Assessing the implementation of a turnaround strategy in a water board

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Mini-dissertation submitted in partial fulfilment of the requirements for the degree *Magister* in *Business Administration* at the Potchefstroom Campus of the North-West University

Supervisor: Prof CJ Botha

May 2014

It all starts here ™

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DECLARATION

I declare that this mini-dissertation is my own work. I further declare that apart from the assistance acknowledged, the research contained in the mini-dissertation is my own unaided work. It is being submitted in partial fulfillment of the requirements for the degree Magister in Business Administration at the Potchefstroom Campus of the North-West University. It has not been submitted before for any other degree or examination to any other University.

I also declare that nobody including Prof CJ Botha (Supervisor), but myself is responsible for the final version of this dissertation.

Mpheteng Patrick Mokubung

Signature.....

Date: 16 April 2014

EXECUTIVE SUMMARY

The research study focused on assessing implementation of the turnaround management strategies in a water board. The location of the study was a water board located in the economic heart of South Africa, Rand Water. The objectives of the study were; (a) to evaluate the turnaround plans implemented in the water sector, (b) to uncover success factors attained when undertaking turnaround plans, (c) to assess selected case studies dealing with the turnaround management strategies in selected industries, and lastly (e) to derive an understanding on determinants and factors that cut across the turnaround plans.

The research approach that premised the study was quantitative methodology, which involved distribution of questionnaires as part of field work in the water board. The questionnaires were analysed through statistical approach, and further linked back to the problem statement posed to the research study. Some assumptions were utilized for conducting the research project, including the statistically acceptable sample. The area of focus in the water board was Strategic Asset Management Division which was selected because of its huge impact in the planning and execution of the capital projects. Infrastructure or capital projects form the core of the business sustainability; they ensure the future of the water as well as the region of the country. Various literatures were reviewed pertaining to the turnaround management strategies and certain inferences were made.

The results provide interesting relationships between variables that can be explored further. There were certain biases that were obtained, and in certain cases there was no relationships between variables and in most cases there were positive relationships. The turnaround management strategies are extensively carried out across the industries. It can be concluded from the research study that there are certain phenomenona that can be derived from the turnaround plans. It can also be deduced that certain factors or determinants demonstrate a better behaviour than others when tested in the turnaround management environment. Models can be developed utilizing regression tools pertaining to

the turnaround plans and adaptation of these models based on conditions or certain unique aspects is recommended to be done.

Keywords: Turnaround, Recovery, Water Board, Crisis, Renewal, Results, Implementation, Determinant, Project

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CHAPTER 1:

INTRODUCTION AND NATURE OF THE STUDY

Turnaround "either a business firm that faces financial disaster or action taken to prevent occurrence of that financial disaster"

Sloma (1999:11)

1.1 INTRODUCTION AND PROBLEM STATEMENT

1.1.1 INTRODUCTION

Market challenges pose danger to the sustainability and perpetuity of the business and results in pre-mature termination of business ventures. The water boards, water services authorities, water utilities, and municipality-linked water entities are not immune to the market forces even if the approach of the public sector is different from the private secto,r but the business imperatives are still valid for both. There are similarities in both sectors that includes appointment of the board that is accountable to the stakeholders, appointment of accounting officer, governance principles apply and due care practices also form the basis of delivering the services required. According to South African Government's Comparative Information on Basic Services (2009:11), Water, sanitation and electricity have been legislated as basic services in South Africa, and therefore, requires special scrutiny from the Government Departments in the way that they are distributed amongst the population and how backlogs need to be addressed pertaining to these services. Businesses in all sectors are faced with prospects of failures if they are unable to deliver on their mandates from their stakeholders. Water boards which have been established for the provision mainly of potable water and in certain cases, sanitation services are governed by myriad pieces of legislation and most notable ones are the Water Services Act No. 108 of 1997, Public Finance Management Act No. 1 of 1999, Public Finance Management Amendment Act No. 29 of 1999, and the National Water Act No. 36 of 1998. The water boards are not well protected from the failures that affect companies of various sizes. The public sector is reflected in the

practices of the corporate or private sector, and vice versa. There are a number of water boards that are operating in South Africa and they vary in size, areas of service, pipeline network installed as well as a number of customers. Water has been identified as a basic service for human beings, and as such people cannot be denied to receive such services. Government departments and institutions have been established to deliver these services to citizens of the country even though sometimes these services are taken for granted, despite their impact on people's lives. Some of the water boards have in the past suffered similar demises to companies in the private sector when certain fundamentals are not taken into consideration, and in some cases other water boards have been put in administration, and some even assisted by the turnaround specialists from other water boards, while others have been dis-established by the Minister of Water Affairs. There have been various reasons for such interventions to be undertaken.

This study looked at the turnaround management strategies that have been implemented in the project management environment of the water board; failed turnarounds, successful turnarounds, lessons, and determinants that can be utilized as lessons learnt for the future and sustainability of such important institutions in a broader society. Most of the business models of water boards in South Africa show that Operations and Capital Projects or Engineering-related divisions form a bigger composition of the total employees in a company. It was for this reason that the developent of the study was initiated in the project environment of the water board in Gauteng.

There are many Acts that have been passed by Parliament that have a direct impact on the water boards to carry out their mandates. Some of these Acts that are in prominence in the operation of water boards are Occupational Health and Safety Act No. 85 of 1993 (OHS Act), Construction Industry Development Act No.38 of 2000 (CIDB Act), and the Amended New Environmental Management Act No. 14 of 2009. (NEMA), Public Finance Management Amendment Act No. 29 of 1999 (PFMA), Water Services Act No. 108 of 1997, National Water Act No. 36 of 1998. There are other legislations that are also applicable in the industry. The water boards in South Africa are in terms of their operational structure report to the Minister of Water Affairs through the Board of Directors. A board of directors is composed of non-executive directors and executive directors. Non-executive directors are drawn from a greater society and are appointed based on the diversity of skills that can assist in taking the business forward. The board of directors is further composed of Board Sub-Committees focusing on certain aspects of corporate governance. In most cases,

boards of directors are divided in the following sub-committees; Audit, Treasury, Capital Investment, Human Resources, Remuneration, Risk and Nominations. There might be variations as to how Board Sub-committees are named and divided. The Chief Executive of the Water Board is also a member of the board of directors that has been appointed by the Minister of Water Affairs. The Chief Executive is the only executive director in the board of directors whilst the rest are occupying non-executive roles.

The study undertaken concentrated in the Strategic Asset Management Division of Rand Water. Rand Water is a water board that has been established in terms of the Water Services Act No. 108 of 1997 to serve mainly Gauteng, parts of Mpumalanga and certain parts of the Northern Free State with potable water. The motivation for undertaking the study at Rand Water was necessitated by the need to address turnaround management strategies wherever they occur. Rand Water is the flagship of the water boards in South Africa in many parameters such as, volume rates of water purified, and distributed, length of pipeline network, the size of Gauteng population compared to other provinces, as well as the size of Capital Expenditure that is utilised on a yearly basis for the infrastructure development.

There are a number of water boards that are operating in South Africa, and some of them are as follow;s Rand Water, Umgeni Water, Bloem Water, Sedibeng Water, Magalies Water, Botshelo Water, Bushbuckridge Water, Lepelle Northern Water, Amatola Water, Overberg Water and Umhlathuze Water. There is a marked distinction between water boards and water-related municipality entities such as; Johannesburg Water, Cape Metro Water, Metsi-a-Lekoa Water, Maluti-a-Phofung Water. In most instances, water boards purify, and distribute potable water in bulk to water-related municipality entities which in turn sell directly to household customers, industrial, mining, farming and other stakeholders. In some instances, water boards sell directly to big industries, mining companies and farming community.

There have been in the past, a number of intervention programs undertaken in the water sector to rescue certain water boards. Some of the interventions have been successful, whilst others have not borne fruit for the shareholders and stakeholders. There are some water boards that have been placed under administration for a number of years, and others that have since been dis-established by the Minister of Water Affairs.

This study investigated turnaround management strategies, turnaround plans, and recovery plans that are done in the project environment of the water board. These interventions usually assisted in the attainment of balanced scorecard measures or objectives which are linked to the overall corporate strategy. There are also other projects or interventions undertaken by the Department of Water Affairs to sustain or stabilize potable water sector in South Africa. One of the most noticeable projects underway is the Water Sector Institutional Re-alignment. This project has been implemented over a number of years, and has resulted in reducing, and consolidating the number of water boards that are operating in South Africa.

This study sought to understand determinants of success in a turnaround environment, and provide information on variables considered in dealing with recovery plans. The other motivation behind this study was that the turnaround strategies are undertaken in all sectors of society, but there is always a mystery surrounding them. There have been other numerous turnaround strategies undertaken in recent years through the national government sphere, and the state-owned companies, such as South African Airways, South African Broadcasting Services (SABC), National Department of Public Works, Telkom, Eskom and other stakeholders. Lessons learnt from this can be shared amongst other entities that are about to embark on rescue plans for distressed companies, while some of these lessons can be applied to the capital projects that are undertaken in water boards.

1.1.2 PROBLEM STATEMENT

Recovery plans and turnaround strategies are implemented in the corporate sector, state-owned entities, and in governments departments. Some of the turnaround strategies have been successful, whilst others have failed dismally. There must be a golden thread that is underlying successful turnarounds, and this need to be identified, and applied to other future interventions in different industries and sectors. This study concentrated on turnarounds applied for ailing or distressed capital projects in a water board.

The assessment conducted looked at the most effective ways of executing or implementing the turnaround management strategies, and recovery plans in the South African water sector, focusing on an identified water board. The purpose of the survey study was to further

understand the turnaround management strategies, and recovery plans as applied to the project environment of a water board. Information obtained from this study can be useful in extracting phenomenological description of themes, and patterns. At this stage in the research, the turnaround management strategies, and recovery plans will be defined generally as the actions taken to bring about a recovery in performance in a failing project, company or even in an organization.

1.2 RESEARCH OBJECTIVES

1.2.1 PRIMARY OBJECTIVES

One of the primary objectives of the study was to evaluate the turnaround strategies, and recovery plans that have been executed and implemented in the project environment within the water sector in South Africa. The study was intended to uncover success factors and patterns for the turnaround strategies and recovery plans. The study was also meant to look at the institutional re-alignment as proposed and in implementation by the Department of Water Affairs. Other perspectives were shared on the demise of certain water boards, such as Botshelo Water, Bushbuckridge Water, and Namakwa Water that were also taken into account.

The study also assessed selected case studies pertaining to the turnaround plans undertaken in various institutions in South Africa and globally. The research undertaken aimed to fill a gap in the literature by examining determinants of successful, and unsuccessful turnaround management strategies, and recovery plans. The research also aimed to gather lessons learnt in the implementation of turnaround management strategies and recovery plans in the water boards in the South African context.

1.2.2 SECONDARY OBJECTIVES

The other objective of the research study was to understand how the turnarounds are undertaken on capital projects in a water board. The focus on the capital projects is of

significance due to the impact of infrastructure development in the water board, and also the service delivery. The effects of service delivery model selected and deployed on communities serves as a link to how people view success or failure of implementers of government policies.

1.3 RESEARCH METHODOLOGY

1.3.1 LITERATURE AND THEORETICAL REVIEW

The following sources of data were utilised in the study:

- Annual Reports of Water Boards
- Water Industry Data
- Official Statistics
- Publicly available Company Data
- Surveys
- People
- Questionnaires
- Dissertations
- Mini-dissertations
- Theses
- Published Turnaround Management Strategy Articles

1.3.2 RESEARCH PARADIGM

A quantitative research methodology was undertaken to uncover some of the variables that contributes to the turnaround management strategies. The quantitative method undertaken involved the distribution of questionnaires to managers and other employees in the project

environment of the water board in order to assess their views on the turnaround management strategies, and also to determine if there were any interventions done in the past and currently. The questionnaires also focused at the outcome of the intervention whether positive or negative. The questionnaires to employees and managers in the water board also addressed issues of lessons learnt. Some advantages brought about by the selected method was the data that can be analysed and to also bring to the fore some of the information which was not publicly available. There is normally a shroud of secrecy surrounding interventions, restructuring, turnaround strategies, and recovery plans in companies. This study aimed to uncover some of these in the project environment of the water board identified.

Literature survey provided major information in terms of what has been undertaken in the various sectors of an industry to deal with issues of business decline. It focused on literature available dealing with the turnaround management strategies in the private sector, public sector and all other avenues that have engaged in such undertakings.

1.3.3 RESEARCH DESIGN

The methodological approach used in the study was a quantitative research design. This study was executed in the form of distributing questionnaires to personnel in the project environment of Rand Water. The responses from the questionnaires were analysed using statistical methods and in this case SPSS Version 21 software. The research approach offered an advantage of minimizing subjective information, and opinions formed around issues on the part of outsiders or people observing from outside the operations of water boards.

1.3.4 POPULATION AND SAMPLING

1.3.4.1 Population

The population of the research consisted of the project environment of the Strategic Asset Management Division of Rand Water. The water sector in South Africa is characterised by National Department of Water Affairs, Water Boards, and Municipality-linked water entities, Catchment Management Authorities, Municipalities, and Implementing Agents e.g. Mvula

Trust, TCTA and others stakeholders. These entities deal with water, sanitation, and water related services. The focus in the study was based on the potable water side of the business, which is the primary mandate of water boards. Sanitation and other activities were considered as secondary for the purpose of this research.

1.3.4.2 Sample and Sampling Method

The sample for the research project was made up statistically for applicable employees within the project environment of the Rand Water. The estimate used to calculate quantity required pointed out that approximately 82 questionnaires that were distributed to employees who formed part of estimated 313 possible participants head count within the Strategic Asset Management Division. It must also be taken into consideration that only about 30 % of 273 employees were sampled due to approximately 15 % vacancies amounting to 47 employees. The Strategic Asset Management Division is headed by a General Manager who reports to the Chief Operating Office. The direct reports of the General Manager: Strategic Asset Management are: a) Senior Manager: Project Controls, (b) Senior Manager: Assets, c) Senior Manager: Strategic Projects, and d) Senior Manager: Capital Projects. The sample undertaken represented a 30 % response rate which is a statistically acceptable percentage for the purpose of the project.

Table 1: Sampling Respondents

DESCRIPTION OF RESPONDENT TYPE	JOB TITLES	NUMBER TO BE SAMPLED
General Manager	General Manager: Strategic Asset Management	1
Senior Managers	Senior Manager: Assets, Senior Manager: Capital Projects, Senior Manager: Strategic Projects, Senior Manager: Project Controls	4
Section Managers	Asset Managers (Civil, Buildings, Mechanical,	16

	Process, Electrical, Automation, Pipelines), Programme Managers, Construction Services Manager, Surveying Manager, SAM SHERQ Manager	
Project Managers	Project Managers from various Systems	30
Project Execution Engineers	Project Execution Engineers (various disciplines)	30
Asset Engineers	Asset Engineers (various disciplines)	20
Quality Control Supervisors	Quality Control Supervisors from various systems	10
Quantity Surveyors	Quantity Surveyors (different systems)	4
Project Execution Partners	Project Execution Partners (from various Consulting Engineers' Companies)	10
Project Administrators	Project Administrators (various systems)	5
Project Schedulers	Project Schedulers (various systems)	5
Project Accountants	Project Accountant (from Project Finance)	4
Construction Services Manager	Land and Rights, Encroachments, Land Surveying, Safety	1

Surveying Manager	Land Surveying Manager	1
SAM SHERQ Manager	Safety, Health, Environmental, Risk and Quality Manager	1
SHERQ Officers	Safety, Health, Environmental, Risk and Quality Officers (supporting Projects)	5
Quality Management Officer	Quality Officer	1
Risk Control Investigation Officer	Risk Control Investigations o	1
Land Surveyors	Land Surveying	5
Surveying Assistants	Land Surveying	5
ESTIMATED TOTAL		159

The study aimed to obtain a response rate of 80 % which was 82 questionnaires out of a total of 103 questionnaires distributed to the participants. Gatekeepers or Managers of different areas (Division, Departments, and Sections) were contacted to gain permission to their employees or subordinates in order to collect information. Permission to conduct the study was sought from the Senior Manager: Capital Projects by the Researcher confirming that the researcher is a student at the university and explaining the intentions of undertaking the study. The letter to request permission for data collection which formed part of the questionnaire distributed also emphasized that the research was done for academic purposes.

1.3.5 THE RESEARCH INSTRUMENT

The research instrument used was an open-ended questionnaires targeted to employees in the project environment of Rand Water. Various instruments that were used in the past to

gather research information on this topic were adapted to meet the requirements of the study and utilised for the purpose of the objectives.

1.3.6 PROCEDURE FOR DATA COLLECTION

Data was gathered by means of a questionnaire that were sent out to various participants that formed the sample of the study in the form of an attachment on electronic mail or a hard copy questionnaire sent to various electronic mails addresses with the letter of permission requesting to conduct the research study at the Rand Water.

1.3.7 DATA ANALYSIS AND INTERPRETATION

Only the most appropriate statistical tools were utilized to analyse the data received from the respondents. The tool used in this case was SPSS version 21. Some of the following statistical methods that were used including the standard questionnaire analysis having different facets were as follows:

a) Exploring:

- Frequencies and Descriptive Statistics

b) Comparisons:

- Correlations, T-tests, and ANOVA

c) Factors:

- Exploratory, Reliability, and Scores

d) Predictions:

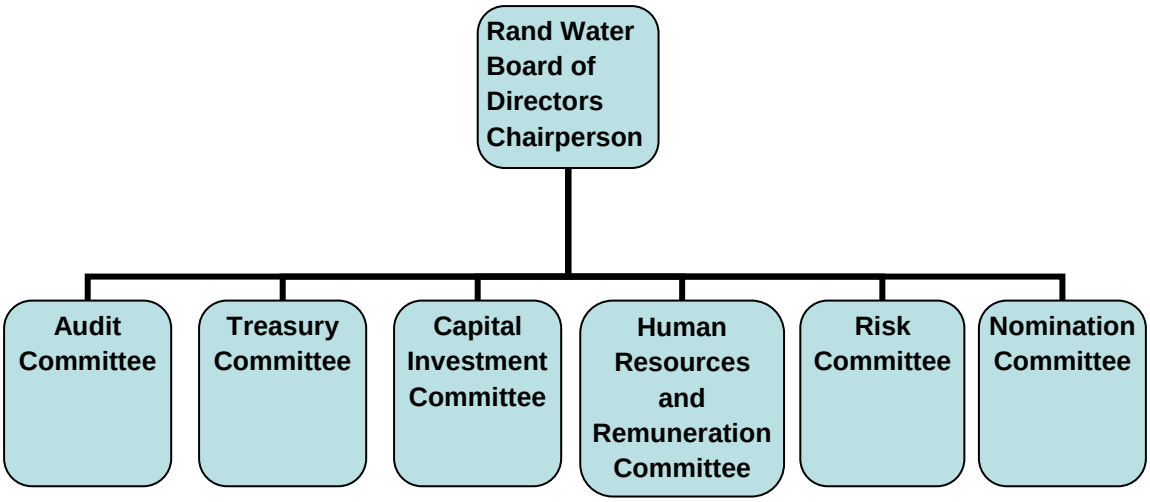
Regression was utilized for the purpose of making predictions for the purpose of the study. These methods were explored further and the most appropriate ones were applied to the study. Some methods were tried further to reveal any other factors or attributes that have been missed initially. Some included conducting Post Hoc Tests and Exploratory Statistics.

1.4 Water Board: Rand Water

The study was undertaken at the water board located in Gauteng by serving customers in Gauteng, Free State, Mpumalanga and North-West. According to Water Services Act No. 108 of 1997 (1997:10), water board is defined as an organ of the state established or regarded as having been established in terms of this Act to perform as its primary activity, for public function.

The Water Services Act (1997: 30), further states that the primary activity of the water board is to provide water services to other water service institutions within its service area. According to Rand Water Integrated Annual Report 2011-2012 (2012: 2), Rand Water serves customers in excess of 12 million people with world-class potable which meets the requirements of SANS 241: 2005 water quality standard. Rand Water Annual Report 2010-2011 (2011:10), states that Rand Water is the largest water utility in Africa. It further discusses that Rand Water's success is linked to the growth of the City of Johannesburg. Rand Water has a network of pipelines in excess of 3000 kilometres, and more than 58 reservoirs and a footprint in four (4) of the nine (9) provinces of the Republic of South Africa.

<u>Figure No. 1:</u> Rand Water Board of Directors' Structure



Source: Rand Water Integrated Annual Report 2011-2012 (2012:32)

***Table 2:* Roles and Responsibilities of Board Sub-Committees**

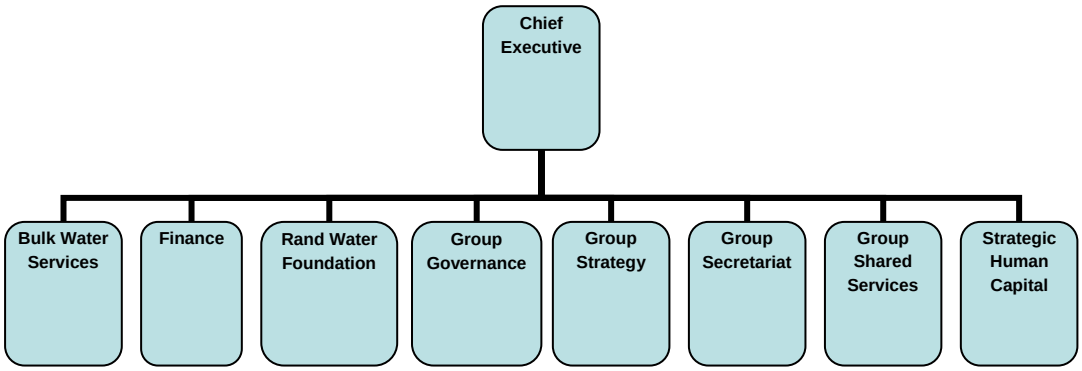
Board Sub-Committee	Roles and Responsibilities
Audit Committee	Oversight and advisory role on the following: • Compliance to Section 51 of PFMA and National Treasury Regulations • Financial reporting • Financial information • Risk management processes • Internal financial controls • Internal and external audit • Performance monitoring and evaluation • Ethics, legislative and regulatory compliance
Treasury Committee	Oversight and advisory role on the following: • Monitor adherence to performance of investment strategies in order to ensure proper governance of investment process • Review funding strategy, investment strategy, hedging strategy and counterparty limits • Develop treasury risk management policy • Development and implementation of treasury related policies and procedures • Development and implementation of

	investment, funding and liquidity strategies • Regularly assess Rand Water's credit worthiness • Assist and monitor issuance of Rand Water's stock, financial instruments, funding structures and their tax implications
Capital Investment Committee	Oversight and advisory role on the following: • Optimally control major capital investment • Approval of capital investment projects
Human Resources and Remuneration Committee	Oversight and advisory role on the following: • Development of remuneration policies for non-executive members that create value for Rand Water • Directing the administration of the bursary scheme • Establishment and implementation of human resources policies
Risk Committee	Oversight and advisory role on the following: • Approval of enterprise-wide risk management plan • Implementation by management of the approved risk management process • Regular review and improvement of the risk management strategy • Implementation and effectiveness of risk

	management
Nominations Committee	Oversight and advisory role on the following: • Formal succession plans for the Board, Chief Executive and Senior Management appointments • Induction, an on-going training, and development of board members • Board members are appointed through formal process • The Board has appropriate composition for it to execute its duties effectively

Source: Rand Water Integrated Annual Report 2011-2012 (2012:33)

<u>Figure No. 2:</u> Modified Rand Water Structure



Source: Rand Water Annual Report 2010-2011 (2011:11)

Rand Water's Chief Executive is responsible for the overall direction of the water board. The Chief Executive is also the Accounting Officer of the water board. The overall direction of a business includes; development and integration of corporate strategy. This is achieved by rolling out corporate strategy through portfolio strategy. Portfolio Strategies are developed,

and put into action through the Chief Operating Officer, Chief Financial Officer, and Group Executives responsible for certain areas of the business.

Portfolio strategies are then translated into divisional strategies through the General Managers. Divisional Strategies are then divided into Departmental Strategies. Departmental Strategies then inform the Sectional Strategies. Corporate and Portfolio Strategies can be considered as strategic level of the organisation. Divisional, Departmental, and Sectional Strategies can be taken as operational level of the business. One of the critical components of running a business is to ensure that there is an alignment between different levels of the business and also results required by the shareholders are achieved continuously.

According to Rand Water Integrated Annual Report 2011-2012 (2012: 10), Rand Water as a business and an important water utility in South Africa is driven through the following pillars:

Rand Water Vision:

- To be a provider of a sustainable universally, competitive water and sanitation solutions for Africa.

Rand Water's vision is looking foward and showing management's aspirations. It further shows long-term direction in breaking boundaries and conquering the rest of Africa in water and sanitation solutions. The market is defined, but not very clear as it generalises, and Africa is made up of approximately fifty two (52) countries. It will be difficult to expand in all African countries either simultaneously or even gradually. The good thing about Rand Water's vision is that it gives a sense of direction.

The strategic vision is lacking in terms of being distinctive. It can be some other company's vision as it lacks the uniqueness that links it up with Rand Water. The product is well identified. The customers are not distinguished whether they are bulk provision, governments, municipalities, households, mining houses or factories. It is not really a memorable vision and in turn it also lacks inspiration.

Rand Water Mission:

To deliver, and supply world class affordable, reliable and good quality water, and related services to all stakeholders through:

- Safe, efficient transport, sustainable and innovative business practices
- Empowered employees
- Mutually beneficial strategic relationships
- Legislative compliance and best practice

Rand Water's Mission Statement is addressing elements of current business, and purpose of the company. It further highlights other points relating to safe product, affordable, and reliable supply. Strategic partnerships are very crucial in the intentions of Rand Water.

This somehow contradicts itself by putting together issues of sustainability, world class, and good quality. In certain cases, it can be contradicting due to tariffs which are regulated, and might not give the company enough capital to go on a serious expansion. Mode of transport might be a challenge when tackling a wider scope of customers in different countries on the continent.

Rand Water's Strategic Objectives:

- Achieve Operational Integrity and Use Best Fit technology
- Achieve a High Performance Culture
- Positively Engage Stakeholder Base
- Achieve Growth
- Maintain Financial Health and Sustainability

The Rand Water's Strategic Objectives are excellently done as they form the basis for performance targets. They are broken into doable activities at operational levels. They are also aligned very well with the Company's Vision and Mission Statement.

Rand Water Values:

- Integrity
- Equity
- Spirit of Partnership
- Excellence
- Caring

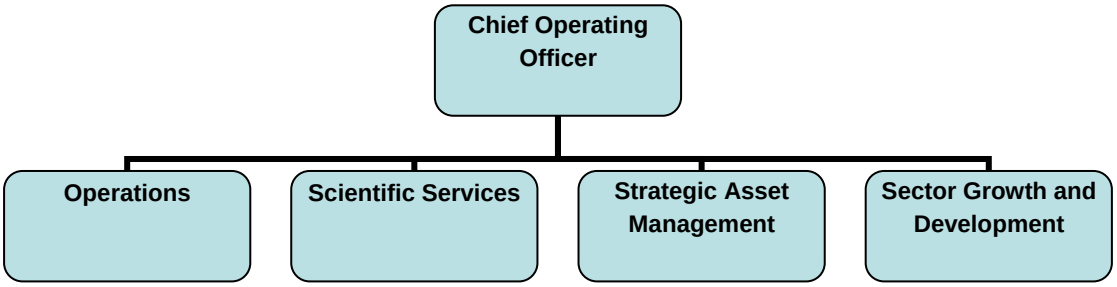
Some of the actions that are done to encourage living of the Company's values by the Rand Water employees are as follows:

- The appointment of Values Champion in most of the meetings in order to evaluate the meeting against the values and give a score. Meeting Values Champion also comments about areas of improvement.
- The Values Champions are also appointed at different sites to encourage behaviour that is characterising Rand Water employees.

Rand Water is ideally not a values-driven company in the true sense, whereby values that are required in the organisation are measured as part of the performance management system. During interviews for making new appointments the same values are checked on the potential candidates as well. Some work is required to get to the level of a values-driven organisation.

The focus area of the study was the Bulk Water Services Portfolio which is headed by the Chief Operating Officer. The focus area in the Bulk Water Services was the Strategic Asset Management Division and in particular, Capital Projects Department.

<u>Figure No. 3:</u> Modified Bulk Water Services Structure (COO's Portfolio)



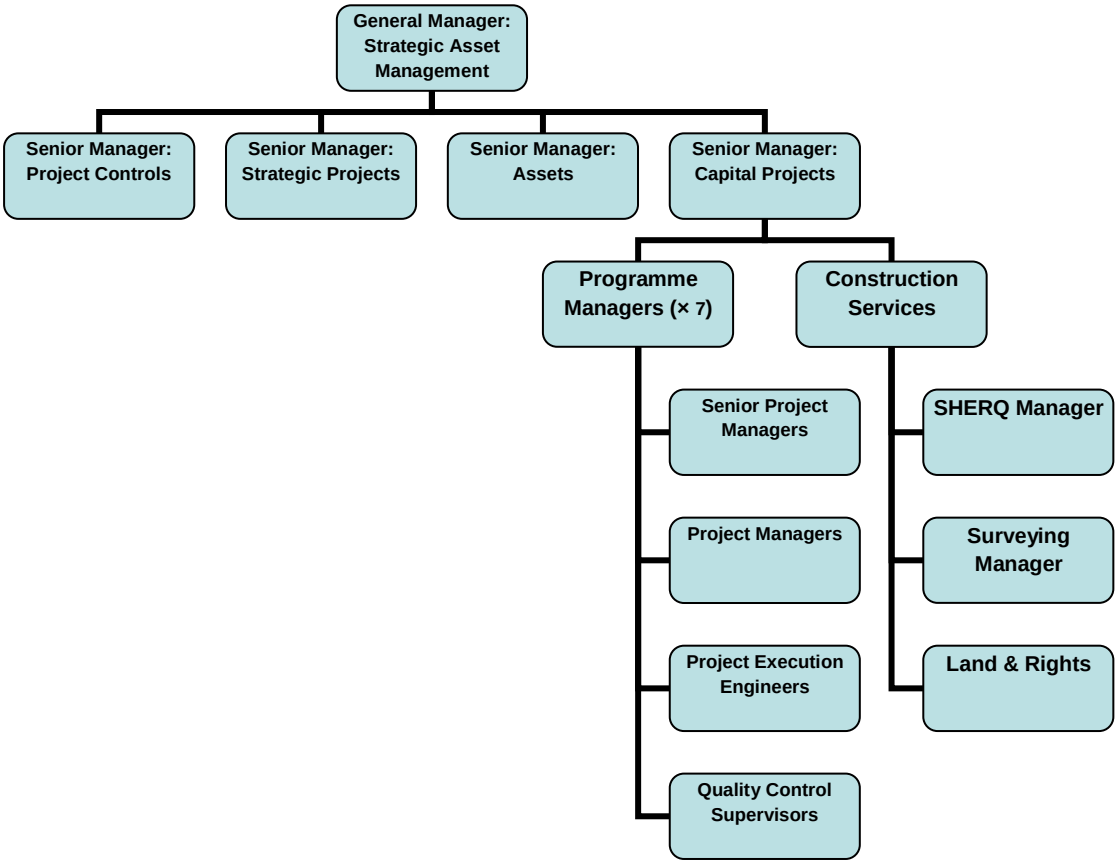
Source: Rand Water Annual Report 2010-2011

Bulk Water Services Portfolio is made up of four divisions: Operations, Scientific Services, Strategic Asset Management, and Sector Growth and Development. The area of focus in the study is located Strategic Asset Management Division. Strategic Asset Management deals with the intellectual property of Rand Water, and it is focused in the core function or the primary mandate of Rand Water. Bulk Water Services Portfolio is currently the largest in terms of head count or employees in the organisation.

Capital Project under Strategic Asset Management Division

Capital Projects Department under Strategic Asset Management Division is responsible for executing capital projects at various sites of Rand Water. Capital projects are essential components of the Rand Water corporate infrastructure development. This entails the augmentation of existing infrastructure, renewal and refurbishment of existing infrastructure. Some of the activities includes; compilation of capital expenditure budget, capital expenditure budget administration, obtain approvals from various authorities to undertake projects, management of contractors at sites, payment of contractors, quality assurance, and control on projects, stakeholder management on projects, and commissioning and handover of projects.

***Figure No. 4:* Strategic Asset Management Division Structure**



1.5 LIMITATIONS

Some of the limitations of this study are:

- The study focused on one water board in South Africa where there were fifteen (15) water boards in the past. They have since been reduced to nine (9) water boards with plans to reduce further as per the requirements of the Institutional Re-alignment Project under the auspices of the Department of Water Affairs.
- The study did not cover all aspects of the turnaround strategies. There were certain selected aspects that formed the basis of the assessment.
- The study was also limited by the scarce academic literature on the turnaround management strategies, and recovery plans.
- The investigation was limited by resources, such as location, time, and information.

- The study excluded municipal water entities that are purchasing water in bulk from other water boards to sell directly to the customers.
- The study excluded other industries whereby the turnaround management strategies are also applicable.
- The study did not cover all the aspects of the turnaround management strategies, and recovery plans.
- Insufficient information was available for perusal, and most of the available information was in the form annual reports, and other publicly available publications.

1.6 CHAPTER DIVISION

The chapters in the dissertation were divided as follows:

CHAPTER 1: INTRODUCTION AND NATURE OF STUDY

1.1 INTRODUCTION AND PROBLEM STATEMENT

1.1.1 Introduction

1.1.2 Problem Statement

1.2 RESEARCH OBJECTIVES

1.2.1 Primary Objectives

1.2.2 Secondary Objectives

1.3 RESEARCH METHODOLOGY

1.3.1 LITERATURE AND THEORETICAL REVIEW

1.3.2 RESEARCH PARADIGM

1.3.3 RESEARCH DESIGN

1.7 CHAPTER OUTLINE

TABLE 3: Chapter Outline

Chapter 1	Introduction and Nature of Study	Chapter focuses on the nature and the context of the study.
Chapter 2	Turnaround Management Strategies	Various theoretical models and case studies pertaining to turnaround management strategies are reviewed and compared.
Chapter 3	Empirical Method	Chapter 3 deals with empirical research taking into consideration population, sample, selection of sample, research approach and basis of thereof.
Chapter 4	Reporting and Discussion of Results	Results obtained from the empirical research are reported and discussed in terms of themes and statistical analyses used.
Chapter 5	Recommendations and Conclusion	The chapter discusses recommendations and conclusions that can be derived from the study. It further deals with further gaps that can be closed by pursuing different approaches, context and setting of the study.

1.8 RESEARCH PLANNING

Table 4: Time Plan for the completion of dissertation report by 25 October 2013

	21 Jan 13	01 Feb 13	1 April 13	15 May 13	15 Aug 13	4 Oct 13	25 Oct 13
Finalize Research Proposal							
Gain Approval							
Finalize Chapter 1							
Finalize Chapter 2: Literature Review							
Finalize Chapter 3: Research Findings and Discussion							
Submission of Final Copy to Study Leader							
Finalize Report							

1.9 DEFINING MAJOR CONCEPTS

Strategy:

According to Merriam-Webster Encyclopedia, (2013), Strategy is defined as the art of devising or employing plans or stratagems towards a goal.

Organizational Turnaround or Recovery Plan:

According to Pandit, (2000), Organizational turnaround is defined as actions taken to bring about a recovery in performance in a failing organization.

Institutional Realignment:

Institutional Realignment; document produced by the Department of Water Affairs to deal with the intended restructuring of water boards in South Africa to address some of the recurring problems according to (www.dwa.gov.za) (2013).

Department of Water Affairs:

The South African Government's Department of Water Affairs is defined as the custodian of South Africa's water resources. It is responsible for the formulation and implementation of policy governing the sector. It has an override responsibility for water services provided by the local government.

Project:

According to PMI Lexicon of Project Management Terms (2012:13), a project is defined as a temporary endeavour undertaken to create a unique product, service, or result. According to Burke, (2011) a project is defined as a unique undertaking to achieve pre-determined objectives.

Environment:

According to www.oxford dictionaries.com (2013), Environment is defined as the aggregate of surrounding things, conditions or influences, surroundings, milieu. Another definition of environment is the social and cultural forces that shape the life of a person or a population.

Water Board:

Water Board is defined in the Water Services Act No. 108 of 1997 as an organ of state established in terms of the Act to perform as its primary activities, a public function of water supply services and sanitation services.

Project Management:

Burke, (2011:367) defines Project Management as the application of knowledge, skills, tools and techniques to project activities in order to meet stakeholders' needs and expectations from a project.

1.10 ABBREVIATIONS

ANOVA: Analysis of Variance

CE: Chief Executive

CIDB: Construction Industry Development Act

CMA: Catchment Management Agency

COO: Chief Operating Officer

Dept: Department

DoH: Department of Health

DPW: Department of Public Works

DWA: Department of Water Affairs

EMS: Emergency Medical Services

ESKOM: Electricity Supply Commission

EPS: Earnings per share

EPWP: Expanded Public Works Programme

Fact: Factor

GDP: Gross Domestic Product

GM: General Manager

GOV: Government

HIS: Health Information System

HR: Human Resources

IDC: Industrial Development Corporation

IDP: Integrated Development Plan

IN: India

IR: Indian Railways

LAN: Local Area Network

LCV: Light Commercial Vehicle

MBA: Masters in Business Administration

MDS: Market Demand Strategy

Metro: Metropolitan

ML/D: Mega litres per Day

NEMA: National Environmental Management Act

NWA: National Water Act

OSHACT: Occupational Safety and Health Act

PEE: Project Execution Engineer

PFMA: Public Finance Management Act

PHC: Primary Health Care

PIC: Portfolio Integrating Committee

PM: Project Manager

ProgM: Programme Manager

QCS: Quality Control Supervisor

QMO: Quality Management Officer

REMCO: Remuneration Committee

RW: Rand Water

SAA: South African Airways

SABC: South African Broadcasting Corporation

SAM: Strategic Asset Management

SANS: South African National Standards

SHERQ: Safety, Health, Environmental, Risk and Quality

Sig.: Significant

SMME: Small, Medium and Micro Enterprises

SPSS: Statistical Package for the Social Sciences

TMS: Turnaround Management Strategy

TCTA: Trans-Caledon Tunnelling Authority

WSA: Water Services Act

YRS: Years

$: Dollar

%: Percent

CHAPTER 2: TURNAROUND MANAGEMENT STRATEGIES

CHAPTER 2:

TURNAROUND MANAGEMENT STRATEGIES

"Strategic Managers believe that such firms can survive and eventually recover if a concerted effort is made over for a period of a few years to fortify its distinctive competences. This grand strategy is known as the turnaround."

Pearce & Robinson (2000)

2.1 Introduction

The method used for conducting a literature survey or literature review in this study is a variation of funnel method whereby major works in the field of the turnaround management strategies are looked in terms of a theory base, and how they evolved until the current time. This is investigated through a method of categorising different industry sectors, such as the public against private. Categorising also involves going into the above mentioned industry sectors, and taking particular ones whereby there has been a public knowledge of the turnarounds being undertaken. It eventually focuses closely to the environment of interest which located within the water sector in South Africa.

The turnaround is defined by Sloma (1999:11), as a business firm that faces financial disaster or action taken to prevent the occurrence of that financial disaster. There has been a lot of turnaround management strategies implemented in various companies, and organisations. Some of the recently implemented turnaround strategies in South Africa are South African Broadcasting Corporation (SABC), South African Airways (SAA), National Department of Public Works, Botshelo Water and others private sectors. Academic literature on the turnaround management strategies in South Africa is very scarce. Turnarounds can also be referred to as the corporate renewals or recovery plans in certain cases.

Turnarounds are different from the normal management and therefore, requires the different types of skills than in the normal course of business. Definition given by Brandes and Brege (1993:92), defines a turnaround as "a process that takes a company from a situation of poor performance to a stuation of a good sustained performance ". In Robbins and Pearce (1992), a turnaround is further defined as the " performance decline followed by performance

improvement". From all these definitions it can be derived that there are signs that prompt for a turnaround strategy, and it can also be seen that the turnaround strategy is out of the ordinary, and requires a different approach from the ordinary or day to day operations.

Review of the past research involving the turnaround management strategies is being addressed by means of looking at the turnarounds in general, followed by the turnaround strategies in the private, and public sectors, and then lastly the turnaround management strategies in the water sector involving water boards. According to Harvey (2011:16), the turnaround process has some stages that need to be recognized.

Literature review is presented in the following manner in the report:

- Background of the study is provided,
- The turnaround management strategies in the private sectors are looked at by using Tata Motors Turnaround Case Study as a representative,
- The turnaround management strategies are perused in the South African context by making use of Case Studies, including Masilonyana Local Municipality Turnaround Plan, Transnet 4-Point Turnaround Plan, Gauteng Department of Health Turnaround Plan, and the National Department of Public Works,
- The Turnaround Management Strategies in the Public Sector Context by making use of an Indian Railways Case Study
- This is followed by the Turnaround Plans for the water sector which is a focus of the study,
- Determinants of the Turnaround Management Strategies are discussed,
- And, then finally Literature Review is concluded.

It can be seen from the different definitions of the turnaround management strategies that the common threads described points out to decline in business indicators, and has to turn the corner by implementing drastic actions to return to normality. Different sources are also showing that the recognition by people in charge has to happen, then followed by identifying

key shortfalls in the business, and finally implementing the various actions that will turn a poor performer business into a star business.

2.2 BACKGROUND DISCUSSION

Literature survey or review undertaken is taken from a broader sense, that is the turnaround management strategies wherever they occur. It is then taken through a funnel format from the public and private sectors. Inputs from these sectors are further refined to focus on mainly the public sectors. It is then eventually selected for the water sector, and water boards both locally, and internally. There have been instances of the turnaround management strategies that are unleashed in many instances whether succesfully or unsuccesfully. Consideration is also given to the case studies that have been produced over a number of years on the turnaround management plans.

The turnaround strategy developed by Harrigan, (2012:2), describes a basic turnaround model which is made up of the triage of critical ingredients required for a succesful turnaround:

- Capital Markets; there must be a will to refinance distressed debt at a reasonable cost of capital,
- Feasible Corporate Strategy; entails generation of attainable forecast of cashflows that will repay new debt, and
- Organizational Arrangements; changes required in how the distressed firm's organization will operate must be feasible in order to implement, and carried out by enthusiastic employees.

It can be seen that the turnaround management practitioners and specialists can take these triple inputs for delivering excellent results from poor performance and then utilize them as part of their toolbox. These are the three factors as stated by Harrigan (2000:2), and can be compared to the others. They seem to be looking internally, and externally into the organisation. Their markets are where the business operates, and the market forces are acting all the time in such a space. Corporate strategy looks at many made things in the

business through both inward and outward approach. Organizational arrangement could also mean organisations are structured and divided into levels.

2.3 TURNAROUND MANAGEMENT STRATEGIES IN THE PRIVATE SECTOR

Turnaround management strategies or the turnaround plans have been implemented in the public sectors as well as in the private sectors. Some of the case studies that are prominent for the private sector entities includes Tata Motors Way Case Study. According to the Tata Motors Turnaround Case Study shown in the Tata Motors Limited Annual Report 2004-2005 (2005: 205) showed the following points below:

2.3.1 Tata Motors Turnaround Case Study

According to Tata Motors Limited Annual Report 2004-2005 (2005:205), Tata Motors embarked on a turnaround plan due to a loss of 6 % of turnover incurred in 2001. This occurred as a shock to the executives of Tata Motors, and it necessitated to re-look at their strategy at that time and assisted in shaping their future strategies including the turnaround journey. The other performance indicators that showed that the turnaround plan was required included a decline in earnings per share (EPS), and no dividends for financial years 2000/2001, 2001/2002. Some of the questions that needed to be responded to were as follows:

- What is happening to the industry globally?
- Which segment would drive the future growth for the company?
- What would be the main drivers of the business in the new scenario?

The initiatives of Tata Business Excellence Model, and Balance Score Card were utilized as the platforms for the turnaround plan which was implemented.

There were 3 distinct phases of the turnaround strategy:

- Phase 1: 2001 to 2003 Cost Reduction Initiatives

  Cost reduction measures included a massive cost cutting, improvement in working capital management, fund raising, and deployment within the company.

- Phase 2: 2003 to 2006 Domestic and International Growth through New Products, Sales and Services
- Phase 3: 2006 and beyond Long-term growth from increased business in LCVs, new products, and new geographies

Some elements of the Tata Motors Turnaround Strategy:

- Balanced Scorecard Framework:
    - Finance
    - Customers
    - Business Processes
    - Learning and Growth

The Tata Motors Turnaround Case Study can illustrate that many factors were considered when embarking on a turnaround strategy. Some of the indicators could also be consistently poor in results over a number of financial years for a certain company. Pressure to act or turn around could come from different sources all at once or individually. Stakeholders form a crucial element input due to their role of expecting increasing results, and dividends each and every year for the company.

2.4 TURNAROUND MANAGEMENT STRATEGIES IN THE SOUTH AFRICAN CONTEXT

In the local, South African setting there has been a number of turnarounds that have been undertaken. Some notable ones being South African Airways went through a major turnaround, Transnet has developed a Four-Point Turnaround Plan, Masilonyana Local Municipality has gone through a turnaround plan, and McCarthy Group went through turnaround plan as well under the guidance of Brand Pretorius. The list of turnarounds undertaken, whether succesfully or unsuccesfully are too many to be counted. There must be some event or series of events that leads to a turnaround to be embarked on. The

turnaround plans have not been limited only to a particular sector of our society, but it cuts across all walks of life. In the case of the South African Airways, and South African Broadcasting Corporation, it seems as if they have been operated under the turnaround plans or variations thereof for a number of years.

There is not a lot of literature in the form of academic books that have been written on the turnaround management strategies, and recovery plans in South Africa. There are documents that companies, and organisations intended for their own use in guiding the turnarounds that are publicly available.

2.4.1 Masilonyana Local Municipality 10-Point Turnaround Strategy Case Study

According to the Masilonyana Integrated Development Plan for 2011/2012 Chapter 3 (2012:14), dealing with the Development Strategies states that the 10-Point Turnaround Plan was adopted in February 2010. Masilonyana Local Municipality which forms part of Lejweleputswa District Municipality, and serves the following towns; Verkeerdevlei, Brandfort, Soutpan Theunissen, Winburg, Ikgomotseng, Makeleketla, Tshepong, Masilo including their rural areas. Masilonyana Local Municipality is located in the central Free State.

The objectives of Masilonyana Turnaround Plan as mapped out in the Masilonyana IDP 2011-2012 (2012:14), were as follows:

- The creation of effective, efficient, and economical Municipality;
- To decentralize the Municipality, and take quality services to the people;
- To maximize usage of the current staff to the maximum capacity; and
- To create a platform for a proper monitoring, and evaluation of work undertaken by the Municipality

In response to the challenges stated above the following points were then developed:

- Restructuring of the Political Office
- Establishment of the Executive Office
- Synchronization and Re-alignment of Political and Management Meetings

The challenges identified by the Masilonyana Local Municipality are duplicated in many municipalities around the country emanating from the integration of different towns to form a new municipality. The turnarounds are necessitated by situations at a point in time. The root causes or even symptoms of the problems that are in the municipalities or any entity for that matter, need to be addressed, otherwise they escalate further to uncontrollable proportions.

Metropolitan Municipalities, Local Municipalities and District Municipalities are grappling with challenges that are common in the local authority area but are also showing similar symptoms in the parastatals, and other sectors. According to The Times, (12 September 2013:1), SAA has embarked on the 9th turnaround strategy in 13 years; it certainly means that the South African Airways has been forced to convert to a turnaround mode on almost permanent basis. This does not reflect well with all the stakeholders, and sustainability of the business.

2.4.2 Transnet Four-Point Turnaround Plan Case Study

According to Transnet Annual Report Overview 2009-2010 (2010:4), Four-Point Turnaround Plan was developed for stabilisation of the Transnet company. This was done in response to the situation at Transnet in 2004/2005 which was characterised by the following:

- Lack of clear strategic direction
- Weak financial performance and controls
- Unfocused and inefficient business structure – significant non-core investments
- Low morale: Lack of investment in Human Capital
- Poor risk management and governance

- Lack of capital investment

Transnet Four-Point Turnaround Strategy in response to the problems which were identified:

- Develop Human Capital
- Ensure Corporate Governance and Risk Management
- Strategic Balance Sheet Management
- Re-directing and Re-engineering the Business

The problems listed above are wide ranging including people management, financial management, strategic management, and risk management. The required response needed to also be wide-ranging in order to be able to address these challenges adequately. It could be assumed that the turnaround plan or a series of the turnaround strategies since 2004/2005 have finally yielded results as Transnet has been performing well in recent years. Transnet went through tumultous years, and has finally settled or stabilised and is currently going through the implementation of Market Demand Strategy with a roll-out of massive capital investment over a number of years.

In the previous financial year 2012-2013, Transnet has shown improvement since the conception of the turnaround plan was devised. It has gone through a number of changes over the years of different boards and Chief Executive Officers. Some elements of the turnarounds are also linked up to the top management team that you have in an organisation or company.

2.4.3 Gauteng Department of Health Turnaround Plan Case Study

According to Social Development and Health Strategic Plan from 2009 to 2014 (2009), the Gauteng Provincial Department of Health has developed Gauteng Health Turnaround Strategy to address 8 core problems or challenges:

1. Finance and Financial Management;

Some of the challenges faced up with the Finance and Financial Management context are:

- Efficient and effective contract management
- Effective budget implementation and management
- Clearing accruals and debt

2. Human Resources Management and Development:

   Findings of the study revealed the following problems relating to Human Resources Management and Development are to;

   - Accelerate filling of vacant funded posts in key health professional categories; and
   - Rationalisation of staff establishment to the management expenditure on employees, and to provide good quality health services.

3. District Health Services for Primary Health Care:

   - Ensure responsive Emergency Medical Services and infrastructure systems including for Planned Patient Transportation; and
   - Align budget and human resources to priorities to support District Health Services.

4. Hospital Management:

   - Strengthen management of resources in hospitals; and
   - Provide, and maintain the necessary hospital physical infrastructure

5. Medico Legal Services and Litigation:

   - Reduce rates of adverse events and medical negligence
   - Reduce contingent liabilities from litigation costs
   - Reduce work environment related risk

6. Health Information Management and Health Information Systems:
    - Update technology equipment and LAN to provide support, and maintenance on equipment; and
    - Enhance connectivity in all facilities to improve efficiency.

7. Communication and Social Mobilization:
    - Clearly articulated communication strategy; and
    - Streamline responses to compaints from public for positive media publicity.
8. Health Infrastructure Management and Development:
    - Health infrastructure refurbishment and rehabilitation;
    - Raise capacity for effective project management; and
    - Improve expenditure on capital projects (construction and maintenance).

Ten-Point Action Plan for the Gauteng Health Turnaround Strategy (2012-2014):

1. Improve Health Outcomes
2. Generate Revenue
3. Manage Information
4. Communicate and Mobilise Communities
5. Rehabilitate and Revitalise Health Infrastructure
6. Provide Strategic Leadership
7. Manage Finances and People
8. Provide Information Communication and Technology Infrastructure
9. Resource Health Services with intensified focus for Primary Health Care Services
10. Effective management of contracts and partners

2.4.4 National Department of Public Works Turnaround Strategy Case Study

According to Department of Public Works Annual Report 2011-2012 (2012:19), a presentation of the National Department of Public Works Turnaround Plan was done to the South African Parliament's Portfolio Committee on Public Works on the 28th February 2012. Some of the issues that are highlighted by the timelines with major initiatives, and organisational change are as follows:

- Management personnel to portfolio ratio relatively much higher than other commercial companies;
- Discontinuation of workshops;
- Failed restructuring around 2001 to 2004 during the late Minister Stella Sigcau's term;
- Failed implementation of Zimisele Performance Improvement System and Introduction of Accommodation Charges during the terms of Ministers Thoko Didiza and Geoff Doidge spanning for 2007 to 2010; and
- Corruption investigations from 2010 to current (Ministers Geoff Doidge, Gwen Mahlangu-Nkabinde, Thembelani Thulas Nxesi).

The Department of Public Works Annual Report 2011-2012 (2012:19), also highlights some of the challenges facing the Department of Public Works which included:

- Client's dissatisfaction and allegations of corruption;
- Inappropriate recordings/systems/processes and reporting;
- Limited succes in the implementation of policies such as 1997 White Paper, Construction White Paper, and Property and Construction Charters;
- Increasing rate of change for the executive and administrative leadership;
- The turnover rate of Directors-General, Deputy Directors-General and Chief Directors;
- Low worker morale;

- Escalation of construction costs through poor planning/policy/supply chain management;
- Corruption;
- Under-spending by the infrastructure and EPWP programmes;
- Violations of the PFMA and Treasury Regulations, including supply chain management rules; and
- Lack of technical capacity to plan, implement, and report on reports.

The Turnaround Plan Actions:

[Department of Public Works Annual Report 2011-2012 (2012:19)]

The actions are divided into 3 areas which are; Stabilisation, Systemic and Transformation.

Stabilisation Actions:

- Asset Register
- Audit of areas of progress and challenges
- Lease advisory team
- Clean Audit

Systemic Reviews:

- Structured review by staff in each business area

Transformation Agenda:

- It will be informed by the other two areas i.e. feedback from systemic reviews and stabilisation actions.

It can be seen from the list of problems, and challenges that many government departments in different spheres either at national, provincial and local levels. These problems have accumulated over number of years.

2.5 Turnaround Management Strategies Plans in the Public Sector

2.5.1 Indian Railways Turnaround Plan Case Study

According to Gupta & Sathye (2008:1), Financial Turnaround of the Indian Railways is considered as a one of the succesful ones in the public sectors. Various variables including the world's largest employer which consisted of 1.5 million employees, boosting of revenues by 15.5 % without raising fares, profit of $ 2.5 billion in the financial year of 2005/2006, and also that India Railways contribute 1 % of the GDP to Indian economy are some of the measures used to compare success attained.

Table 5: World's Largest Employers (in terms of employees)

World's Largest Employers

	Company/Organisation	Employees	Headquarters	CEO/Head
1	US Dept of Defence	3.2 million	Washington, D.C.	Leon Panetta
2	Chinese Army	2.3 million	Beijing	Hu Jintao
3	Walmart	2.1 million	Bentonville, Arkansas	Mike Duke
4	McDonald's	1.7 million	Oak Brook, Illinois	James A. Skinner
5	Chinese National Petroleum Corporation	1.7 million	Beijing	Jiang Jiemin
6	State Grid Corporation of China	1.6 million	Beijing	Liu Zhenya
7	National Health Service (England)	1.4 million	London	Dave Nicholson
8	Indian Railways	1.4 million	New Delhi	Dinesh Trivedi
9	China Post Group	900,000	Beijing	Liu Andong
10	Hon Hai Precision Industry	800,000	Taipei	Tai-Ming Gou

Source: www.businessinsider.com

2.6 Recovery Plans and the Turnaround Management Strategies in the Water Sector in South Africa

According to the Department of Water Instititutional Re-alignment Project Document (2008:29), some of the water boards in South Africa have also been involved in the turnaround plans at some stages of their life cycles. Some of the recent ones have been Botshelo Water and Bushbuckridge Water. The Minister of Water Affairs has released directives towards handing over Botshelo Water to be incorporated under Sedibeng Water's

portfolio and Bushbuckridge Water to be incorporated into Rand Water's operations. Namakwa Water has already been incorporated into Sedibeng Water in the past. Pelladrift Water in the Northern Cape is also in the process of being incorporated into Sedibeng Water. Sedibeng Water has issued Request for Proposal for Due Diligence on Pelladrift Water.

In certain cases, there have been water boards that were in intensive care for extended period of time. Some interventions were initiated by the Minister of Water Affairs to obtain assistance for ailing water boards from other water boards. Rand Water is one of the water boards in South Africa, and it is serving Gauteng which is the economic hub of South Africa. Rand Water is the largest water board in terms of Megalitres per Day [ML/D] of potable water that is distributed to the customers that are in excess of approximately 12 millions.

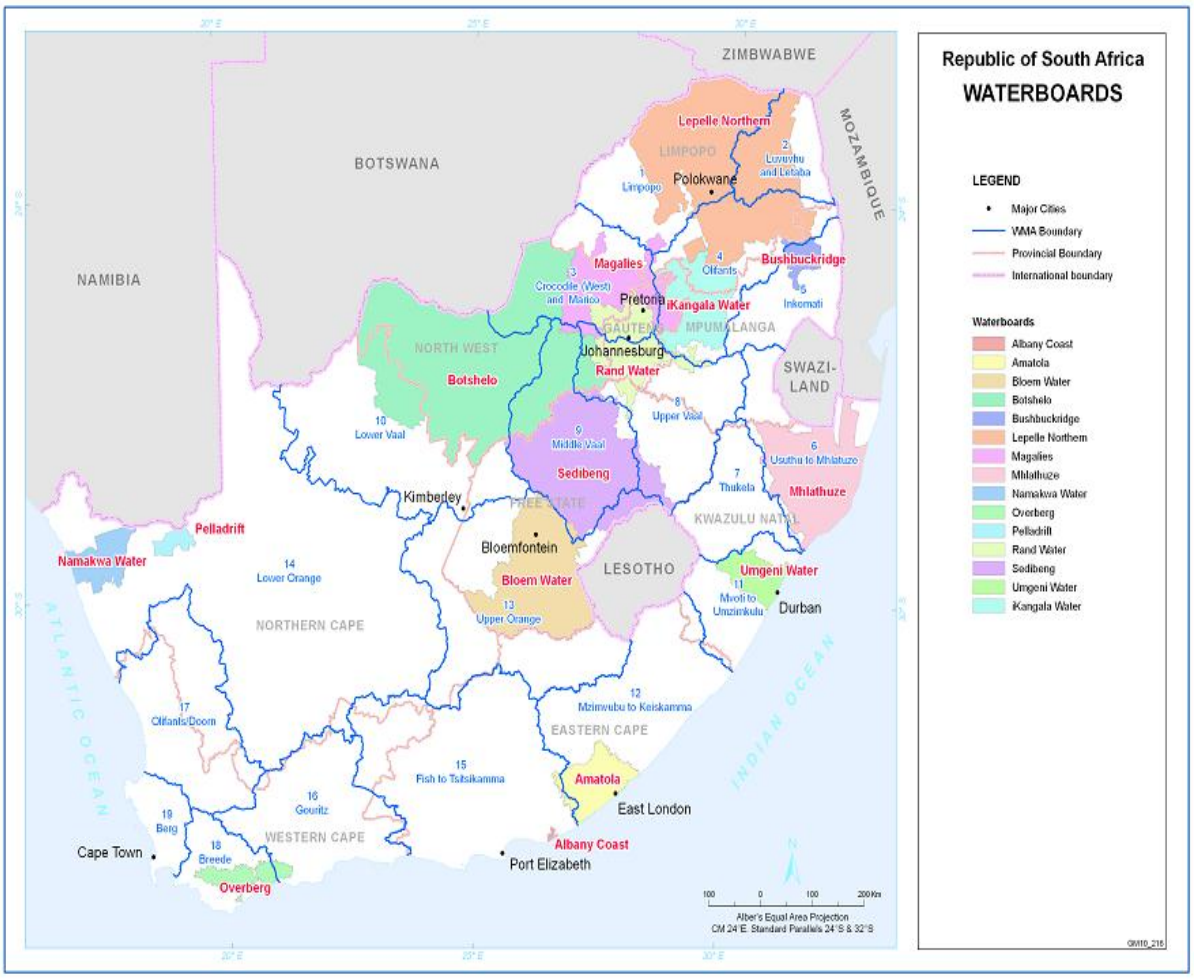


Figure 5: Water Boards and Water Management Map of South Africa

(Source:www.dwa.gov.za Dept of Water Affairs accessed on 12 Sep 2012)

2.7 Determinants of Turnaround Management Strategies

According to Merriam-Webster Online Dictionary (accessed 12 September 2013), defines determinant as an influencing or determining element or factor. Various researchers have been conducting research in the field of turnaround management strategies with their focus on different outputs. Some of the research carried out in the past showed what factors or influencing factors are applicable to the turnaround strategies or recovery plans.

Some of determinants of the turnaround strategies as per Makgeta (2010:42), are:

- Cost Reductions
- Efficiency Initiatives
- Changes in Management
- Performance Measures
- Financial Structure
- Firm Size

2.8 Conclusion

It can be concluded from literature review that the turnaround plans comes in different forms and shapes, and they cut across all spheres of working life i.e. public and private sectors. The turnaround management strategies and recovery plans require certain set of skills which are not from the normal day to day management perspective. Various models and theories have been established over a number of years. The area of research in the turnaround management is still evolving, and there is still a lot that can be done to bring it to prominence.

Case studies from various sectors are showing certain trends that cut across industries. Lessons learnt from the public sectors can be shared in the private sector and vice versa. Skills sets required to successfully undertake turnarounds vary, and some companies and

institutions prefer outsiders as opposed to the insiders to carry out the turnaround plans. Probably, because of the objective way was that the outsiders can engage problems and also lateral thinking that is required to conduct these mammoth tasks that are done by the turnaround specialists. It can also be concluded that sometimes it is difficult to categorise institutions in certain categories as they cut across sectors.

CHAPTER 3: RESEARCH METHOD

3.1 Introduction

3.2 Research Design

3.2.1 Quantitative Research

3.2.2 Case Studies

3.2.3 Questionnaire

3.3 Research Methodology

3.3.1 Research Instruments

3.3.2 Data

3.3.3 Analysis

3.4 Limitations

3.5 Ethical Considerations

3.6 Conclusion

CHAPTER 3:

RESEARCH METHOD

"Turnaround specialists" mandate is to lead a significant change effort within a limited period of time in order to turn things around as quickly as possible, all the while focusing not only upon immediate challenges, but also on a long-term planning and the bigger picture"

Takacs, Turnarounds, (2001)

3.1 Introduction

The purpose of the study was to assess the turnaround management strategies in a water board. This involved looking at determinants of the turnaround strategies, investigating the turnaround case studies from different sectors, checking lessons learned from the previous turnarounds to ascertain if there is an identifiable common thread. The study has a particular focus in the water sector project environment area.

The research method undertaken was meant to provide some pointers and answers pertaining to differentiation between the corporate strategy during the normal period and the strategy turnaround efforts when the business is in a decline mode. The results expected from the study includes, correlations between variables, factors that forms part of the turnaround management strategies, highlights pertaining to the process of the turnaround plans, and any other statistical methods that can add value to the study.

The research method will endeavour to develop a research instrument in the form of a questionnaire which was applied to a sample of an identified population. The responses to the questionnaires were analysed. Quantitative approach as opposed to the qualitative method was used to do the research study.

3.2 Research Design

3.2.1 Quantitative Research

The quantitative research design was employed for the purpose of the study, and it involved a combination of correlation-based research, survey-based research, and case studies. This was done to uncover principles that were extrapolated, and also looked at correlations between the related variables. The research design also sought to uncover people's opinions as pertaining to the turnaround management strategies that are applied in different industries on frequent basis. The three techniques of correlation, survey, and studies were able to address the thesis statement made in Introduction and Nature of the Study Chapters.

Correlation-based research was able to provide correlation between variables, especially determinants of the turnaround management strategies. Some shortfalls of correlation-based research in this case were influenced by outside variables of the study. Some relationships between variables were difficult to explain or to relate to.

The survey-based research uncovered opinions of selected employees in the water board as pertaining to the turnaround management strategies and recovery plans. Some challenges posed by this method were formulation of questions and themes that captured the required data. The size of a sample was also a challenge due to a focus on only a number of selected employees in a particular department that deals mostly with capital projects.

3.2.2 Case Studies

Case studies were also considered due to the real life experience that they brought to the research. The challenge pertaining to case studies might be on how and why those particular case studies were selected as opposed to the others in the field of the turnaround management strategies. Case studies were to give a focus to detailed knowledge in certain areas. Some aspects of the existing knowledge previously utilised to a limited extent, and also only in the context of this study.

These research designs were selected due to the impact that is expected from them in order to address the thesis statement, primary objectives, and secondary objectives. A

combination of different techniques also assisted with information extraction which is difficult to address when one or only two of the methods have been used.

3.2.3 Questionnaire

The questionnaires were developed based on the thesis statement of the research study. Closed questions were used for obtaining data from participants drawn from the population. Sensitive information was only addressed through demographic profile which focused on gender, age, tenure, educational level, and years of experience. The questionnaires were distributed by a means of physical distribution by dropping questionnaires, and collecting them from various work stations in the workplace. The other methods that could have been employed include, distribution of questionnaire by a means of emails, but the short-comings side of this was that some respondents had to be followed more often.

3.3 Research Methodology

A combination three research designs were taken into consideration to undertake this research project. The motivating factor for approaching research designs in this manner was to be able to obtain data and subsequently more information when analysis has to take place.

3.3.1 Research Instruments

The research instrument selected for the assessment was the questionnaires. The questionnaires developed were based on the problem statement, primary objectives as well as the secondary objectives of the study. The instrument deployed was expected to deliver data from selected random sample, which will yield results that can explain certain phenomena, show correlation between certain variables in the study, give other statistical information that can be linked to the literature review on the turnaround management strategies. The data was analysed by means of an SPSS Version 21 software and expertise from the Statistical Consultation Services of the North-West University in Potchefstroom.

The data that was analysed was also checked for reliability and validity by means of applying certain statistical tests. Analysis of variance was utilized to measure the strength of the relationship between two numerical random variables. Data analysis can also yield a variety of results that can be utilized for comparing other variables, and where applicable model building. The content of the research instrument used was of a non-standard type. This was selected based on the outcomes of the literature review undertaken, and looking at what was achieved by other models developed previously. The context was changed to suit its application, but the common theme was still the turnaround management strategies in a water board.

3.3.2 Data

In the sample selected for obtaining data and analysing; the sample and population were from similar groups, but the approach of the study was to aspire for the sample to represent the population. The water board or water boards can be considered as a population and the sample was represented by a Division within a water board characterized by certain attributes.

The total population for the water board selected is approximately 4227. This number varies slightly due to the number of the approved vacancies but not filled. The recruitment process is ongoing and also the staff turnover being almost on continuous basis, but at most around 5 % on average. The sample of respondents that participated was 82 out of a total of 313 employees in the Capital Projects Department. This represents 30 % of the sub-population that has been considered for the study.

The strengths of collecting data by means of a questionnaire in comparison with other methods, such as the interviews lie in the time saving aspects and also on the cost factor. Further consideration for selecting this approach included; ease of data analysis, applicability, and reliability of data, and it did not pose challenges for the ethical guidelines. Reliability data checks were done by using Cronbach's alpha coefficients. The sample that was under consideration was a good representative of the targeted research area. The sample selected for the study was derived from a certain area of focus being inside the Strategic Asset Management Division in Rand Water. The participants were selected randomly. If the whole of the water board was taken as a population, the sample was going to be too big for the factors that were informing the study, and it was going to cut across all the business units.

3.3.3 Analysis

The five (5) point Likert scale was utilized in the research instrument. Extraction and further analyses of factors that will shed some more light on the turnaround management strategies were scrutinized in details based on the questions posed in the questionnaire.

3.4 Limitations

The limitations that were encountered in this chapter were access to a bigger sample, conducting the study on all water boards, time factor, cost factor and distances to travel inside the country to request permissions at other water boards to conduct the research study.

Some limitations also included utilizing qualitative method to corroborate information obtained through the quantitative method design. This was going to involve conducting quantitative method first as a primary method, and then following up the results obtained by doing interviews as part of a qualitative method.

3.5 Ethical Considerations

The ethical considerations that were undertaken and correlating to the University's Ethical Guidelines were; requesting for a permission to distribute questionnaires through gate keepers being the Departmental Managers or Senior Managers in Capital Projects, Assets Project Controls and Strategic Projects as well as the Programme Managers for the various systems including the Construction Services Manager. The other consideration pertaining to the ethical guidelines included in making sure that identities of the respondents were not revealed to the public only for certain demographic information used for the study.

3.6 Conclusion

It can be concluded that the research design undertaken yielded meaningful results. The data sample representing the population was well conceived and applied to meet the objectives of the study. The techniques deployed assisted in being able to build a better understanding in the turnaround management strategies field of research. The study showed

that the link was established between the literature review of the turnaround management strategies and the problem statement, primary objectives as well as the secondary objectives.

CHAPTER 4:

REPORTING AND DISCUSSION OF RESULTS

4.1 INTRODUCTION

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CHAPTER 4:

REPORTING AND DISCUSSION OF RESULTS

"A turnaround occurs when a business persevere through an existence-threatening performance decline and end the threat with a combination of strategies involving skills, systems and capabilities to achieve sustainable performance recovery"

Sheppard & Chowdhury (2005)

4.1 INTRODUCTION

This chapter is aimed at presenting, reporting, analysing and discussing results that have been gathered through the research instrument, by a means of a questionnaire. The chapter bridges a gap between the research method which included the development of the questionnaire and conducting field study, as well as conclusions. This chapter follows from finalization of the questionnaire, and the deployment of the questionnaire in the field. Questionnaires were distributed at a single water board. The water board that was selected was Rand Water and the location chosen as a field was Rand Water Head Office at Rietvlei in Glenvista in the South of Johannesburg. The distribution of the questionnaires was done by the researcher by contacting participants, and leaving questionnaires for completion. The researcher also followed up physically by going to work stations of employees in the Strategic Asset Management Division and collecting completed questionnaires. It took approximately two weeks to distribute and collect questionnaires. In certain cases telephone calls were made to remind participants of the questionnaires left with them. This resulted in a high response rate as opposed to the other methods of distributing questionnaires such as by emailing respondents or participants.

The completed and collected questionnaires were then handed over to the Statistical Consultation Services for statistical analyses utilizing SPSS version 21 software for analysis. The researcher discussed the data with the Statistical Consultant as to the sort of analyses that were being sought. The following were analyses that were undertaken from the questionnaires after the data from questionnaires were captured on the the software:

- Descriptives
- Frequencies
- One-way ANOVA (Analysis of Variance)
- Reliability and Validity
- T-Tests
- Correlations

Factor analysis was requested, but could not have yielded good results as the sample collected was only among the 82 questionnaires. The minimum required questionnaires in order to be able to conduct a proper factor analysis, which requires more than 200 questionnaires.

Further analyses, reporting and interpretation of statistical results was done by the researcher to uncover, and relate the results obtained to the problem statement posed. The findings and analysis are presented below:

4.2 RESEARCH FINDINGS

Statistical Consultant from the Statistical Consultation Services of the North-West University at the Potchefstroom Campus performed statistical analyses. The software utilized for statistical analyses was SPSS Version 21. The statistical analyses results were further interpreted by the researcher. They were linked to the questionnaires submitted and the rest of the mini-dissertation chapters that posed the thesis statement or the problem statement.

Questionnaire administered was divided as follows:

Section A: Introduction;

This section introduced the researcher, field of research, contact details, institution, purpose of research, research supervisor, and the estimated time to complete the research questionnaire.

Section B: Demographic Information;

Section B dealt with the demographic information limited to the age categories, occupation type, occupation level, education level, gender and codes used.

Section C: Questions;

This section introduced a scale used to capture the data, through the five-point Likert Scale. It further posed a number of statements that participants needed to respond to. The statements were from No. 1 to No. 15. Statement No. 15 was further broken into 15.1, 15.2, 15.3, 15.4, 15.5, and 15.6. The last part of the questionnaire had No. 16 which was left for filling additional comments if there were any by the respondents.

4.2.1 RELIABILITY AND VALIDITY

According to Pallant (2007:6), reliability of a scale indicates how free it is from a random error. In most cases reliability is tested together with validity. Pallant (2007:7), also stated that validity refers to the degree to which it measures what it is supposed to be measured.

Pallant (2007:6), further mentioned that the indicators of scale reliability are as follows:

1. Test-retest Reliability or Temporal Stability
2. Internal Consistency

Test-retest reliability is assessed by administering it to the same people on two different occasions, and then calculating correlation between the two scores.

In most cases, an indicator of reliability that is used is Cronbach's Coefficient Alpha which has values that range between 0 and 1. It is widely assumed that in the research community that Cronbach's coefficient alpha of equal or greater than 0.6 is an acceptable indicator of reliable scale or reliability in the study undertaken.Internal consistency which is a degree to which the items that make up the scale are all measuring the same underlying attribute.

With regard to reliability the following findings were obtained:

Reliability for all questionnaire items: Statements 1 to 15

Cronbach's Coefficient Alpha = 0.632

Reliability for all questionnaire items excluding item 15 in the questionnaire: Only Statement 1 to 14 excluding Statement 15

Cronbach's Coefficient Alpha = 0.670

4.2.2 ONE-WAY ANOVA

According to Field (2005:309), ANOVA is used to analyse situations in which there are several independent variables. In this case, it informs us on how independent variables interact with each other, and what effects these interactions have on the dependent variable.

One-way ANOVA was used to determine factor scores for two cases of Statements C1 to C15.6 and also for C1 to C14 from the questionnaire and compare it against B3 (Occupation Levels) in the questionnaire. The effect sizes were then determined.

TABLE 6: One-way ANOVA Factor Scores and Effect Sizes based on Occupation Level

TABLE : One-Way ANOVA Factor Scores and Effect Sizes based on Occupation Level

						95 % Confidence Interval							
		N	Mean	Std Deviation	Std Error	Lower Bound	Upper Bound	Minimum	Maximum	Effect Sizes	2 &	3 &	5 &
	1.00	10	2.7143	0.50843	0.16078	2.3506	3.078	1.86	3.43				
	2.00	41	2.7499	0.38697	0.60430	2.6277	2.872	2.00	3.64	0.07			
	3.00	9	2.6557	0.56799	0.18933	2.2191	3.0923	1.57	3.57	0.1	0.17		
	5.00	15	2.6413	0.42946	0.11089	2.4034	2.8791	1.64	3.29	0.14	0.25	0.03	
Factor	6.00	7	2.5581	0.66639	0.25187	1.9418	3.1744	1.69	3.50	0.23	0.29	0.15	0.12
Score	Total	82	2.6990	0.45076	0.04978	2.5999	2.798	1.57	3.64				
	1.00	10	2.5442	0.42600	0.13471	2.2395	2.849	1.84	3.20				
	2.00	41	2.5470	0.32786	0.05120	2.4435	2.6505	1.79	3.35	0.01			
	3.00	9	2.4857	0.46123	0.15374	2.1311	2.8402	1.65	3.25	0.13	0.13		
	5.00	15	2.5160	0.39395	0.10172	2.2978	2.7342	1.67	3.00	0.07	0.08	0.07	
Factor	6.00	7	2.3370	0.49910	0.18864	1.8754	2.7986	1.68	2.75	0.42	0.42	0.3	0.36
Score 2	Total	82	2.5163	0.37814	0.04176	2.4332	2.5994	1.65	3.35				

Factor Scores:

Effect Sizes for Supervisory level of 0.07, 0.10, 0.14, and 0.23 were obtained in comparison to the factor scores of Middle Management, Senior Management, Specialist and other occupation level respectively. In this case, the effect size is small and it denotes no practical significant differences between those factor scores and effect sizes above.

In the case of Senior Management factor score, Specialist factor score and other factor score, the following effect sizes were obtained for comparing with Middle Management respectively, 0.17, 0.25 and 0.29. In all these three cases, effect size is around 0.2 which denotes a small effect and therefore, no practical significant difference between combined Senior Management, Specialist, other levels as compared to the Middle Management taking into consideration the factor scores for all Section C (C1 to C15.6) Statements in the questionnaire.

Comparison between Specialist Level factor score and Senior Management effect size yielded 0.03, and between other Occupation Level factor score and the Senior Management effect size which yielded 0.15. In both cases, effect size is smaller than 0.2, denoting a small effect. This means that there is no practical significant difference between Specialist Level and Senior Management Level, and it also applies between other Occupation level and Senior Management level.

The other scenario that was looked was comparison of other level factor scores against the specialist effect size. This yielded effect size of 0.12 and therefore denotes a small effect, which is of no practical significant difference between other occupational level and specialist level.

Factor Scores 2:

For effect sizes of 0.01, 0.13, 0.07 and 0.42 of Middle Management, Senior Management, Specialist and other occupation levels as compared to Supervisory level effect size. The results are showing a small effect that is of no practical significant difference.

The effect sizes of 0.13, 0.08 and 0.42 were obtained for the Middle Management effect size as compared to the Senior Management factor score, Specialist factor score, and other occupation level factor score respectively. These are still in the range of around 0.2, and below 0.5, which means a small effect and no practical significant difference was detected.

For a specialist factor score and other occupation level factor score as compared to the Senior Management effect size, 0.07 and 0.30 are obtained respectively. These are also in the category of 0.2 denoting a small effect which has no practical significant difference between them. These are also in line with what was obtained for all statements made in the questionnaire.

Factor scores of 2 are for Statements from C1 to C14 in Section C of the research instrument excluding Statement 15 which comprises of Statements C15.1 to C15.6. Thecomparisons of other level factor scores against specialist level effect size yields 0.36. This is also below 0.5, which means small effect which has no practical significant differences between other and Specialist. This is higher, but still comparable to the results obtained for all the statements in the questionnaire.

TABLE 7: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	0.314	4	0.079	0.375	0.826
	Within Groups	16.144	77	0.21		
Fact_score	Total	16.458	81			
	Between Groups	0.280	4	0.07	0.477	0.753
	Within Groups	11.302	77	0.147		
Fact_score2	Total	11.582	81			

Post Hoc Tests were done as part of an exploratory data analysis, but they did not yield significant results to be discussed here.

4.2.3 T-TESTS

The T-tests were conducted based on Gender, and compared to the different statements that are in the questionnaire Section C.

TABLE 8: T-test Gender

B5 (Gender)		N	Mean	Std. Deviation	Std. Error Mean	Effect Size
C1	1.00	53	3.1132	1.17113	0.16087	
	2.00	28	2.7143	1.08379	0.20482	0.34
C1	1.00	52	2.2115	0.72319	0.10029	
	2.00	27	2.1481	0.60152	0.11576	0.09
C3	1.00	54	1.5556	0.57188	0.07782	
	2.00	28	2.0000	0.72008	0.13608	0.62
C4	1.00	53	2.0755	0.82855	0.11381	
	2.00	28	2.2857	1.15011	0.21735	0.18
C5	1.00	52	2.2692	0.76991	0.10677	
	2.00	28	2.8929	0.95604	0.18068	0.65
C6	1.00	54	2.6481	1.06678	0.14517	
	2.00	28	3.3571	1.12922	0.21340	0.63
C7	1.00	54	3.2407	1.13162	0.15399	
	2.00	28	2.7500	1.10972	0.20972	0.43
C8	1.00	54	2.9815	1.01852	0.13860	
	2.00	28	2.7857	0.78680	0.14869	0.19
C9	1.00	54	3.6111	1.08882	0.14817	
	2.00	28	2.7857	0.83254	0.15734	0.76
C10	1.00	54	2.2222	1.02178	0.13905	
	2.00	28	2.5714	0.92009	0.17388	0.34
C11	1.00	53	2.2830	0.88529	0.12160	
	2.00	28	2.7500	1.04083	0.19670	0.45
C12	1.00	54	3.2037	1.15546	0.15724	
	2.00	28	2.7500	1.35058	0.25524	0.34
C13	1.00	54	3.4815	1.19339	0.16240	
	2.00	28	3.4643	1.20130	0.22702	0.01
C14	1.00	54	2.6481	1.15182	0.15674	
	2.00	28	2.8929	1.22744	0.23196	0.20
C15.1	1.00	46	2.3043	1.15219	0.16988	
	2.00	25	2.4400	1.00333	0.20067	0.12
C15.2	1.00	53	1.6981	0.60717	0.08340	
	2.00	26	1.9231	0.84489	0.16570	0.27
C15.3	1.00	53	2.1321	0.80950	0.11119	
	2.00	27	1.9259	0.67516	0.12993	0.25

C15.4	1.00	53	1.6415	0.59142	0.08124	
	2.00	28	1.8929	0.68526	0.12950	0.37
C15.5	1.00	52	1.9615	0.65564	0.09092	
	2.00	28	2.3214	0.98333	0.18583	0.37
C15.6	1.00	53	2.6226	0.98501	0.13530	
	2.00	28	2.3929	1.10014	0.20791	0.21

The following statements C1, C2, C4, C7, C8, C10, C12, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5 and C15.6 are all falling in the range of effect size is equal to 0.2. They all have a small effect compared to Gender. This therefore, has no practical significant difference.

TABLE 9: Gender against Statement Effect Sizes (Small Effect)

Statement Code	Statement	Effect Size
C1	The strategy of your company embraces uncertainty	0.34
C2	Turnaround companies differ in their structural characteristics from non-turnaround companies	0.09
C4	Characteristics of successful turnaround managers are known	0.18
C7	Reduction or suspension of capital expenditure is a sign turnaround strategy	0.43
C8	Turnaround management strategies are common in water boards	0.19
C10	Skills sets required for turnaround plans are different from normal management	0.34
C12	Factors contributing to distressed projects are well communicated to stakeholders	0.34
C13	There are well documented turnaround lessons learnt in the company	0.01
C14	Causes of demise of other water boards are well understood in the industry (e.g. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc)	0.20

C15.1	Determinants of turnaround management strategies are cost reductions	0.12
C15.2	Determinants of turnaround management strategies are efficiency initiatives	0.27
C15.3	Determinants of turnaround management strategies are changes in management	0.25
C15.4	Determinant of turnaround management strategies is performance measures	0.37
C15.5	Determinant of turnaround management strategies is financial structure	0.37
C15.6	Determinant of turnaround management strategies is company or organisation size	0.21

The following statements C3, C5, C6 and C11 are in the effect size range of around 0.5. They have medium effect that has a practical visible difference.

TABLE 10: Gender against Statements (Medium Effect)

Statement Code	Statement	Effect Size
C3	The causes of declines in companies can be identified	0.62
C5	There is a general sequence of successful recovery actions	0.65
C6	A water sector institutional re-alignment project is well known	0.63
C11	Determinants of successful turnarounds are well known	0.45

Statement C9 has an an effect size of 0.76 which is close to 0.8, and therefore has a large effect. Statement C9 has a practically significant difference on the gender variable.

TABLE 11: Gender against Statements (Large Effect)

Statement Code	Statement	Effect Size
C9	Consolidation and dis-establishment of water boards was necessitated by business decline	0.76

4.2.4 FREQUENCIES

The frequency tables that were obtained through SPSS were converted to graphs that are shown in ANNEXURE B and stated below:

TABLE 23: Frequency Table Age Category (B1)

TABLE 24: Frequency Table Occupational Levels (B3)

TABLE 25: Frequency Table Education Level (B4)

TABLE 26: Frequency Table Gender (B5)

TABLE 27: Frequency Table Statement C1

TABLE 28: Frequency Table Statement C2

TABLE 29: Frequency Table Statement C3

TABLE 30: Frequency Table Statement C4

TABLE 31: Frequency Table Statement C5

TABLE 32: Frequency Table Statement C6

TABLE 33: Frequency Table Statement C7

TABLE 34: Frequency Table Statement C8

TABLE 35: Frequency Table Statement C9

TABLE 36: Frequency Table Statement C10

TABLE 37: Frequency Table Statement C11

TABLE 38: Frequency Table Statement C12

TABLE 39: Frequency Table Statement C13

TABLE 40: Frequency Table Statement C14

TABLE 41: Frequency Table Statement C15.1

TABLE 42: Frequency Table Statement C15.2

TABLE 43: Frequency Table Statement C15.3

TABLE 44: Frequency Table Statement C15.4

TABLE 45: Frequency Table Statement C15.5

TABLE 46: Frequency Table Statement C15.6

4.2.5 DESCRIPTIVES

Descriptives analyses were done for all the variables in Section C of the Questionnaires and the following results were found as per Table 12 below:

TABLE 12: Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std Deviation
C1	81	1.00	5.00	2.9753	1.15082
C2	79	1.00	4.00	2.1899	0.68080
C3	82	1.00	4.00	1.7073	0.65711
C4	81	1.00	5.00	2.1481	0.95015
C5	80	1.00	4.00	2.4875	0.88581
C6	82	1.00	5.00	2.8902	1.13318
C7	82	1.00	5.00	3.0732	1.14159

C8	82	1.00	5.00	2.9146	0.94544
C9	82	1.00	5.00	3.3293	1.07789
C10	82	1.00	5.00	2.3415	0.99653
C11	81	1.00	4.00	2.4444	0.96177
C12	82	1.00	5.00	3.0488	1.23631
C13	82	1.00	5.00	3.4756	1.18869
C14	82	1.00	5.00	2.7317	1.17640
C15.1	71	1.00	5.00	2.3521	1.09673
C15.2	79	1.00	4.00	1.7722	0.69705
C15.3	80	1.00	4.00	2.0625	0.76875
C15.4	81	1.00	4.00	1.7284	0.63270
C15.5	80	1.00	5.00	2.0875	0.79863
C15.6	81	1.00	5.00	2.5432	1.02530
Valid N (listwise)	64				

According to www.purplemath.com (2013), mean refers to the average where all the numbers were added, and divided by the sum of numbers or divided by the number of numbers.

In Table 12 above representing Descriptive Statistics mean varied between 1.7073 (minimum mean), and 3.4756 (maximum mean) taking into consideration all variables represented in Section C of the Questionnaire from C1 to C15.6. It means that the average of all variables taken do not differ significantly.

According to www.cqu.edu.au (2013), standard deviation means a measure of how precise the average is; that is how well the individual numbers agree with each other. It is also a measure of a type of error named random error. Random error represents the kind of error that people cannot control very well.

In this case, standard deviation differs in the range of 0.69705 to 1.23631. The variables considered seem to have some agreement between them individual even though it ranges. Variables C2 to C5, C8, C10, C11, C15.2, to C15.5 seem to be in agreement with one another whilst C6, C7, C9, C12 to C15.1 and C15.6 are also in agreement with one another.

4.2.6 NON PARAMETRIC CORRELATION

According to many textbooks and information on Statistics such as http://abyss.uoregon.edu/~js/glossary/correlation.html (2013), correlations are concerned with the strength and the direction of the relationship between variables or measure of a linear association between two variables. The relationship can be positive or negative.

According to the results obtained, correlation coefficients were found to be as follows using Kendall's tau_beta:

TABLE 13: Correlation Coefficient_ Vertical vs Horizontal Comparison

Symbols used: +ve (positive relationship) and –ve (negative relationship)

		B1	B3	B4	B5	C1	C2	C3	C4	C5	C6	C7	C8
B1		1.000	-0.112	-0.051	-0.302	0.016	0.032	-0.125	-0.063	-0.253	-0.142	0.091	-0.035
		+ve	-ve	-ve	-ve	+ve	+ve	-ve	-ve	-ve	-ve	+ve	-ve
B3		-0.112	1.000	0.030	0.022	-0.167	0.012	0.087	-0.058	0.049	-0.074	-0.133	-0.063
		-ve	+ve	+ve	+ve	-ve	+ve	+ve	-ve	+ve	-ve	-ve	-ve
B4		-0.051	0.030	1.000	0.028	0.061	-0.184	0	-0.013	-0.045	0.014	-0.050	0.057
		-ve	+ve	+ve	+ve	+ve	-ve	zero	-ve	-ve	+ve	-ve	+ve
B5		-0.032	0.022	0.028	1.000	-0.144	-0.044	0.296	0.051	0.310	-0.263	-0.181	-0.085

		-ve	+ve	+ve	+ve	-ve	-ve	+ve	+ve	+ve	-ve	-ve	-ve
C1		0.016	-0.167	0.061	-0.144	1.000	0.049	0.038	-0.021	-0.049	-0.112	0.072	0.156
		+ve	-ve	-ve	-ve	+ve	+ve	+ve	-ve	-ve	-ve	+ve	+ve
C2		0.032	0.012	-0.184	-0.044	0.049	1.000	0.127	0.090	0.088	0.122	-0.134	-0.035
		+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	-ve
C3		-0.125	0.087	0	0.296	0.038	0.127	1.000	0.450	0.420	0.125	0.013	-0.005
		-ve	+ve	Zero	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve
C4		-0.063	-0.058	-0.013	0.051	-0.021	0.090	0.450	1.000	0.365	0.027	0.275	0.199
		-ve	-ve	-ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C5		-.0253	0.049	-0.045	0.310	-0.049	0.088	0.420	0.365	1.000	0.025	0.037	-0.051
		-ve	+ve	-ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve
C6		-0.142	-0.074	0.014	0.263	-0.112	0.122	0.125	0.027	0.025	1.000	0.057	0.129
		-ve	-ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C7		0.091	-0.133	-0.050	-0.181	0.072	-0.134	0.013	0.275	0.037	0.057	1.000	0.226
		+ve	-ve	-ve	-ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve
C8		-0.035	-0.063	0.057	-0.085	0.156	-0.035	-0.005	0.199	-0.051	0.129	0.226	1.000
		-ve	-ve	+ve	-ve	+ve	-ve	-ve	+ve	-ve	+ve	+ve	+ve
C9		0.181	0.035	0.044	-0.342	0.062	-0.028	-0.087	0.125	-0.039	-0.029	0.372	0.185
		+ve	+ve	+ve	-ve	+ve	-ve	-ve	+ve	-ve	-ve	+ve	+ve
C10		-0.025	0.044	-0.169	0.216	0.025	0.069	-0.012	0.170	0.014	0.204	0.155	0.079
		-ve	+ve	-ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve
C11		-0.020	-0.122	-0.027	0.209	0.069	0.165	0.192	0.281	0.222	0.215	0.281	0.180
		-ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C12		0.055	0.021	-0.061	-0.153	-0.104	0.021	0.026	0.140	-0.066	0.158	0.216	0.041
		+ve	+ve	-ve	-ve	-ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve
C13		-0.026	-0.132	0.139	-0.007	0.071	-0.138	-0.051	0.167	0.012	0.153	0.337	0.225
		-ve	-ve	+ve	-ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve
C14		-0.002	0.037	0.256	0.088	0.049	-0.051	0.247	0.195	0.037	0.126	0.100	0.175

		-ve	+ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.1		0.063	-0.079	-0.131	0.080	0.075	-0.151	0.096	0.172	0.082	0.059	0.235	0.108
		+ve	-ve	-ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.2		-0.085	0.037	0.047	0.105	-0.040	-0.026	0.168	0.075	0.137	0.037	-0.192	-0.055
		-ve	+ve	+ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	-ve	-ve
C15.3		-0.025	0.005	0.112	-0.123	0.086	-0.049	-0.024	0.021	-0.092	-0.026	0	0.153
		-ve	+ve	+ve	-ve	+ve	-ve	-ve	+ve	-ve	-ve	zero	+ve
C15.4		-0.005	-0.037	-0.041	0.171	-0.105	-0.008	0.324	0.033	0.113	0.087	0.030	-0.078
		-ve	-ve	-ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve	-ve
C15.5		-0.003	0.017	-0.140	0.173	0.124	0.052	0.246	0.176	0.184	-0.052	0.034	-0.034
		-ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	+ve	-ve
C15.6		-0.047	-0.042	-0.012	-0.108	0.053	-0.104	-0.074	0.085	0	-0.028	0.160	0.081
		-ve	-ve	-ve	-ve	+ve	-ve	-ve	+ve	zero	-ve	+ve	+ve

TABLE 14: Correlation Coefficient_ Vertical vs Horizontal Comparison

		C9	**C10**	**C11**	**C12**	**C13**	**C14**	**C15.1**	**C15.2**	**C15.3**	**C15.4**	**C15.5**	**C15.6**
B1		0.181	-0.025	-0.020	0.055	-0.026	-0.002	0.063	-0.085	-0.025	-0.005	-0.003	-0.047
		+ve	-ve	-ve	+ve	-ve	-ve	+ve	-ve	-ve	-ve	-ve	-ve
B3		0.035	0.044	-0.122	0.021	-0.132	0.037	-0.079	0.037	0.005	-0.037	0.017	-0.042
		+ve	+ve	-ve	+ve	-ve	+ve	-ve	+ve	+ve	-ve	+ve	-ve
B4		0.044	-0.169	-0.027	-0.061	0.139	0.256	-0.131	0.047	0.112	-0.041	-0.140	-0.012
		+ve	-ve	-ve	-ve	+ve	+ve	-ve	+ve	+ve	-ve	-ve	-ve
B5		-0.342	0.216	0.209	-0.153	-0.007	0.088	0.080	0.105	-0.123	0.171	0.173	-0.108

		-ve	+ve	+ve	-ve	-ve	+ve	+ve	+ve	-ve	+ve	+ve	-ve
C1		0.062	0.025	0.069	-0.104	0.071	0.049	0.075	-0.040	0.086	-0.105	0.124	0.053
		+ve	+ve	+ve	-ve	+ve	+ve	+ve	-ve	+ve	-ve	+ve	+ve
C2		-0.028	0.069	0.165	0.021	-0.138	-0.051	-0.151	-0.026	-0.049	-0.008	0.052	-0.104
		-ve	+ve	+ve	+ve	-ve	-ve	-ve	-ve	-ve	-ve	+ve	-ve
C3		-0.087	-0.012	0.192	0.026	-0.051	0.247	0.096	0.168	-0.024	0.324	0.246	-0.074
		-ve	-ve	+ve	+ve	-ve	+ve	+ve	+ve	-ve	+ve	+ve	-ve
C4		0.125	0.170	0.281	0.140	0.167	0.195	0.172	0.075	0.021	0.033	0.176	0.085
		+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C5		-0.039	0.014	0.222	-0.066	0.012	0.037	0.082	0.137	-0.092	0.113	0.184	0
		-ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	-ve	+ve	+ve	zero
C6		-0.029	0.204	0.215	0.158	0.153	0.126	0.059	0.037	-0.026	0.087	-0.052	-0.028
		-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	+ve	-ve	-ve
C7		0.372	0.155	0.281	0.216	0.337	0.100	0.235	-0.192	0	0.030	0.034	0.160
		+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	zero	+ve	+ve	+ve
C8		0.185	0.079	0.180	0.041	0.225	0.175	0.108	-0.055	0.153	-0.078	-0.034	0.081
		+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	+ve	-ve	-ve	+ve
C9		1.000	-0.015	-0.071	0.174	0.245	0.006	0.073	-0.089	-0.085	-0.011	-0.057	0.099
		+ve	-ve	+ve	+ve	+ve	+ve	+ve	-ve	-ve	-ve	-ve	+ve
C10		-0.015	1.000	0.295	0.072	0.029	0.142	0.108	0.073	0.072	0.063	0.162	0.164

		-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C11		-0.071	0.295	1.000	0.044	0.172	0.195	0.013	0.054	0.044	0.086	0.047	0.084
		-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C12		0.174	0.072	0.044	1.000	0.245	0.096	-0.012	-0.139	-0.084	0.006	-0.073	0.071
		+ve	+ve	+ve	+ve	+ve	+ve	-ve	-ve	-ve	+ve	-ve	+ve
C13		0.245	0.029	0.172	0.245	1.000	0.197	0.072	-0.185	-0.195	-0.095	-0.113	0.109
		+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	-ve	-ve	-ve	+ve
C14		0.006	0.142	0.195	0.096	0.197	1.000	0.157	0.226	-0.027	0.038	0.175	0.103
		+ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve
C15.1		0.073	0.108	0.013	-0.012	0.072	0.157	1.000	0.234	0.012	0.266	0.354	-.006
		+ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve	-ve
C15.2		-0.089	0.073	0.054	-0.139	-0.185	0.226	0.234	1.000	0.269	0.453	0.352	0.076
		-ve	+ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.3		-0.085	0.072	0.044	-0.084	-0.195	-0.027	0.012	0.269	1.000	0.267	0.148	0.318
		+ve	+ve	+ve	-ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.4		-0.011	0.063	0.086	0.006	-0.095	0.038	0.266	0.453	0.267	1.000	0.534	0.150
		-ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.5		-0.057	0.162	0.047	-0.073	-0.113	0.175	0.354	0.352	0.148	0.534	1.000	0.324
		-ve	+ve	+ve	-ve	-ve	+ve	+ve	+ve	+ve	+ve	+ve	+ve
C15.6		0.099	0.164	0.084	0.071	0.109	0.103	-0.006	0.076	0.318	0.150	0.324	1.000
		+ve	+ve	+ve	+ve	+ve	+ve	-ve	+ve	+ve	+ve	+ve	+ve

B1: AGE CATEGORY

From Table 13, B1 has a positive correlation with C1, C2, C7, C9, C12, C15.1, whilst it has a negative correlation with B3, B4, B5, C3, C4, C5, C6, C8, C10, C11, C13, C14, C15.2, C15.3, C15.4, C15.5, and C15.6.

This means that there is a positive relationship between B1 and C1, C2, C7, C9, C12, as well as C15.1, even if the strength differs in terms of the magnitude. On the other hand, B1 has a negative relationship with B3, B4, B5, C3, C4, C5, C6, C8, C10, C11, C13, C14, C15.2, C15.3, C15.4, C15.5, and C15.6 even if in the case of strengths it differ.

B3: OCCUPATION LEVEL

In Table 13, B3 (Occupational Level) variables has a positive correlation with B4, B5, C2, C3 and C5 whilst in Table 14 it has a positive correlation with C9, C10,C12, C14, C15.2, C15.3 and C15.5. In both Table 13 and Table 14 above, Occupational Level Variable has a much negative correlation with the following variables, B1, C1, C4, C6, C7, C8, C11, C13, C15.1, C15.4, and C15.6.

B4: EDUCATION LEVEL

From Tables 13 and 14, the Education Level Variable has a positive correlation with B3, B4, B5, C1, C6, C8, C9, C13, C14, C15.2, and C15.3.

From Tables 13 and 14 the Education Level Variable has a negative correlation with C15.4, C15.5, C15.6, C15.1, C10, C11, C12, C4, C5, C7, C2, and B1.

B3 or Education Level Variable has no relationship with C3, Variable concerning Statement, that the causes of declines in companies can be identified.

B5: GENDER

The scores presented on Tables 13 and 14, B5 or Gender Variable has a positive correlation with the following variables; B3, B4, B5, C3, C4, C5, C10, C11, C14, C15.1, C15.2, C15.4,

and C15.5.It has a negative correlation as per Tables 13 and 14 with the following variables B1, C1, C2, C6, C7, C8, C9, C12, C13, C15.3, and C15.6

C1: The strategy of your company embraces uncertainty

From Tables 13 and 14, C1 or Variable pertaining to the statement that the strategy of your company embraces uncertainty has a positive correlation with B1, B5, C2, C3, C6, C7, C15.5, C15.6, C15.3, C13, C15.1, C14, C9, C10, and C11.

From Tables 13 and 14, C1 or Variable pertaining to the statement that the strategy of your company embraces uncertainty has a negative correlation with B3, B5, C4, C5, C6, C15.2, C15.4, and C12.

C2: Turnaround companies differ in their structural characteristic from non-turnaround companies

According to Tables 13 and 14, C2 or Variable pertaining to the statement that the turnaround companies differ in their structural characteristic from non-turnaround companies has a positive correlation to the following variables;C15.5, C10, C11, C12, C1, C3, C4, C5, B2, and B3.

From Tables 13 and 14 above, C2 or Variable pertaining to the statement that the turnaround companies differ in their structural characteristic from the non-turnaround companies has a negative correlation to the following variables; C13, C15.4, C15.3, C15.2, C15.1, C14, C15.6, C9, B4, B5, C7, and C8.

C3: The causes of declines in companies can be identified

According to Tables 13 and 14, C3 or Variable pertaining to the causes of declines in companies can be identified has a positive correlation with the following; C11, C12, C14, C15.1, C15.2, C15.5, B3, B5, C7, C6, C5, C4, C3, C2, and C1.

According to Tables 13 and 14, C3 or Variable pertaining to the causes of declines in companies can be identified has a negative correlation with the following; C15.6, C15.3,

C13, C9, C10, B1, and C8.The causes of declines in companies can be identified has no relationship with B4, variable pertaining the statement of Education Level.

C4: Characteristics of successful turnaround managers are known

The tables above (Table 13 & Table 14), show that C4 or Variable pertaining to the characteristics of a successful turnaround managers are known and has a positive correlation with the following; B5, C2, C3, C4, C5, C6, C7, C8, C11, C12, C14, C15.1, C15.2, C15.4, and C15.5.

The tables above (Table 13 & Table 14) show that C4 or Variable pertaining to the characteristics of a successful turnaround managers are known and has a negative correlation with the following; B1, B3, B4, C1, C9, C10, C13, C15.3, and C15.6.

C5: There is a general sequence of successful recovery actions

Tables 13 and 14 illustrates that C5 or variable pertaining to the statement that there is a general sequence of successful recovery actions has a positive correlation with the following variables; B3, B5, C2, C3, C4, C5, C6, C7, C10, C13, C14, C15.1, C15.2, C15.4, and C15.5.

Tables 13 and 14 illustrates that C5 or variable pertaining to the statement that there is a general sequence of successful recovery actions and has a positive correlation with the following variables; B1, B4, C1, C8, C9, C11, C12, and C15.3.

Variable C5 (There is a general sequence of successful recovery actions), has a zero correlation with Variable C15.6 (Determinant of the turnaround management strategies is a Company or Organisation size).

C6: A water sector Institutional Re-alignment Project is well known

Tables 13 and 14 illustrates that C6 or the variable for statement that a water sector institutional re-alignment project is well known has a positive correlation with the following

variables; B4, B5, C2, C3, C4, C5, C6, C7, C8, C10, C11, C12, C13, C14, C15.1, C15.2, and C15.4.

Tables 13 and 14 illustrates that C6 or the variable for statement that a water sector institutional re-alignment project is well known has a negative correlation with the following variables; C9, C15.5, C15.6, B1, B3, and C1.

C7: Reduction or suspension of capital expenditure is a sign of a turnaround strategy

Tables 13 and 14 illustrates that C7 or the variable pertaining to the reduction or a suspension of capital expenditure is a sign of the turnaround strategy that has a positive correlation with the following variables; B1, C1, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15.1, C15.4, C15.5, and C15.6.

Tables 13 and 14 illustrates that C7 or the variable pertaining to the reduction or a suspension of capital expenditure is a sign of the turnaround strategy that has a negative correlation with the following variables; C15.2, C2, B5, B4, and B3.

C7 has a zero correlation with C15.3.

C8: Turnaround management strategies are common in water boards

Tables 13 and 14 illustrates that C8 or the variable pertaining to the turnaround management strategies are common in water boards has a positive correlation with the following variables; B4, C1, C4, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15.1C15.3, and C15.6.

Tables 13 and 14 illustrates that C8 or the variable pertaining to the turnaround management strategies are common in water boards has a negative correlation with the following variables; C5, C3, C2, B5, B3, B1, C15.1, C15.4, and C15.5.

C9: Consolidation and dis-establishment of water boards is necessitated by business decline

Tables 13 and 14 illustrates that C9 or the variable pertaining to the consolidation, and dis-establishment of water boards is necessitated by a business decline has a positive correlation with the following variables; C9, C11, C12, C13, C14, C15.1, C15.6, B1, B3, B4, C1, C4, C7, and C8.

Tables 13 and 14 illustrates that C9 or the variable pertaining to the consolidation and dis-establishment of water boards is necessitated by a business decline has a negative correlation with the following variables; C10, C15.2, C15.3, C15.4, C15.5, C3, C5, and C6.

C10: Skills sets required for the turnaround plans are different from the normal management

Tables 13 and 14 illustrates that C10 or the variables pertaining to the skills sets required for the turnaround plans are different from the normal management, and has a positive correlation with the following variables; B3, B5, C1, C2, C4, C5, C6, C7, C8, C10, C11, C12, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5, and C15.6.

Tables 13 and 14 illustrates that C10 or the variables pertaining to the skills sets required for the turnaround plans are different from the normal management, and has a negative correlation with the following variables; B1, B4, C3, and C9.

C11: Determinants of a successful turnarounds are well known

Tables 13 and 14 illustrates that C11 or the variables for determinants of a successful turnarounds are well known, and has a positive correlation with the following variables; C10, C11, C12, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5, C15.6, B5, C1, C2, C3, C4, C5, C6, C7, and C8.

A table 13 and 14 illustrates that C11 or the variables for determinants of successful turnarounds are well known, and has a negative correlation with the following variables; C9, B1, B3, and B4.

C12: Factors contributing to distressed projects are well communicated to stakeholders

Tables 13 and 14 illustrates that C12 or the variable for pertaining to factors contributing to the distressed projects are well communicated to stakeholders, and has a positive correlation with the following variables; B1, B3, C2, C3, C4, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15.4, and C15.6.

Tables 13 and 14 illustrates that C12 or the variable for pertaining to factors contributing to the distressed projects are well communicated to stakeholders, and has a negative correlation with the following variables; B4, B5, C1, C5, C15.1, C15.2, C15.3, and C15.5.

C13: There are well documented turnaround lessons learnt in the company

Tables 13 and 14 illustrates that C13 or the variables stating that there are well documented turnaround lessons learnt in the company that has a positive correlation with the following variables; B4, C1, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15.1, and C15.6

Tables 13 and 14 illustrates that C13 or the variables stating that there are well documented turnaround lessons learnt in the company that has a negative correlation with the following variables; C15.3, C15.4, C15.5, B1, B3, B5, C2, and C3.

C14: Causes of demise of other water boards are well understood in the industry (eg. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc)

A table 13 and 14 illustrates that C14 or the variables pertaining to the causes of demise of other water boards are well understood in the industry (eg. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc), has a positive correlation with the following variables:B3, B4, B5, C1, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15.2, C15.4, C15.5 and C15.6.

Information presented on Tables 13 and 14 illustrates that C14 or the variables pertaining to the causes of demise of other water boards are well understood in the industry (eg. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc), and has a negative correlation with the following variables; B1, C2, and C15.3.

C15.1: Determinants of the turnaround management strategies is: Cost reductions

Tables 13 and 14 illustrates that C15.1 or the variables for Determinant of the turnaround management strategy is cost reductions that has a positive correlation with the following variables; C9, C10, C11, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5, B1, B5, C1, C2, C3, C4, C5, C6, C7, and C8.

Tables 13 and 14 illustrates that C15.1 or the variables for Determinant of the turnaround management strategy is cost reductions and has a negative correlation with the following variables; C15.6, C12, B3, B4, and C2.

C15.2: Determinant of the turnaround management strategies is: Efficiency initiatives

Tables 13 and 14 illustrates that C15.2 or the variables for Determinant of the turnaround management strategy is efficiency initiative that has a positive correlation with the following variables; B3, B4, B5, C3, C4, C5, C6, C9, C10, C11, C14, C15.1, C15.2, C15.3, C15.4, C15.5, and C15.6.

Tables 13 and 14 illustrates that C15.2 or the variables for Determinant of the turnaround management strategy is efficiency initiative that has a negative correlation with the following variables; C1, C2, B1, C7, C8, C12, and C13.

C15.3: Determinant of turnaround management strategies is: Changes in management

Tables 13 and 14 illustrates that C15.3 or the variable for Determinant of the turnaround management strategy is change in management and has a positive correlation with the following variables; B3, B4, C1, C8, C9, C10, C11, C15.1, C15.2, C15.4, C15.5, and C15.6.

Tables 13 and 14 illustrates that C15.3 or the variable for Determinant of the turnaround management strategy is change in management that has a negative correlation with the following variables; B1, B5, C2, C3, C5, C6, C12, C13, and C14.

There is no correlation between C15.3, and C7.

C15.4: Determinant of the turnaround management strategies is: Performance measure

Tables 13 and 14 illustrates that C15.4 or the variables for Determinant of the turnaround management strategy is performance measure that has a positive correlation with the following variables; B5, C3, C4, C5, C6, C7, C10, C11, C12, C14, C15.1, C15.2, C15.3, C15.5, and C15.6.

Tables 13 and 14 illustrates that C15.4 or the variables for Determinant of the turnaround management strategy is performance measure that has a negative correlation with the following variables; B1, B3, B4, C1, C2, C8, C9, and C13.

C15.5: Determinant of turnaround management strategies is: Financial structure

Tables 13 and 14 illustrates that C15.5 or the variables for Determinant of the turnaround management strategy is a financial structure that has a positive correlation with the following variables; C2, C3, C5, C7, C9, C10, C11, C12, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5, C15.6, B3, and B5.

Tables 13 and 14 illustrates that C15.5 or the variables for Determinant of the turnaround management strategy is a financial structure that has a negative correlation with thefollowing variables; C1, C4, C6, C8, B4, and B1.

C15.6: Determinant of turnaround management strategies is: Company or Organisation size

Positive correlation as per Tables 13 and 14 for C15.6 or the variable for Determinant of the turnaround management strategy is a company size or organisation size with the following variables; C1, C4, C6, C7, C9, C10, C11, C12, C13, C14, C15.2, C15.3, C15.4, and C15.5.

Negative correlation as per Tables 13 and 14 for C15.6 or the variables for Determinant of the turnaround management strategy is a company size or organisation size with the following variables; C15.1, B1, B3, B4, B5, C2, C3, and C6.

There is no correlation between variable C5 and variable C15.6.

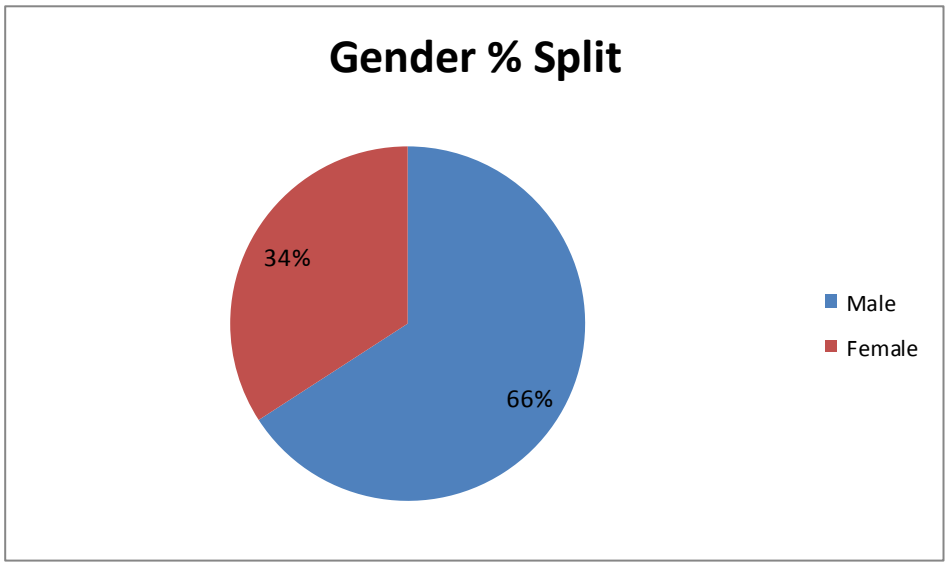
4.3 ANALYSIS

The research instruments deployed was divided into different categories which were captured on frequency tables as follows:

TABLE 15: Gender Split:

GENDER	NUMBER	PERCENTAGE
Male	**54**	**65.9 %**
Female	**28**	**34.1 %**
TOTAL	**82**	**100 %**

CHART 1: Gender % Split

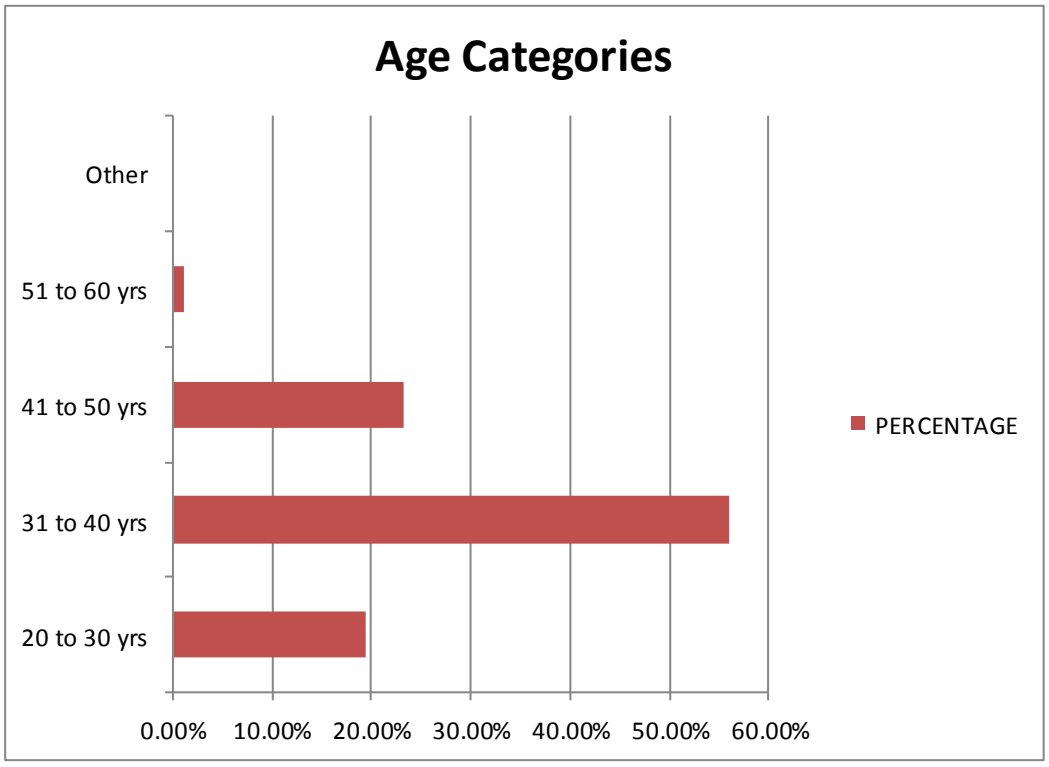


The gender split between respondents is 65.9 % for male respondents and 34.1 % for females who participated in the study undertaken. The split according to gender is reflective of the current domination of male gender at the workplace. This sampling was done randomly and it reflects the workplace in the water board, but it can also be extended to show demographic of the greater workplace in general. The study was not intended to obtain a greater sample from males than female counterparts.

TABLE 16: Age Categories

AGE CATEGORY	NUMBER	PERCENTAGE
20 to 30 yrs	16	19.5 %
31 to 40 yrs	46	56.1 %
41 to 50 yrs	19	23.2 %
51 to 60 yrs	1	1.2 %
Other	0	0%
TOTAL	82	100 %

CHART NO. 2: Age Categories

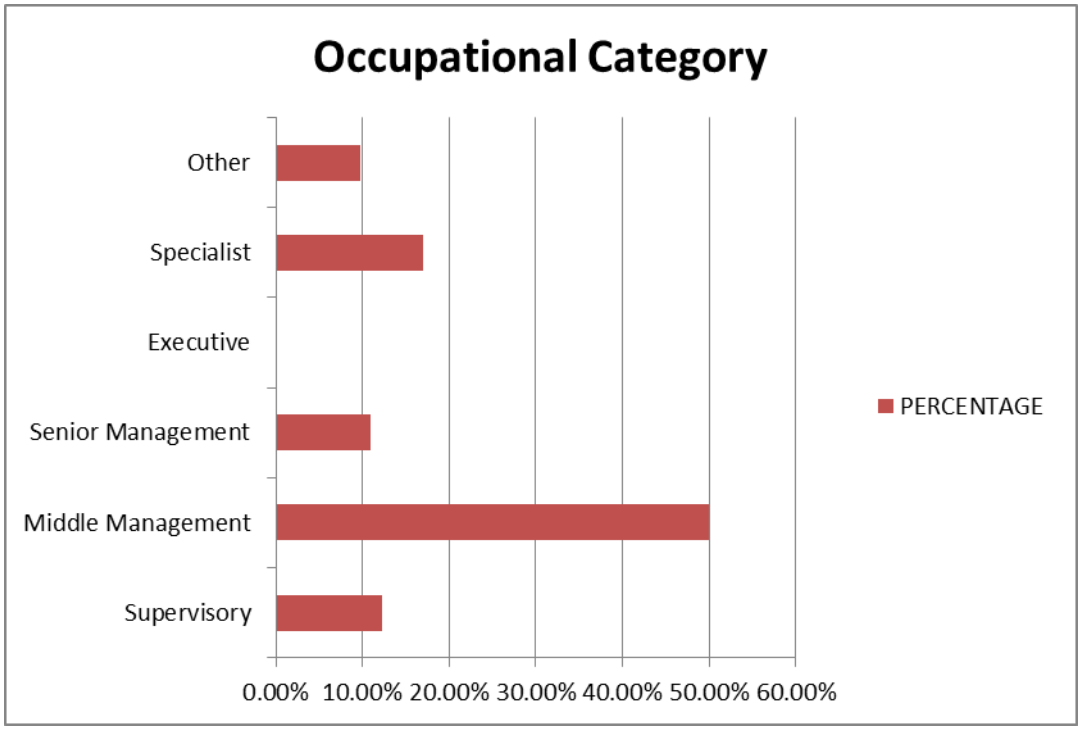


The age categories are concentrated around 31 to 40 years being the highest at 56.1 %. This age category is then followed by the 41 to 50 years category at 23. 2 %. The 20 to 30 years age category then follows at 19.5 %, and 51 to 60 years of age category is the lowest at 1.2 %. This means that from the sample taken, workforce at the water board is showing a very young workforce. This can be taken interpreted into two ways that young workforce means that employees will remain longer at the workplace. The other way is that a lot of the tacit knowledge has been lost. It also depends whether skills transfer is encouraged at the workplace.

TABLE 17: Occupation Levels

OCCUPATIONAL CATEGORY	NUMBER	PERCENTAGE
Supervisory	10	12.2 %
Middle Management	41	50 %
Senior Management	9	11 %
Executive	0	0 %
Specialist	14	17 %
Other	8	9.8 %
TOTAL	82	100 %

CHART NO. 3: Occupational Category



Occupational categories divided into six areas that range from Supervisory, Middle Management, Senior Management, Executives, Specialists and others departments. Most of the workforce that was forming part of the sample was around Middle Management at 50 % of the total sample taken. Middle Management category is flowed by the Specialist category at 17 %, and then closely followed by the Supervisory category at 12.2 % and then followed by the Senior Management category at 11 %, and then lastly other categories at 9.8 %. Other category denoted employees who were not sure as to what category they belonged and others, such as Safety, Health, Environmental, and Quality Officers. The Specialist category has mostly Engineers who are providing support to the Project Teams and Project Managers. In certain cases, it could be Asset Managers and Design Engineers who are specializing in their different engineering disciplines.

TABLE 18: Education Levels

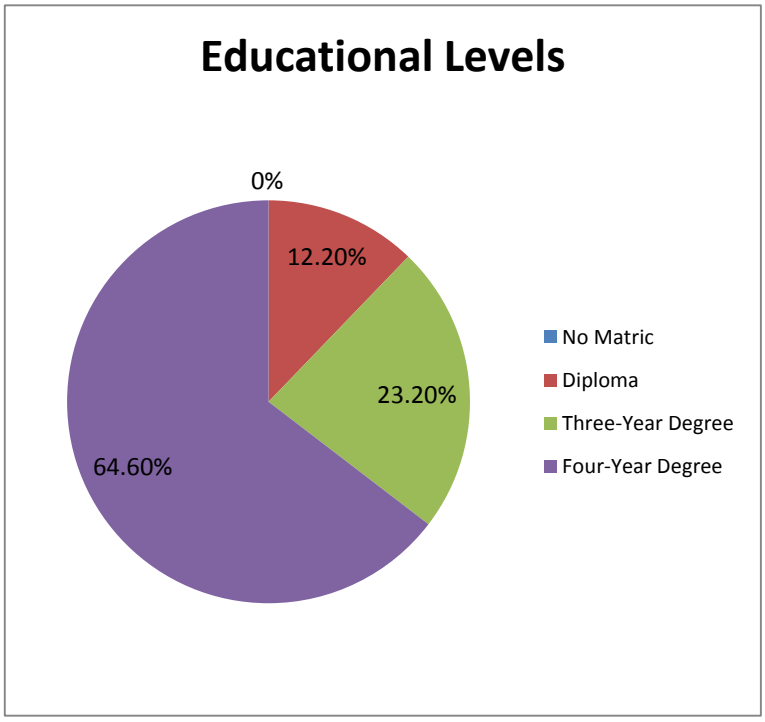
EDUCATION LEVEL	NUMBER	PERCENTAGE
No Matric	**0**	**0 %**
Matric	**82***	**100 %***
Diploma	**10**	**12.2 %**
Three-Year Degree	**19**	**23.2 %**
Four-Year Degree	**53**	**64.6%**

TABLE 19: Modified Education Levels

EDUCATION LEVEL	NUMBER	PERCENTAGE
No Matric	**0**	**0 %**
Diploma	**10**	**12.2 %**
Three-Year Degree	**19**	**23.2 %**
Four-Year Degree	**53**	**64.6%**
TOTAL	**82**	**100 %**

*: It is assumed that to proceed to Diploma and Degree Programmes each employees had to have Matric certificate before proceeding further with their studies at a tertiary level. For employees or respondents who have attained Postgraduate qualifications they were required to specify them in the space provided. The postgraduate qualifications varied for different participants.

CHART NO. 4: Educational Levels



A high concentration of qualifications was on Four-Year degrees with postgraduate qualifications in most cases encountered. This then can define the area or division where the sample was obtained from, and as a division of knowledge workers who are very mobile and also have skills that are highly sought after by the job markets in South Africa and beyond.

4.4 SUB-CONCLUSIONS

With regard to reliability, Cronbach's alphas obtained were 0.632 and 0.670. These were obtained for all statements taken into consideration, and in another case for all statements excluding statement no. 15 with its sub-sections. The third instance where Cronbach's coefficient alpha was determined was for Statement 15 consisting of its sub-statements 15.1 to 15.6. In this case, Cronbach's coefficient alpha was found to be 0.610. The higher, the Cronbach's alpha, the more reliable is the scale. Normally 0.7 is considered to be acceptable as the cut-off point for discriminating between reliable and unreliable scale. Cut-off of 0.6 is also considered to be acceptable. The latter assumption has been used in this case to predict reliability of the research scale used in the questionnaire.

In all three cases tested on the Cronbach's coefficient alphas, were found to be acceptable at 0.632, 0.670 and 0.610. It can be concluded that the questionnaire scale utilized was found to be reliable.

The factor scores as compared to effect sizes yielded small effects, which denoted no practical significant differences in all cases when looking at all Section C Statements from C1 to C15.6 in the research instrument.

The comparison effect sizes against factor scores for different occupation levels in the questionnaire taking into consideration statements that are excluding C15.1 to C15.6 in Section C also have a small effect, and no practical significant differences between them. This is correlating with results obtained for all statements.

In terms of the T-test conducted, Statement C9 "Consolidation and dis-establishment of water boards is necessitated by business decline" has a practically significant difference as compared to the Gender demographic information in the research instrument.

The other four statements in the questionnaire being C3, C5, C6 and C11 have medium effect as compared to the Gender variable. The medium effect that they have displayed has a practically visible difference. The statements that have medium effect are as follows:

C3: The causes of declines in companies can be identified.

C5: There is a general sequence of successful recovery actions.

C6: A water sector institutional re-alignment project is well known.

C11: Determinants of successful turnarounds are well known.

Correlations:

B3 or Education Level variable has no relationship with C3, variable concerning statement that the causes of declines in companies can be identified.

It can be deduced from the results that C1 or a variable pertaining to the statement that the strategy of your company embraces uncertainty has a bias towards positive correlations with most variables than a negative correlations.

The causes of declines in companies can be identified and has no relationship with B4, variable pertaining to the statement of Education Level.

There is no correlation between variable C5 (There is a general sequence of successful recovery actions) and variable C15.6 (Determinant of the turnaround management strategies is the Company or Organisation size).

Variable C15.4 pertaining to determinant of the turnaround management strategies relating to performance measures is dominated by the positive correlation with most of the variables.

There is no correlation between variable C15.3 (Determinant of the turnaround management strategies is Changes in management) and variable C7 (Reduction or suspension of capital expenditure is a sign of a turnaround strategy).

C15.1 (Determinants of the turnaround management strategies is Cost reductions), and C15.2 (Determinant of the turnaround management strategies is Efficiency Initiatives) are much more biased towards a positive correlation with the other variables.

C11 (Determinants of a successful turnarounds are well known,) highly tends towards a positive correlation with the other variables.

C7 (Reduction or suspension of capital expenditure is a sign of a turnaround strategy) has zero correlation with C15.3 (Determinant of the turnaround management strategies is Change in management).

Variable C6 (A water sector Institutional Re-alignment Project is well known), and has a tendency towards more positive correlation than a negative correlation for most of the variables.

Variable C5 (There is a general sequence of a successful recovery actions), and has more positive correlation for most of the other variables.

Variable C5 (There is a general sequence of successful recovery actions), and has a zero correlation with variable C15.6 (Determinant of the turnaround management strategies is Company or Organisation size).

CHAPTER 5:

RECOMMENDATIONS, CONCLUSION AND AREAS OF FUTURE RESEARCH

5.1 SUMMARY OF FINDINGS

5.2 CONCLUSIONS AND RECOMMENDATIONS

5.3 SUMMARY OF CONTRIBUTIONS

5.4 LIMITATIONS

5.5 AREAS FOR FUTURE RESEARCH

CHAPTER 5:

RECOMMENDATIONS AND CONCLUSION

Turnaround: "to produce a noticeable and durable improvement in performance, to turn around the trend of results from down to up, from not good enough to clearly better, from under-achieving to acceptable, from losing to winning"

Harvey (2011:443)

5.1 SUMMARY OF FINDINGS

The research study posed the following problem statements, including the intentions of the primary and secondary objectives which formed Chapter 1: Introduction and Nature of the Study were as follows:

- Identification of golden thread that is underlying successful turnarounds;
- Application of the turnaround plans for ailing or distressed capital projects in a water board;
- Assessment of effective ways or methods of implementing the turnaround management strategies, and recovery plans in the South African water sector;
- Understanding of the turnaround management strategies, and its application in the project environment of a water board;
- Extraction of phenomenons pertaining to particular themes and patterns of the turnaround management strategies;
- An overview of what institutional re-alignment project as proposed by the Department of Water Affairs entails;
- Sharing of perspectives on the demise of certain water boards, such as Botshelo Water, Bushbuckridge Water, and Namakwa Water;

- Examination of determinants of the successful turnaround management strategies; and
- Assessment of selected case studies pertaining to the turnaround plans undertaken in various institutions in South Africa and globally.

The findings and results that were obtained through the research study in order to address the problem statement, primary and secondary objectives were addressed as follows:

Cronbach Coefficient Alpha was within acceptable limits of more than 0.6. This confirmed that the scale used was reliable. One-way ANOVA showed effect sizes as compared to the factor scores obtained for various variables had split occurrences:

- Small Effect Size: Supervisory vs Middle Management, Senior Management, Specialist and other Occupation Level, Middle Management vs Senior Management, Specialist and other, Senior Management vs Specialist and other Occupation Level, other Occupation vs Specialist

It denoted that there is no practical significant difference for an effect size and factor scores.

In the case of T-tests conducted the following results were obtained:

Gender was found to have a small effect against Statements C1, C2, C4, C7, C8, C10, C12, C13, C14, C15.1, C15.2, C15.3, C15.4, C15.5, and C15.6. It means that Gender has no bearing on most of the statements posed in the research study.Gender had a medium effect on the following Statements, C3, C5, C6, and C11. Gender can make a practical visible difference to these statements. A huge effect for Gender variable was encountered on Statement C9 which is consolidation or dis-establishment of water boards was necessitated by business decline. There is a big difference between gender groups that completed the questionnaires; it might also have an effect on this statement C9.

The Statistical Descriptives showed a mean variation of between 1.7073 and 3.4756, for all variables used. The standard deviation indicated random error for a range between 0.69705 and 1.23631.

Non-parametric correlations showed that most variables were indicating positive correlation or positive relationship between variables. There were certain cases, such as Education

Level having no bearing on causes of declines in companies that can be identified. Also in the case of C5 variable, a General sequence of successful recovery actions had no relationship with the Company or Organisation Size.

It was further demonstrated that the Reduction or suspension of capital expenditure is a sign of the turnaround strategy has no relationship with Changes in Management.

5.2 CONCLUSIONS AND RECOMMENDATIONS

It can be deduced from the study that there seems to be a certain pattern that can be detected in the implementation of the turnaround plans. Certain factors or determinants demonstrate a better behaviour than others when tested in a turnaround management environment. Models can be developed pertaining to the turnaround plans. Models development need to be adapted in certain cases as it cannot be applied universally.

It can also be concluded that the turnaround plans can be applied in the case of distressed and ailing projects. It does not require the entire organisation to be subjected to a turnaround plan, but when a problem has been detected in a certain division, branch or department. There will be interfaces between the affected area with the rest of the organisation or company. It can also be shown through results obtained that there is some understanding of South African Water Sector Institutional Re-alignment Project. The study also indicated that various institutions, organisations, and companies embark on turnaround plans. Turnaround plans are not concentrated in certain industries as demonstrated by the case studies.

5.3 SUMMARY OF CONTRIBUTIONS

The study undertaken by the researcher is meant to contribute to the field of the turnaround management strategies or recovery plans. The turnaround management strategies, and turnaround plans are applied in all fields and in all sectors of businesses. The study in this field is normally shrouded in mystery or secrecy due to the conditions that managers find themselves in or their businesses in when they decide or are brought in to embark on a turnaround exercise.

There has been a lot of turnaround plans undertaken, but the details of the results or outcomes are not normally released to the public or made into publicly available documentation. Contributions will be made in terms of an application in a certain sector, what sort of determinants can be considered, and also the value that can be derived from doing such a study.

The real world requires an application of tested theory to obtain the desired results. Decisions to appoint a turnaround practitioner is not taken lightly, but is prompted mostly by the shareholders in the business undertaking. The stakeholders also have a role to play as well as company executives and top management. The turnarounds can also be undertaken in small strides in sections, departments, divisions, and branches. The normal trends seen are to bring an outsider into a troubled company in order to bring to normality the operations. This is influenced by the lateral thinking, and lack of baggage or even empathy with the company in question.

5.4 LIMITATIONS

The limitations of the study have been a research done at one water board instead of all the nine water boards operating in South Africa. The study could be extended regionally by taking water boards operating along coastal areas or water boards that operate inland. It can also be done for the whole country taking into consideration all the water boards or even other water-related entities in municipalities and outside.

The can also be applied in a different context or setting. Maybe applied in a different industry or sector. It also can also be done continentally or even internationally. Some limitations in terms of resources that are time limits and other resources resulted in a study only in a specific area of water board.The researcher believes that the study can also be expanded by taking a much different angle or approach in the turnaround management strategies, by focusing more on the determinants analysis or factor analysis. It could also be a special focus on the turnaround managers themselves as opposed to the turnaround management process itself.

5.5 AREAS OF FUTURE RESEARCH

As most research studies cannot be comprehensive enough to cover all knowledge areas in the universe on a particular subject, there will always be gaps that need to be plugged further. Some of the areas of future research in the turnaround management strategies that could be explored further include the following:

- Assess the role of managers and executives in the turnaround management strategies;
- Role of stakeholders in the turnaround plans;
- The turnaround management strategies in different sectors and industries;
- The turnaround management plans in government institutions;
- Recovery plans for SMMEs;
- Factors influencing the turnaround management strategies;
- Assess role of Board of Directors, and Board Committees in the turnaround plans;
- Development of dashboard for assessing success of a turnaround plan;
- Indicators of an unsuccessful turnaround management strategies;
- Attributes of the successful turnaround management strategist;
- Role of the turnaround plans in the private sector;
- Impact of the turnaround plans on the economy;
- Assess viability of a turnaround plan; and
- Development of a Turnaround Management Strategy Index for checking the turnaround activity in different sectors.

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ANNEXURE A: QUESTIONNAIRE

A. INTRODUCTION

This questionnaire is forming part of mini-dissertation titled “Assessing turnaround management strategies in a water board” The Researcher is compiling Mini-dissertation as a partial fulfilment towards Masters in Business Administration (MBA) at the North-West University Potchefstroom Business School. The researcher is conducting this study for academic purposes under the supervision of Professor Christoff Botha (018 299 1672). Identities of respondents will not be revealed. The research is conducted following the Ethical Guidelines of the North-West University.

For further enquiries, the Researcher, Mr Mpheteng Mokubung can be contacted on 071 759 9792 or mpmokubung@gmail.com.

You are requested to complete the questionnaire and the information will be used for academic purposes. It will take approximately 15 to 20 minutes to complete the questionnaire. Thanking you in advance.

B. DEMOGRAPHIC INFORMATION

Please tick in the appropriate category.

1. AGE CATEGORY (YEARS)	20 to 30	31 to 40	41 to 50	51 to 60	Other
	1	2	3	4	5
2. OCCUPATION					
3. OCCUPATION LEVEL					
3.1 Supervisory	1				
3.2 Middle Management	2				
3.3 Senior Management	3				
3.4 Executive	4				
3.5 Specialist	5				
3.6 Other (Specify)	6				
4. EDUCATION LEVEL					
4.1 No Matric	1				
4.2 Matric	2				
4.2 Diploma	3				
4.3 Three-Year Degree	4				
4.4 Four-Year Degree	5				
4.5 Post Graduate Qualifications (Specify) ……	6				
4.6 Other	7				
5. GENDER					
5.1 Male	1				
5.2 Female	2				

C. QUESTIONS

Instructions: Please tick on answering

Five (5) Point Likert Scale is used:

To what extent do you agree or disagree with the statements below?

SCALE	**5**	**4**	**3**	**2**	**1**
	Totally agree	*Agree*	*Neither agree nor disagree*	*Disagree*	*Totally Disagree*
1. The strategy of your company embraces uncertainty.					
2. Turnaround companies differ in their structural characteristic from non-turnaround companies.					
3. The causes of declines in companies can be identified.					
4. Characteristics of successful turnaround managers are known.					
5. There is a general sequence of successful recovery actions.					
6. A water sector Institutional Re-alignment Project is well known.					
7. Reduction or suspension of capital expenditure is a sign of turnaround strategy.					
8. Turnaround management strategies are common in water boards.					
9. Consolidation and dis-establishment of water boards is necessitated by business decline.					
10. Skills sets required for turnaround plans					

are different from normal management.					
11. Determinants of successful turnarounds are well known.					
12. Factors contributing to distressed projects are well communicated to stakeholders.					
13. There are well documented turnaround lessons learnt in the company.					
14. Causes of demise of other water boards are well understood in the industry (eg. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc)					
15. Determinants of turnaround management strategies are:					
15.1 Cost reductions					
15.2 Efficiency initiatives					
15.3 Changes in management					
15.4 Performance measures					
15.5 Financial structure					
15.6 Company or Organisation size					
16 Additional comments: …… ……					

THANK YOU VERY MUCH FOR COMPLETING THIS QUESTIONNAIRE.

Mpheteng Mokubung (Researcher)

ANNEXURE B: STATISTICAL ANALYSIS RESULTS AND DEMOGRAPHIC INFORMATION TABLES AND CHARTS

TABLE 20: One-Way ANOVA Factor Scores and Effect Sizes based on Occupation Level

	N	Mean	Std Deviation	Std Error	95 % Confidence Interval for Mean		Minimum	Maximum	Effect Sizes	2 &	3 &	5 &
					Lower Bound	Upper Bound						
	10	2.7143	0.50843	0.16078	2.3506	3.078	1.86	3.43				
	41	2.7499	0.38697	0.60430	2.6277	2.872	2.00	3.64	0.07			
	9	2.6557	0.56799	0.18933	2.2191	3.0923	1.57	3.57	0.1	0.17		
	15	2.6413	0.42946	0.11089	2.4034	2.8791	1.64	3.29	0.14	0.25	0.03	
Factor	7	2.5581	0.66639	0.25187	1.9418	3.1744	1.69	3.50	0.23	0.29	0.15	0.12
Score	82	2.6990	0.45076	0.04978	2.5999	2.798	1.57	3.64				
	10	2.5442	0.42600	0.13471	2.2395	2.849	1.84	3.20				
	41	2.5470	0.32786	0.05120	2.4435	2.6505	1.79	3.35	0.01			
	9	2.4857	0.46123	0.15374	2.1311	2.8402	1.65	3.25	0.13	0.13		
	15	2.5160	0.39395	0.10172	2.2978	2.7342	1.67	3.00	0.07	0.08	0.07	
Factor	7	2.3370	0.49910	0.18864	1.8754	2.7986	1.68	2.75	0.42	0.42	0.3	0.36
Score 2	82	2.5163	0.37814	0.04176	2.4332	2.5994	1.65	3.35				

TABLE 21: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
	Between Groups	0.314	4	0.079	0.375	0.826
	Within Groups	16.144	77	0.21		
Fact_score	Total	16.458	81			
	Between Groups	0.280	4	0.07	0.477	0.753
	Within Groups	11.302	77	0.147		
Fact_score2	Total	11.582	81			

TABLE 22: T-test
Gender

B5 (Gender)		N	Mean	Std. Deviation	Std. Error Mean	Effect Size
C1	1.00	53	3.1132	1.17113	0.16087	
	2.00	28	2.7143	1.08379	0.20482	0.34
C1	1.00	52	2.2115	0.72319	0.10029	
	2.00	27	2.1481	0.60152	0.11576	0.09

C3	1.00	54	1.5556	0.57188	0.07782	
	2.00	28	2.0000	0.72008	0.13608	0.62
C4	1.00	53	2.0755	0.82855	0.11381	
	2.00	28	2.2857	1.15011	0.21735	0.18
C5	1.00	52	2.2692	0.76991	0.10677	
	2.00	28	2.8929	0.95604	0.18068	0.65
C6	1.00	54	2.6481	1.06678	0.14517	
	2.00	28	3.3571	1.12922	0.21340	0.63
C7	1.00	54	3.2407	1.13162	0.15399	
	2.00	28	2.7500	1.10972	0.20972	0.43
C8	1.00	54	2.9815	1.01852	0.13860	
	2.00	28	2.7857	0.78680	0.14869	0.19
C9	1.00	54	3.6111	1.08882	0.14817	
	2.00	28	2.7857	0.83254	0.15734	0.76
C10	1.00	54	2.2222	1.02178	0.13905	
	2.00	28	2.5714	0.92009	0.17388	0.34
C11	1.00	53	2.2830	0.88529	0.12160	
	2.00	28	2.7500	1.04083	0.19670	0.45
C12	1.00	54	3.2037	1.15546	0.15724	
	2.00	28	2.7500	1.35058	0.25524	0.34
C13	1.00	54	3.4815	1.19339	0.16240	
	2.00	28	3.4643	1.20130	0.22702	0.01
C14	1.00	54	2.6481	1.15182	0.15674	
	2.00	28	2.8929	1.22744	0.23196	0.20
C15.1	1.00	46	2.3043	1.15219	0.16988	
	2.00	25	2.4400	1.00333	0.20067	0.12
C15.2	1.00	53	1.6981	0.60717	0.08340	
	2.00	26	1.9231	0.84489	0.16570	0.27

C15.3	1.00	53	2.1321	0.80950	0.11119	
	2.00	27	1.9259	0.67516	0.12993	0.25
C15.4	1.00	53	1.6415	0.59142	0.08124	
	2.00	28	1.8929	0.68526	0.12950	0.37
C15.5	1.00	52	1.9615	0.65564	0.09092	
	2.00	28	2.3214	0.98333	0.18583	0.37
C15.6	1.00	53	2.6226	0.98501	0.13530	
	2.00	28	2.3929	1.10014	0.20791	0.21

TABLE 23: Gender against Statement Effect Sizes (Small Effect)

Statement Code	Statement	Effect Size
C1	The strategy of your company embraces uncertainty	0.34
C2	Turnaround companies differ in their structural characteristics from non-turnaround companies	0.09
C4	Characteristics of succesful turnaround managers are known	0.18
C7	Reduction or suspension of capital expenditure is a sign turnaround strategy	0.43
C8	Turnaround management strategies are common in water boards	0.19
C10	Skills sets required for turnaround plans are different from normal management	0.34
C12	Factors contributing to distressed projects are well communicated to stakeholders	0.34
C13	There are well documented turnaround lessons learnt in the company	0.01
C14	Causes of demise of other water boards are well understood in the industry (e.g. Botshelo Water, Bushbuckridge Water, Namakwa Water, etc)	0.20
C15.1	Determinants of turnaround management strategies are cost reductions	0.12
C15.2	Determinants of turnaround management strategies are efficiency initiatives	0.27
C15.3	Determinants of turnaround management strategies are changes in management	0.25
C15.4	Determinant of turnaround management strategies is performance measures	0.37

C15.5	Determinant of turnaround management strategies is financial structure	0.37
C15.6	Determinant of turnaround management strategies is company or organisation size	0.21

TABLE 24: Gender against Statements (Medium Effect)

Statement Code	Statement	Effect Size
C3	The causes of declines in companies can be identified	0.62
C5	There is a general sequence of succesful recovery actions	0.65
C6	A water sector institutional re-alignment project is well known	0.63
C11	Determinants of succesful turnarounds are well known	0.45

TABLE 25: Gender against Statements (Large Effect)

Statement Code	Statement	Effect Size
C9	Consolidation and dis-establishment of water boards was necessitated by business decline	0.76

TABLE 26: Frequency Table Age Category (B1)

Code	Frequency	%	Valid %	Cumulative %
1 (20 to 30 yrs)	16	19.5	19.5	19.5
2 (31 to 40 yrs)	47	57.3	57.3	76.8
3 (41 to 50 yrs)	18	22.0	22.0	98
4 (51 to 60 yrs)	1	1.2	1.2	100
Total	82	100.0	100.0	

TABLE 27: Frequency Table Occupational Levels (B3)

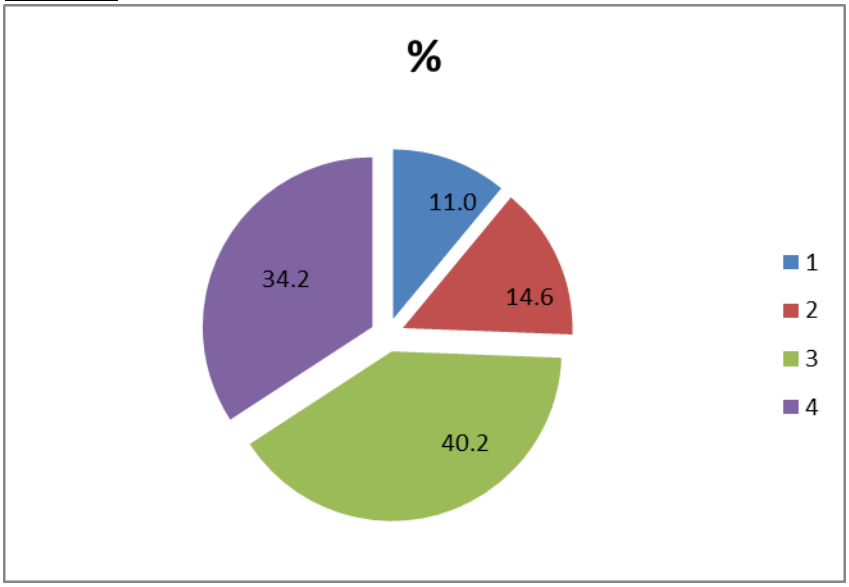
Code	Frequency	%	Valid %	Cumulative %
1 (Supervisory)	10	12.2	12.2	12.2
2 (Middle Management)	41	50.0	50.0	62.2
3 (Senior Management)	9	11.0	11.0	73.2
5 (Specialist)	15	18.3	18.3	91.5
6 (Other)	7	8.5	8.5	100.0
	82	100.0	100.0	

TABLE 28:Frequency Table Education Level (B4)

Code	Frequency	%	Valid %	Cumulative %
3 (Diploma)	9	11.0	11.0	11.0
4 (Three-Year Degree)	12	14.6	14.6	25.6
5 (Four-Year Degree)	33	40.2	40.2	65.9
6 (Post Graduate)	28	34.2	34.2	100.0
Total	82	100.0	100.0	

Code	%
3 (Diploma)	11.0
4 (Three-Year Degree)	14.6
5 (Four-Year Degree)	40.2
6 (Post Graduate)	34.2
Total	100.0

CHART 5: Education Levels



Code	Frequency	%	Valid %	Cumulative %
1 (Male)	54	65.9	65.9	65.9
2 (Female)	28	34.1	34.1	100.0
Total	82	100.0	100.0	

Code	%
1 (Male)	65.9
2 (Female)	34.1
Total	100.0

Chart 6: Gender Split

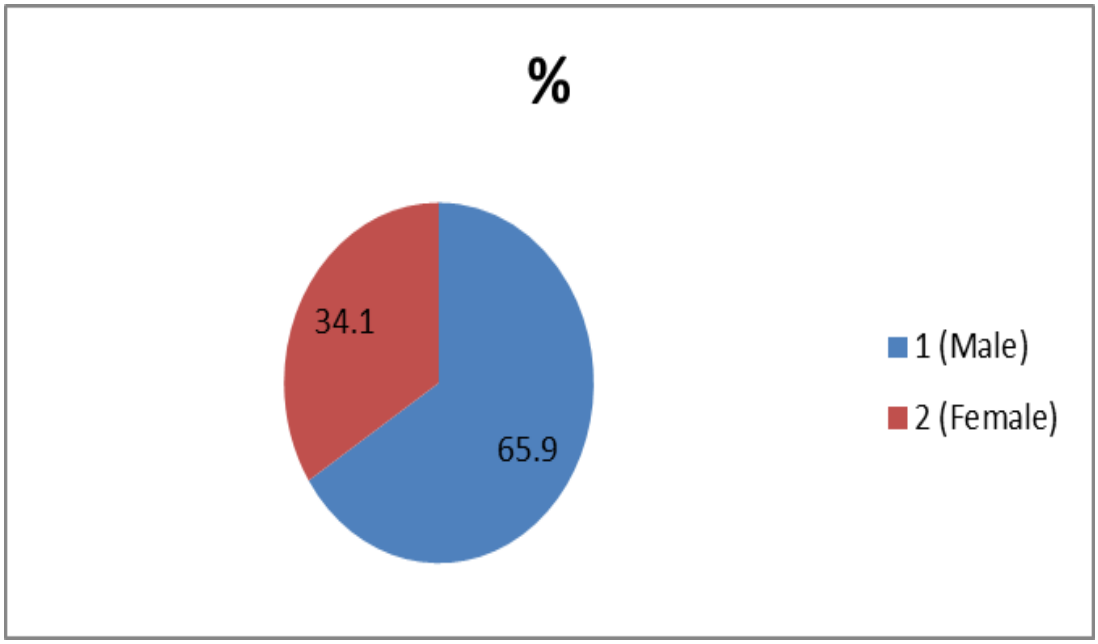


TABLE 30: Frequency Table Statement C1

Code	Frequency	%	Valid %	Cumulative %
1	5	6.1	6.2	6.2
2	31	37.8	38.3	44.4
3	14	17.1	17.3	61.7
4	23	28.0	28.4	90.1
5	8	9.8	9.9	100.0
Missing	1	1.2		
Total			100.0	

TABLE 31: Frequency Table Statement C2

Code	Frequency	%	Valid %	Cumulative %
1	11	13.4	13.9	13.9
2	43	54.4	54.4	68.4
3	24	29.3	30.4	98.7
4	1	1.2	1.3	100.0
Total	79	96.3	100.0	
Missing	3	3.7		
Grand Total	82	100.0		

TABLE 32: Frequency Table Statement C3

Code	Frequency	%	Valid %	Cumulative %
1	32	39.0	39.0	39.0
2	43	52.4	52.4	91.5
3	6	7.3	7.3	98.8
4	1	1.2	1.2	100.0
Total	82	100.0	100.0	

TABLE 33: Frequency Table Statement C4

Code	Frequency	%	Valid %	Cumulative %
1	18	22.0	22.2	22.2
2	45	54.9	55.6	77.8
3	7	8.5	8.6	86.4
4	10	12.2	12.3	98.8
5	1	1.2	1.2	100.0
Total	81	98.8	100.0	
Missing	1	1.2		
Grand Total	82	100.0		

TABLE 34: Frequency Table Statement C5

Code	Frequency	%	Valid %	Cumulative %
1	8	9.8	10.0	10.0
2	38	46.3	47.5	57.5
3	21	25.6	26.3	83.8
4	13	15.9	16.3	100.0
Total	80	97.6	100.0	
Missing	2	2.4		
Grand Total	82	100.0		

TABLE 35: Frequency Table Statement C6

Code	Frequency	%	Valid %	Cumulative %
1	9	11.0	11.0	11.0
2	26	31.7	31.7	42.7
3	16	19.5	19.5	62.2
4	27	32.9	32.9	95.1
5	4	4.9	4.9	100.0
Total	82	100.0	100.0	

TABLE 36: Frequency Table Statement C7

Code	Frequency	%	Valid %	Cumulative %
1	7	8.5	8.5	8.5
2	21	25.6	25.6	34.1
3	21	25.6	25.6	59.8
4	25	30.5	30.5	90.2
5	8	9.8	9.8	100.0
Total	82	100.0	100.0	

TABLE 37: Frequency Table Statement C8

Code	Frequency	%	Valid %	Cumulative %
1	4	4.9	4.9	4.9
2	25	30.5	30.5	35.4
3	30	36.6	36.6	72.0
4	20	24.4	24.4	96.3
5	3	3.7	3.7	100.0
Total	82	100.0	100.0	

TABLE 38: Frequency Table Statement C9

Code	Frequency	%	Valid %	Cumulative %
1	1	1.2	1.2	1.2
2	21	25.6	25.6	26.8
3	24	29.3	29.3	56.1
4	22	26.8	26.8	82.9
5	14	17.1	17.1	100.0
Total	82	100.0	100.0	

TABLE 39: Frequency Table Statement C10

Code	Frequency	%	Valid %	Cumulative %
1	12	14.6	14.6	14.6
2	46	56.1	56.1	70.7
3	11	13.4	13.4	84.1
4	10	12.2	12.2	96.3
5	3	3.7	3.7	100.0
Total	82	100.0	100.0	

TABLE 40: Frequency Table Statement C11

Code	Frequency	%	Valid %	Cumulative %
1	11	13.4	13.6	13.6
2	39	47.6	48.1	61.7
3	15	18.3	18.5	80.2
4	16	19.5	19.8	100.0
Total	81	98.8	100.0	
Missing	1	1.2		
Grand Total	82	100.0		

TABLE 41: Frequency Table Statement C12

Code	Frequency	%	Valid %	Cumulative %
1	9	11.0	11.0	11.0
2	23	28.0	28.0	39.0
3	15	18.3	18.3	57.3
4	25	30.5	30.5	87.8
5	10	12.2	12.2	100.0
Total	82	100.0	100.0	

TABLE 42: Frequency Table Statement C13

Code	Frequency	%	Valid %	Cumulative %
1	6	7.3	7.3	7.3
2	14	17.1	17.1	24.4
3	12	14.6	14.6	39.0
4	35	42.7	42.7	81.7
5	15	18.3	18.3	100.0
Total	82	100.0	100.0	

TABLE 43: Frequency Table Statement C14

Code	Frequency	%	Valid %	Cumulative %
1	10	12.2	12.2	12.2
2	33	40.2	40.2	52.4
3	15	18.3	18.3	70.7
4	17	20.7	20.7	91.5
5	7	8.5	8.5	100.0
Total	82	100.0	100.0	

TABLE 44: Frequency Table Statement C15.1

Code	Frequency	%	Valid %	Cumulative %
1	16	19.5	22.5	22.5
2	30	36.6	42.3	64.8
3	11	13.4	15.5	80.3
4	12	14.6	16.9	97.2
5	2	2.4	2.8	100.0
Total	71	86.6	100.0	
Missing	11	13.4		
Grand Total	82	100		

TABLE 45: Frequency Table Statement C15.2

Code	Frequency	%	Valid %	Cumulative %
1	28	34.1	35.4	35.4
2	43	52.4	54.4	89.9
3	6	7.3	7.6	97.5
4	2	2.4	2.5	100.0
Total	79	96.3	100.0	
Missing	3	3.7		
Grand Total	82	100.0		

TABLE 46: Frequency Table Statement C15.3

Code	Frequency	%	Valid %	Cumulative %
1	17	20.7	21.3	21.3
2	45	54.9	56.3	77.5
3	14	17.1	17.5	95.0
4	4	4.9	5.0	100.0
Total	80	97.6	100.0	
Missing	2	2.4		
Grand Total	82	100.0		

TABLE 47: Frequency Table Statement C15.4

Code	Frequency	%	Valid %	Cumulative %
1	29	35.4	35.8	35.8
2	46	56.1	56.8	92.6
3	5	6.1	6.2	98.8
4	1	1.2	1.2	100.0
Total	81	98.8	100.0	
Missing	1	1.2		
Grand Total	82	100.0		

TABLE 48: Frequency Table Statement C15.5

Code	Frequency	%	Valid %	Cumulative %
1	16	19.5	20.0	20.0
2	46	56.1	57.5	77.5
3	14	17.1	17.5	95.0
4	3	3.7	3.8	98.8
5	1	1.2	1.3	100.0
Total	80	97.6	100.0	
Missing	2	2.4		
Grand Total	82	100.0		

TABLE 49: Frequency Table Statement C15.6

Code	Frequency	%	Valid %	Cumulative %
1	11	13.4	13.6	13.6
2	33		40.7	54.3
3	22		27.2	81.5
4	12		14.8	96.3
5	3		3.7	100
Total	81	98.8	100	
Missing	1	1.2		
Grand Total	82	100		