

BOARD ROLES AND PERFORMANCE AT NATIONAL WATER AND SEWERAGE
CORPORATION (NWSC) IN KAMPALA-UGANDA

By

Jovianne Barbra Mugobyia

May15/MPAM /0766U

Supervisor

Professor Benon. C. Basheka

UTAMU

A Proposal submitted to the School of Business and Management in partial fulfillment of the requirements for the award of Masters in Public Administration and Management of Uganda

Technology and Management University (UTAMU)

March 2016

TABLE OF CONTENT

	Page
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Introduction.....	1
1.2 Background to the study	1
1.2.1 Global context.....	1
1.2.2 African context.....	5
1.2.3 Ugandan Context	6
1.3 Statement of the problem.....	9
1.4 Purpose of the study.....	11
1.5 Objectives of the study.....	11
1.6 Research Questions.....	11
1.7 Hypotheses of the study.....	12
1.8 Conceptual Framework.....	13
1.9 Significance of the study.....	14
1.10 Justification of the study.....	15
1.11 Scope of the study.....	15
1.11.1 Content Scope	15
1.11.2 Geographical Scope	15
1.11.3 Time Scope	16
1.12 Operational Definitions.....	16
CHAPTER TWO	18
LITERATURE REVIEW	18

2.1 Introduction.....	18
2.2Theoretical review	18
2.3 Monitoring role of the Board and organizational performance.	20
2.4 Service Role of the Board and organizational performance.	23
2.5 Strategic role and organizational performance	24
2.6 Empirical studies.....	26
2.7 Synthesis of the literature review and gap analysis	29
CHAPTER THREE	30
METHODOLOGY	30
3.1 Introduction.....	30
3.2 Research design	30
3.3 Study population.....	31
3.4 Determination of sample size.....	31
3.5 Sampling technique and procedure.....	32
3.5.1 Purposive sampling Technique	32
3.5.2 Simple random sampling technique.....	32
3.6 Data collection methods.....	32
3.6.1 Survey Method.....	32
3.6.2 Interview method.	33
3.6.3 Document review method.....	33
3.8 Pre-testing (validity and reliability).....	34
3.8.1 Validity of instruments	34
3.8.2 Reliability of instruments.....	35
3.9 Procedure of data collection.....	35
3.10 Data analysis	35

3.11 Measurement of variables	36
3.12 Ethical Considerations	37
REFERENCES.....	37
APPENDICES	50
APPENDIX I: QUESTIONNAIRE	50
APPENDIX II: INTERVIEW GUIDE	58
APPENDIX III: DOCUMENTARY CHECKLIST.....	60
APPENDIX IV: WORK PLAN AND TIME FRAME.....	61
APPENDIX IV: KREJCIE & MORGAN’S TABLE FOR DETERMINING SAMPLE SIZE ...	62

LIST OF FIGURES AND TABLE

Figure 1: Conceptual Framework.....	13
Table 1: Performance of NWSC over time.....	9
Table 2: Sampled research respondents.....	30

LIST OF ACRONYMS

ACCA : Association of Chartered Certified Accountants

BODs : Board of Directors

CEO : Chief Executive Officer

CMA : Capital Markets Authority

FRC : Financial Reporting Council

ICGN : International Corporate Governance Network

ICGU : Institute of Corporate Governance of Uganda

IREC : International Resource Centre

NED : Non- Executive Directors

NWSC : National Water and Sewerage Corporation

OECD : Economic Cooperation and Development

SOEs : State Owned Enterprises

SPSS : Scientific Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This study examines the relationship between Board roles and performance at National Water and Sewerage Corporation (NWSC). Board roles in this study are conceived as the independent variable while organizational performance as the dependent variable. Board roles will be measured in form of monitoring, service, and strategic roles of the Board while performance will be measured in form of quality, productivity, efficiency. In addition to the introduction, this chapter will also deal with the background to the study, the statement of the problem, purpose of the study, the objectives of the study, the research questions, the hypotheses, the scope of the study, the significance of the study, Justification, and operational definitions of terms and concepts.

1.2 Background to the study

1.2.1 Global context

Governance has become an issue for all bodies corporate, commercial, not for profit and public sector organizations (Souster 2012:2). Godfrey, (2002) as cited in Miring and Muoria, (2011:37) contends that “the proper governance of companies will become as crucial to the world economy as the proper governance of countries”. Khoza and Adam, (2005) as cited in Chata, (2010:5) assert that good governance is not just about being simply politically correct as today’s public enterprises seem to be going about their business. Good governance is rather inextricably linked to the performance of a company in terms of profit, expansion and employability. They further

affirm that not only does good governance enhance corporate performance, it reassures stakeholders that the company is being well-run. Mwanzia and Wong, (2011:15) further argue that organizations must be well governed in order to achieve their objectives. To supplement the above arguments, Cornforth and Chambers (2010:1) unveiled the word “Governance” when they explained that the language used to refer to those that act as governors varies widely across the public sector for example; council, governing body and Board. This view is supported by Pearce and Zahra, (1992) as cited in Heuvel, Gils and Voordeckers, (2005:1) who contend that any achievement in a company whether private or public is attributed to the Board which is the overall governing body.

Corporate Governance has now become an international topic. The Cadbury report defines Corporate Governance as the system by which companies are directed and controlled (Cadbury Report, 1992:5). This concise explanation clearly broadens what Corporate Governance implies and the precise roles that leaders in charge of an organization have to undertake in order to foster best practices. However for most companies, the leaders are the Board of Directors(BODs) who has the mandate to decide long-term strategies putting into consideration the interests of shareholders and various stakeholders (Souster, 2012:1). An efficient, effective and accountable BODs is not only essential to every company but is now demanded by the Code of Corporate Governance in almost all civilized jurisdictions of the world (Kunle, 2013:21). In support of Kunle’s view, Renée, Hermalin and Weisbach, (2010:96) argued that because of corporations’ enormous share of economic activity in modern economies, the cost of their agency problems is extremely important. One could say that the principal/agent problem between managers and shareholders is most effectively resolved by shifting decision-making out of the hands of the agent (managers) and back into the hands of the principal (shareholders) through the Board. Therefore, appreciating the role of Boards is vital both for understanding corporate behavior and

setting of policy to regulate corporate activities that may positively impact on organisational performance. Hough,(2009:1) appends the above argument when he contends that the occurrence of various corporate scandals like Enron, WorldCom and Maxwell Communications demonstrated that the issue of Board understanding of, and influence on performance of organizations they govern is a matter of great importance. He further noted that after the occurrence of these corporate scandals, the common refrain among commentators was; ‘Where was the Board in all this?’, ‘How could the directors not have known what was going on?’ and ‘Why didn’t the Board intervene?’ Due to these repeatedly asked questions, the world was compelled to acknowledge the profound impact of Corporate Governance and the Board in an economy.

In support of the above, Solomon and Solomon (2004:45-56) observed that the UK advanced to Corporate Governance practices by publishing various Corporate Governance reports such as; the Cadbury Report (1992), Green bury Report (1995), Hampel Report (1996), Turnbull report (1999), Higgs report (2003) and Smith Report (2003) that recommended best Corporate Governance practices to enhance company performance and shareholder satisfaction. It was observed that these reports were combined to form the UK governance code known as the combined code, (2003) that acts as a guide to the governance of an organization. In addition, Kunle, (2013:27) argues that the UK Code 2012 guides on the role of the Board as it provides that: “Every company should be headed by an effective Board which is collectively responsible for the long-term success of the company.

The US also responded to Corporate Governance challenges by establishing the Sarbanes-Oxley Act (SOA) 2002 that set new requirements for all Public company boards, management, and public accounting firms. Boards have clearly been put in the spotlight as the Act provides for the

accountability of company executives and members of the Board when undertaking their roles (Jahmani and Dowling, 2008:34). In agreement with this development, Deloitte, (2015) noted that Boards in the US are presently showing signs of a strong recovery and are tasked to clearly communicate to organizations' key stakeholders; from shareholders who want more transparent disclosures to stakeholders who want assurance that the organization shares their values and is a good corporate citizen.

The need to promote Corporate Governance did not only remain a reserve for the countries affected. International bodies such as the International Corporate Governance Network (ICGN) and Organization for Economic Cooperation and Development (OECD) were also forced to intervene. For example; the ICGN developed guidelines for Corporate Governance making mention of the responsibilities of Boards (ICGN, 2005: 6-9). The OECD as well developed guidelines that also urge the Board to effectively monitor and guide company strategies while observing accountability to both shareholders and stakeholders (OECD, 2015).

Finally on the global view, Watson, (2004) as cited in Chata, (2010:87) affirms that the Board is usually undermined in the eyes of some. For example; the Public sector in most jurisdictions in Canada and throughout the Commonwealth has no systematic process for recruiting directors to Public corporations. It has been observed that appointment procedures of BODs have affected the judgment in decision making and organizational performance at large since they are usually made or recommended by ministers on an ad hoc basis depending on the minister's understanding of the role of directors.

1.2.2 African context

It should be noted that though the challenges of Corporate Governance are more pronounced in the developed world, it does not imply that African organizations are performing any better. In support of this view, Strenger et al.(2012) note that most African countries are finding Corporate Governance and Board management something new and marred with conflicts of interest and mismanagement. He noted that 35% percent of companies in Africa collapse because of the inefficiency, negligence by Board members, and deficiency in political and managerial autonomy. For example, the Board's role and its performance had long been neglected in Nigeria. It was not until November 2003 when a code of Corporate Governance in Nigeria was developed to spell out a set of recommendations on how to promote Board efficiency, independence and Corporate Governance. Even after efforts had been made to advance Corporate Governance practices, it was observed that there were still Corporate Governance failures in Nigeria. Kunle, (2013:25-29) argues that in April 2011, the Securities and Exchange Commission (SEC) issued the new code that clearly states that "the primary responsibility for ensuring good Corporate Governance in companies lies with the Board". The current statutory intervention is presently placing a much stricter burden on the Non-Executive Directors (NED) to ensure that they delegate duties and attend meetings in order to effectively monitor the activities of the executive.

The situation in South Africa is closely related to that of Nigeria where Corporate Governance was institutionalized by the publication of the King Report on Corporate Governance which provides specific guidelines for corporate governance (Nevondwe, Odeku and Tshoose: 263-264). Presently, the King Report III and the code apply to all incorporated entities regardless of whether they are public, private or nonprofit to place vast emphasis on the structure, role and

effectiveness of a Board in governance of an organization. It further describes the Board as the focal point of Corporate Governance systems which is ultimately responsible for; appointment of the Chief Executive Officer (CEO), implementation of company strategies, delegation of authority to Board committees or management, ensuring compliance with all relevant laws, and prompt communication with its share owners and relevant stakeholders (Institute of Directors Southern Africa [IoDSA],2009).

Due to a paucity of research in the field of African Corporate Governance, a relative neglect of Corporate Governance in Africa's public policy has been observed. Tumuheki, (2007:6) condones the above view when he contends that Corporate Governance has now become of particular concern in many African economies that greatly rely on the infusion of international investor capital and foreign aid for economic stability and growth.

1.2.3 Ugandan Context

We cannot deny the fact that in 1962, Uganda was one of Africa's most economically promising countries based on the continued investment in rehabilitation of infrastructure and improved incentives for food production. Such performance gave the government an impression that the country's affairs would immensely improve and therefore continued to facilitate foreign investment with attractive incentives streamlining import and export procedures (Tumuheki 2007:8). In 1971 to mid-1980, the economy fell into a crisis under the strain of nationalization of industries which destroyed the opportunity of creating an environment for checks and balances especially in State-Owned Enterprises (SOEs) that were tasked with the performance of a dual role as regulators and business entities such as; the former Uganda Posts and Telecommunications Corporation (UPTC), Uganda Electricity Board, Uganda Foods and

Beverages, Dairy Corporation and the Uganda Coffee Marketing Board (ICGU, 2008: 28). According to Mutenyo (2010), appointments to Board positions in these organizations had political dimensions that affected the effectiveness of the Board in undertaking its roles such as; reward for contribution to the 1980-1986 war that led to the NRM taking over government. It was further noted that Board members had almost personalized their positions to the extent that they could even withdraw money from the company at will.

In view of the above, the government realised that many of the public enterprises were not economically viable and therefore decided to reduce its direct role by transferring these enterprises to the private sector which involved the deployment of private sector models of management (ICGU 2008:30-31). As a result, the Institute of Corporate Governance of Uganda (ICGU) was established in 1998 to give direction to the furtherance of best corporate governance in Uganda. The ICGU's commitment to the cause is demonstrated through organizing trainings, conducting seminars and workshops for a wide-ranging audience of institutional directors and managers, and in 2008 , a manual that stresses the criticality of BODs in the governance of an organization was published (ICGU, 2008:34-40).

It should however be noted that despite the developments in Corporate Governance, Uganda is still faced with the challenge of creating a foreign investment-friendly environment within which good Corporate Governance is crucial for success. Kyepa, (2013:1-3) however raises a concern that Corporate Governance in Uganda mainly applies to listed enterprises and the banking sector which affects the development of a Corporate Governance framework for SOEs. He further argues that Uganda does not have a distinct Corporate Governance framework and a central institution that is dedicated to supervising SOEs. In his argument, he clearly points out that the Companies Bill of 2009 attempts to introduce the concept of Corporate Governance in all

companies but remains silent on the specific parts of the Code that should be adopted which makes the bill ineffective in dealing with Corporate Governance matters.

Although it has been observed that the Public Sector in poor countries is almost written off as inefficient, resistant to reform, and prone to wasting precious resources, Uganda’s public sector organizations have tried to adapt to the private sector management styles and these attempts have shown improved governance capacity in Public sector performance especially in the water sector. For example in 1998, NWSC was considered to be an unhealthy corporation due to managerial inefficiencies. During this period, the biggest critic of the NWSC was the Directorate of Water Development (DWD) itself. Doubts were expressed as to whether the internal reforms at NWSC were really working (Water Aid, 2003:1). In search for internal reforms, there was an introduction of change management programs that resulted into non-interference of the government with the corporation’s management and the appointment of a BODs that was required to support management in creating strategies for a more desirable performance (Mugisha and Berg, 2006:5). This enabled NWSC to improve on its performance over the years as illustrated below;

Table 1: Performance of NWSC between 1998 and 2011

No	Performance Indicator	1998	2011
1	Service coverage	48%	75%
2	Total connection	50,826	272,406
3	New Connections per year	3,317	25,623
4	Metered Connections	37,217	271,734

5	Staff per 1000 Connections	36	6
6	Collection Efficiency	60%	96%
7	NRW	60%	32.8%
8	Proportion Metered Accounts	65%	99.8 %
9	Annual Turnover (million USD)	11	50
10	Profit (Before. Dep) (Millions USD)	4.0 (loss)	11.0 (Surplus)

Adopted from a presentation made by (Muhairwe 2011:15)

NWSC has made an immense transformation from being a highly inefficient body to a respectable, financially sustainable and efficient service provider. NWSC is presently governed by effective, hardworking, committed and passionate leaders who are said to have a good mix of skills that enable it to exercise its mandate (Matta and Murphy, 2005:1-4). As Jesus Moran, the CEO of World Confederation of Businesses presented the world's most important business excellence award to the corporation, he congratulated it for consistently going above and beyond in its compliance with the evaluation criteria for business excellence such as; business leadership, quality of service, management systems, innovation and creativity and Corporate Social Responsibility(CSR) achievements (Aine, 2015).

1.3 Statement of the problem.

Arnwine, (2002:1) asserts that organizations are breaking down because of problems of governance. He argues that ineffective governance compromises the ability of management to succeed while effective governance greatly assists management and the organization at large. Meredith and Clough, (2005:3) supplement on the above view when they affirm that governance involves the existing systems and processes that shape, enable, and oversee management which is in turn concerned with coordinating day-to-day operations. Given that Corporate Governance

is clearly beneficial, the rapid pace of globalization dictates that fundamental changes must be made by both firms and governments alike to incorporate it.

Therefore, corporations in Uganda can no longer shield themselves from the global movement that is shaping standard principles of Corporate Governance (Tumuheki 2007). NWSC, one of the biggest parastatals in Uganda, underwent significant reforms in its governance level when it appointed a new BODs that in turn appointed a new Chief Executive under whose stewardship came a number of strategies that intended to enhance its performance (Mugisha, 2006:2). Currently, NWSC serves a population of over 18 million and has made exceptional improvement in its performance over the years. It is also true that significant strides have been made by the corporation as evidenced by a massive water extension roll out program that increased service coverage from 23 towns in 2013 to 110 towns in 2015 across the country (Aine 2015). The NWSC experience clearly shows that a hardworking and committed BODs coupled with a good mix of skills are necessary for an organization to make meaningful progress (Muhairwe 2006 as cited by Mugisha, 2006:4). Noteworthy is a study conducted by Renée et.al, (2010:58) that indicated boards are occasionally undermined in the eyes of stakeholders who often wonder whether they matter as their day-to-day impact seems negligible.

What is not clear however is whether the success of an organization is entirely attributed to the ingenuity of the managers or the Board? In response of the above, Ogbechie (2012:6-34) affirms that performance of a company generally reflects the quality and effectiveness of its Board which therefore justifies the need for a better understanding of how this body contributes to the performance at the organization. Studies by Ssekanjako, (2012) and Youseef, (2010) focused on the systems of Corporate Governance that allow sufficient freedom to executives to undertake roles in; decision making for the progress of the company, providing a structure and

methodology to sustain survival of an organization in a globally competitive environment, and emphasizing transparency in the organization. This study therefore aims to examine the relationship between the performance at NWSC and the efforts of the Board in effectively undertaking its roles and how the Board's contribution in performing these roles can be embraced to enhance organizational performance.

1.4 Purpose of the study

The purpose of the study is to examine the relationship between Board roles and performance at NWSC in Kampala.

1.5 Objectives of the study

The following are the objectives of the study:

- i. To analyze how the service role of the Board influences performance at NWSC.
- ii. To establish the relationship between the monitoring role of the Board and performance at NWSC.
- iii. To examine the relationship between the strategic role of the Board and performance at NWSC.

1.6 Research Questions

The study seeks to address the following research questions:

- i. How does the service role of the Board influence performance at NWSC?
- ii. What is the relationship between the monitoring role of the Board and performance at NWSC?

- iii. What is the relationship between the strategic role of the Board and performance at NWSC?

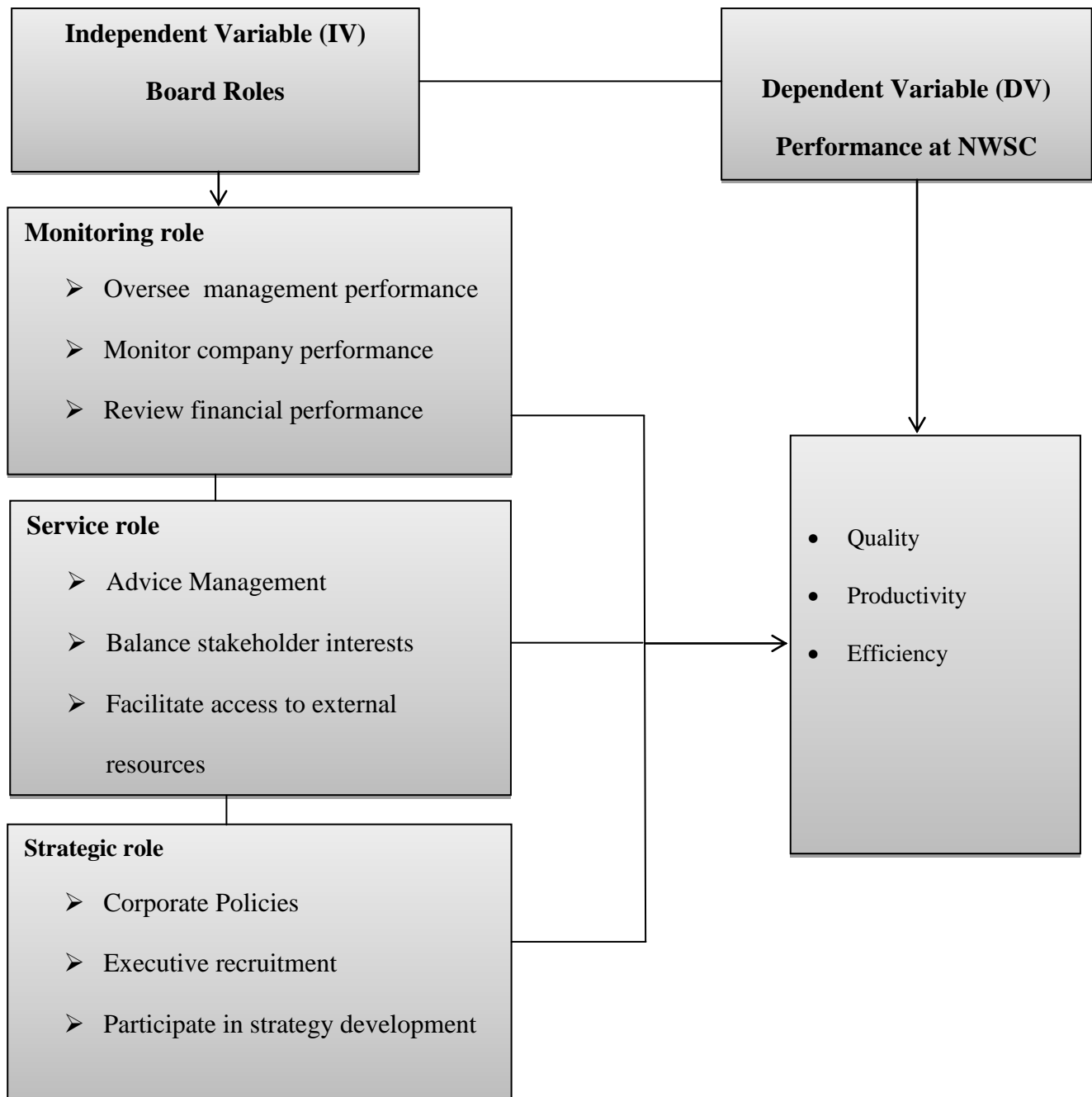
1.7 Hypotheses of the study.

The study will prove the following hypotheses:

- i. The service role of the Board does not influence performance at NWSC.
- ii. There is no significant relationship between the strategic role of the Board and performance at NWSC.
- iii. There is no significant relationship between the monitoring role of the Board and performance at NWSC.

1.8 Conceptual Framework

This conceptual framework explains the relationship between the dependent and independent variable.



*Adapted from Yang, Xue and Yurtoglu, (2007), Babić, Nikolić and Eric, (2011) and modified
by the researcher*

The Board influences corporate performance when it performs not one role but a series of roles required of it (Nicholson and Kiel, 2004:4). In order to understand the Board's contribution to firm performance, we need to understand the various roles required of it as illustrated in the conceptual framework. Nicholson and Newton, (2010) further affirm that Board effectiveness is mainly concerned with task outcomes which occur by fulfilling a role set.

The conceptual framework depicts that the Board directly affects organizational performance by executing the monitoring, service and strategic roles. The figure reflects Board roles as the independent variable (ID) and performance as the dependent variable (DV). The Independent Variable will be measured in form of; strategic role, service role and monitoring role while the dependent variable in form of; quality, timeliness, and productivity.

1.9 Significance of the study

The study will be beneficial to the staff of NWSC and other organizations in providing valuable information about how Boards govern through exercising their roles and will hopefully inform strategies on how to attain exceptional firm performance through increased productivity and stakeholder satisfaction. The proposed study will also add to the existing literature on Board roles and performance of organizations which will be helpful to future researchers. Finally, the study will contribute to the partial award of a Masters in Public Administration and Management (MPAM).

1.10 Justification of the study.

Nicholson and Kiel, (2004:3) affirm that the role of a Board and its impact on corporate governance is a topic of increasing interest to the general community. Despite this increased interest, the understanding of how Boards contribute to corporate performance is underdeveloped. They further argue that there is a shortage of strong descriptive data on how BODs perceive their role and in what respects they can influence the performance of a firm. Daily et.al, (2003) as cited in Nicholson and Newton, (2010:1) argue that extensive research has failed to develop a consensus as to how BODs add value to the corporations they govern. In addition, Stone and Ostrower, (2007) argue that research on the roles and responsibilities that Boards “actually fulfill” has not been extensive despite the fact that this body is crucial to furthering our understanding of governance in action. Based on the magnitude of the problem, the researcher finds it necessary to undertake the current study.

1.11 Scope of the study

1.11.1 Content Scope

The study will be guided by two major variables; Board roles as the independent variable and Performance as the dependent variable.

1.11.2 Geographical Scope

The study will be carried out in Central Uganda, at the NWSC head – office in Kampala and International Research Centre (IREC). NWSC is a public utility company that aims at providing efficient and cost effective Water and Sewerage Services.

1.11.3 Time Scope

The study will be carried out prospectively from the year 2008 to date. As earlier mentioned, the role of the Board and its impact on corporate governance is a topic of increasing interest to the general community. Therefore, the researcher wishes to get updated literature on this topic.

1.12 Operational Definitions

In this study, the following terms will be defined as highlighted;

Corporate Governance- This is proper management of the shareholders' investment in order to quench their expectations of a fair return.

Performance-This is the measurement of a given assignment basing on the key indicators set by the company's management.

Board of directors- these are a group of people that are elected by the different shareholders to supervise management of a firm and assess the overall direction of the company through developing policies and setting up a clear vision, mission and achievable objectives.

Efficiency - Proper utilization of the available resources so as to achieve the desired outcome.

Effectiveness- This basically means achieving the expected outcome out of the set objectives.

Stakeholders- These are the affected parties such as the employees, the community.

Shareholders – These are a group of individuals who invest their resources into the company and expect a valuable return from the organization.

Chief Executive Officer (CEO) - an officer who is the overall of management and is employed by the Board.

Non-Executive /Independent Director - A director who isn't an employee of the organization and does not have any relationship with the company.

Parastatal- This is a company or agency owned and wholly or partly controlled by the Government.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the theories that will guide the study, a review of literature presented thematically in relation to the objectives of the study and a synthesis of the literature review.

2.2 Theoretical review

The study will be guided by the stakeholder, stewardship and agency theories that clearly explain the Board's role in performance of an organization.

The stakeholder theory depicts shareholders as one of a number of important stakeholder groups. This therefore requires a firm and its management to adequately conform to the interests of different stakeholders namely; customers, suppliers, managers, employees, and local communities (Heath and Norman, 2004:247-248). Each of these stakeholder groups greatly contributes to the organization and therefore expects the organization to expeditiously satisfy their interests; managers and employees provide the firm with time and skills and human capital commitments. In exchange, they expect fair income and adequate working conditions. Customers supply the organization with revenues and expect value for money in exchange. Suppliers provide the firm with inputs and seek fair prices and dependable buyers in exchange while local communities provide the firm with location, local infrastructure and perhaps favorable tax treatment and in exchange expect corporate citizens who enhance and /or do not damage the quality of life (Hill and Jones, 1992:133).

This theory intends to guide the study as NWSC is a government parastatal that serves the public at large and is therefore expected to foster trust and open communication among its stakeholders which is considered to be a good public relations practice essential for its profit growth and sustainability. Thus, NWSC Board is required to ensure that management does not only serve shareholders' interests but also those of various stakeholders that contribute to the existence and sustainability of the firm.

On the other hand, the stewardship theory shows trust between managers and owners which therefore implies that the interests of both managers and Board members are not necessarily in conflict (Pugliese et al., 2009 as cited in Babić et al, 2011:143). The theory which conceives managers as good stewards in the corporation's best interests and primarily demands that the board supports and assists managers in achieving the company's goals, mission and objectives but not to control them.

The above theory is intended to guide the study because NWSC has over the years attained exceptional performance under the stewardship of its current CEO who is required to efficaciously design the organisational structure and strategies with the Board's guidance. Conversely, the agency-principle theory focuses on the question; "how can shareholders (principle) ensure that managers (agent) pursue their interests?" (Allen and Dale, 2000:23). The agency-principle relationship is viewed as a contract under which one party (principal/shareholder) engages another party (agent/manager) to selflessly perform a service on their behalf (Jensen and Meckling 1976). This theory therefore views the Board as an internal mechanism that bears the necessary expertise, ability and incentives to fully and effectively monitor the agents' (management) activities to precisely ascertain that they behave in a satisfactory manner (Irge, Abdülkadir and Selim, 2011:125).

This theory makes mention of the Board's monitoring role which is precisely why it is intended to guide the current study.

2.3 Monitoring role of the Board and organizational performance.

The Cadbury report defines Corporate Governance as the system by which companies are directed and controlled (Cadbury Report, 1992:5). This definition evidently explains the structures and mechanisms put in place to monitor management activities and prevent improper or unlawful behavior (Meredith and Clough, 2005:1-4). It's for this very reason that the frequent occurrence of Corporate Governance scandals between 2000 and 2002 in the U.S caused people to question the Boards' monitoring role (Yang, Xue and Yurtoglu 2007:1). This monitoring role is developed by the agency theorists who argue that Boards are put in place to effectively supervise management activities on behalf of shareholders in order to foreclose the agency costs that would hinder good firm performance (Hillman and Dalziel, 2003:383). It has however been noted that the monitoring role is not just about monitoring management but also includes activities such as; monitoring of any shareholder presumed to have an incentive to pursue private benefits, reviewing the effectiveness of internal risk management systems and regularly evaluating the Board and its directors (Berghe and Baelden, 2005:689).

In supplement of the above, Nicholson and Kiel, (2004:6-7) affirm that a Board will effectively execute the monitoring role only in the existence of an independent NED. Lawal,(2012:24-25) contends that the independent outside directors will definitely execute the monitoring role as it brings to bear the much needed neutrality and objectivity in Board affairs which the insider dominated Board may overlook hence providing incompatible monitoring activities for itself.

In support of the above view, Renée et al, (2010) undertook a survey of literature on BODs which mainly focused on two questions most asked about Boards; what determines their makeup and what determines their actions? They believed that corporate governance is the role of the BOD and that its makeup ultimately affects their actions which in turn influence their desire to do what they do. It was found that the empirical analysis clearly points to a link between composition of the Board and its monitoring function.

In a similar review of more than 160 empirical studies in the US and Canada, Yiching Lai (2014) posed a question; “are independent directors effective corporate monitors?” the empirical evidence depicted that Boards with the majority as independent directors, in some circumstances, enhance firm performance and effectively fulfill certain monitoring tasks in the United States, but has not been shown to be related to improved firm performance in Canada. Although research to date suggests that independent directors in the United States perform better than those in Canada, it was noted that they seem not to play the kind of effective role as corporate monitors that North American laws, policy and courts rely on them to perform. Nevertheless, it was concluded that effectiveness of independent directors in management monitoring/oversight varies with the types of their tasks, differs from firm to firm, and depends on the characteristics of independent directors, the firm’s governance environment, as well as the success of other governance mechanisms. The empirical evidence generally depicted that independent directors in North America are not as effective in monitoring management as conventional wisdom dictates.

From a regional perspective, Miring and Muoria (2011) conducted a study to examine how Corporate Governance affects performance in Commercial State Corporations (CSC) in Kenya. It was noted that the primary role of the Board was to monitor management and influence firm performance on behalf of shareholders. They argued that Board attributes such as; Board

composition and Board size had a positive impact on its monitoring role. The findings indicated that most CSC Boards that were reported to perform well had more than a third of their composition as Non-Executive Directors who were noted to have freely and courageously exercised their monitoring role consequently resulting in the betterment of firm performance.

Tumusiime, (2015) argues that weak Corporate Governance in Uganda can possibly be rectified when Boards clearly understand their oversight/monitoring role. Similarly, the ICGU has time and again urged Boards to monitor the performance of company's executive management in order to enhance organisational performance (ICGU, 2008). The Education Act, 2008 as well places the Governing Board at center stage of an organization and is therefore expected to monitor managerial performance.

Mugisha, (2006) conducted a study on performance assessment and monitoring of water Infrastructure in developing countries but focused the study on NWSC in Uganda. This followed the notion; "if you cannot watch it, forget it!" he argues that a credible monitoring and evaluation mechanism puts pressure on the operating utility to improve performance. He further argues that the utility must be aware that its performance is being watched and something will be done about it. Therefore, the utility must know that a "bite" will strike in case of non-compliance and a "carrot" will appear in cases of target achievement. It was found that the performance improvement programmes in NWSC demonstrated that public organizations can deliver adequate performance if well managed and monitored. However, he credited the Board for participating in the initiatives to improve NWSC's performance.

2.4 Service role of the Board and organizational performance.

The service role of the Board stems from a resource dependence view which suggests that a Board's provision of resources is directly related to firm performance because "when an organization appoints an individual to a Board, it expects the individual will come to support the organization, will concern himself with its problems, will variably present it to others and will try to aid it" (Hillman and Dalziel, 2003:385-386). Therefore, an organization evidently hopes that the Board will facilitate the generation of important external resources critical to its survival (Babić et.al, 2011:143).

From a global perspective, a study was conducted in Belgium to identify which of the two Board roles; service and control was perceived as more important in firm performance. The findings indicated that small and medium family firm CEOs perceived the service role as more important than the control role because their Boards were observed to be an intellectual and reputational resource, generating important external resources through networking and maintaining relations as well as providing advice to management when needed. (Heuvel et al, 2005)

In another study conducted to examine Board roles, independence and their impacts on firms' performance in Nigeria, it was found that a Board which consists of a significant proportion of independent directors is healthy and more likely to exercise its service role because of their enormous access to external information and resources which would not be the case for internal directors (Tela, Ahmadu and Monguno 2015). In supplement of the above, Ogbechie (2012:65) affirms that the service role of the BOD is seen as one of its main functions which consists of providing the CEO and his top management team with expert counsel and access to information

and resources. To effectively carry out its service role, he goes on to urge Boards to be privy to the firm's affairs and to have access to regular, timely, and quality information about its dealings.

From the Ugandan perspective, Katera (2003) conducted a study on the relationship between transparency, accountability, fairness and firm performance. He noted that the roles of the Board included; establishing a vision, mission and values, setting strategy, monitoring management, exercising accountability to responsible shareholders and stakeholders and providing advice and counsel to the CEO and the entire management team. He found that lack of sound Corporate Governance practices such as; transparency, accountability and fairness had partly led to organizational failures in the Ugandan economy. He therefore believes that the Board's contribution to firm performance can be obtained through exercising the above mentioned roles while urging/advising management to observe transparency, accountability and fairness.

2.5 Strategic role and organizational performance

Governance is not just about rules, regulations, accountability, structures and frameworks but also about institutional attitudes, leadership, values and behaviors. (McGregor 2007 as cited in Nevondwe et.al, 2014:263). In any organization, good governance is ultimately about effective leadership that provides it with direction. Leadership is essentially making happen what wouldn't happen anyway, working at the edge of what is acceptable, having a vision and current reality, identifying real strengths and weaknesses, and determining present capacity without relying on illusions (Mokoena, 2005:40-41). Therefore Boards and management of SOEs are required to exercise effective leadership by participating in the strategic decision making process, appointing the CEO, ensuring that an effective succession plan for all directors and key executives is in

place while observing full accountability procedures to the stakeholders (Nevondwe et al, 2014: 285-286).

In a qualitative study conducted in Italy, it was noted that the US Boards of directors had been rather passive in the wake of corporate failures and more strategic involvement was necessary to restore public confidence and firm performance. The study revealed that contribution of Boards to strategy has rapidly developed and that an increase in directors' awareness of their strategic function was important for proficient firm performance. In addition, a call for an adequate Board composition, structure and well-organized internal process designed to allow all members of the Board to contribute to strategic decision making in an organization was put forward which would consequently contribute to firm performance (Pugliese et al, 2009).

Isiaka, (2012) also conducted a study in Nigeria to examine the management problems in parastatal organizations and why they were not performing as expected. He argued that parastatals are ultimately accountable to the government and general public through their BOD. In this study, it was discovered that one of the reasons for parastatal failure was that the Board was not given freedom to make strategic decisions for the organization. In other words, the Board was not viewed as the final authority in the parastatal for example, once a Board agreed that a proposal was worthy of financing, it would have had to table the proposal for approval by government which limited its ability to undertake its strategic role in organisational performance. Isiaka thus suggests that in order to solve management problems that occur in parastatals and enhance organizational performance, it was necessary for the government to abide by the edicts and laws in giving full authority to the Board to undertake its strategic role.

In view of the above, Armeane, (1998) as cited by Babaita,(2012:35) was right when he argued that one of the major reasons for poor performance of public enterprises in many developing

countries was that the Board had no political and managerial autonomy to effectively contribute to its strategic role. He further attributed the success of Ugandan parastatals to the Boards' freedom to make strategic decisions for these organizations.

2.6 Empirical studies

Said, Hidayat and Atan, (2015) conducted a study to assess accountability in Government Linked Companies (GLC) in Malaysia where corporate Governance has become a topic of increasing interest due to its Enron-like scandals. They referred to GLCs as companies that have a commercial objective but are subject to direct control by the Malaysian government. They noted that accountability among the Board, management and shareholders ultimately affected firm performance. Going forward, it was affirmed that Board effectiveness, internal control practices and leadership quality had an impact on accountability. They further argue that in order to assess board effectiveness, there is need to understand Board roles in form of; monitoring management activities (control role), provide advice and links to external resources (service role) and set the overall corporate strategy (strategic role). They also argue that strong internal mechanisms would deter, detect and prevent fraud and corruption in these companies and that a good leadership quality played an important role in making sure that the organization achieves its business objectives. The study intended to address three hypotheses namely; H₁-there is a significant relationship between Board effectiveness and accountability, H₂- there is a significant relationship between internal control mechanisms and accountability and, H₃- there is a significant relationship between leadership qualities and accountability. With a sample of 102 GLCs, it was found that there was a significant relationship between Board effectiveness and accountability because the Board played an important role in conducting organisational activities

and monitoring performance to effectively meet stakeholder needs. In addition, both internal control practices and leadership qualities had a significant relationship with accountability.

Although the study clearly takes into account the importance of Board roles in accountability which consequently affect firm performance, it puts its focus on three different aspects; Board effectiveness, internal control practices and leadership qualities. However, the findings of the study are biased to Malaysia, a developed economy and can't therefore be extrapolated to fit into a developing country's narrative. Therefore, the current study hopes to undertake a more specific study to examine the relationship between Board roles namely; monitoring, service and strategic roles and performance of NWSC in Uganda.

From a regional perspective, Zvavahera and Ndoda, (2014) conducted a study to evaluate the impact of corporate governance and unethical behaviour on organizational performance at the Zimbabwe Broadcasting Corporation (ZBC), a government parastatal said to ignore the Corporate Governance framework. It was noted that the Board had left its responsibility to top management. The findings indicated that bad corporate governance and unethical behaviour had crippled the Parastatal and that ZBC had improper systems for checks and balances. It was detected that while top management was taking home hefty salaries, other employees had to go for months on end without salaries. It was noted however that in Zimbabwean Parastatals, salaries for CEOs and senior management are proposed by the Board, which then recommends to the responsible Minister for approval. However, it was also noted that senior management salaries in some cases were awarded by the Board without the Minister's approval and were not performance related. The study recommended a need to enhance good corporate governance practices putting into consideration that Board members need to be appointed on merit in order

to effectively exercise their roles in ensuring that management acts in the best interest of all stakeholders while observing the ethical principles.

Though the study makes mention of the importance of the Board in the performance of parastats, it falls short of specifying which Board roles need to be undertaken in order to effectively contribute to the performance of the parastatals. Therefore, the current study seeks to be more specific in zeroing in on the Board roles that would directly have an impact on performance of a parastatal in Uganda.

From a Ugandan perspective, Nkundabanyanga, Tauringana and Muhwezi (2012) conducted a study to examine the effect of Governing Boards on the performance of secondary schools. The study intended to examine whether Board role performance, finance committee role performance, Board size, frequency of board meetings and Board finance expertise have an effect on the perceived performance of the schools. They argued that the Board roles included; the service role (giving school management advice and support), the strategic role (setting the strategic direction of the school) and the monitoring role (monitoring the performance of schools and management). The study was conducted to address five hypotheses namely; H₁-Board role performance has an influence on the performance of Ugandan secondary schools, H₂ -Finance committee role performance has a positive influence on the performance of Ugandan secondary schools, H₃-board size has an influence on the performance of Ugandan secondary schools, H₄-board frequency of meetings has a positive influence on the performance of Ugandan secondary schools and H₅-the proportion of finance experts on the governing board influences performance of Ugandan secondary schools. From a population of 3,645 secondary schools in Uganda, sampled out were 841 but research was actually conducted in 271; 98 of which were in Kampala,

123 in Wakiso, and 50 in Mukono. The findings indicated that the relationship between Board role performance and schools' performance is the most significant which suggested that the more boards fulfilled their roles such as resource provision, service, monitoring and control, the better the performance of the school.

Clearly evidenced by the hypothesis, the study tries to comprehensively analyze Board roles and attributes. It is worth noting that its sample size was too big to definitively give an indication of how Board role performance actually affects secondary school performance in Uganda.

2.7 Synthesis of the literature review and gap analysis

According to the above scholarly reviews, the researcher contends that many authors have affirmed to the need for Corporate Governance in organizational performance. The above review of scholars across different environments depicts that Board roles have tended to be ambiguous across the world. However, while these scholars demonstrated a growing recognition of board involvement, it has been noted that only a few authors have attempted to examine the area of Board roles and performance particularly in government parastatals in Uganda. It is upon this background that the current researcher finds it necessary to examine the Board roles and performance at NWSC an exemplary government parastatal to fill the gaps in the current knowledge.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology that will be applied to collect data and examine the research problem namely; the research design, study population, determination of the sample size, sampling techniques and procedures, data collection methods, data collection instruments, pre-testing (validity and reliability), procedures of data collection, data analysis, measurement of variables, and ethical considerations.

3.2 Research design

The study will adopt a descriptive research design which will require the researcher to seek respondents' opinions on the relationship between Board roles and performance at NWSC. Sekaran, (2003:121) argues that descriptive studies are applied in order to ascertain and describe characteristics of the variables of interest.

The study will also apply the mixed research approach to overcome the limitations of using a single design. Amin,(2005:42-55) argues that “the qualitative research approach involves the promotion of a greater understanding of not just the way things are but also why they are the way they are while quantitative research approach involves the collection of numeric data in order to explain, predict and control the phenomenon of interest”. The above argument justifies the need for the researcher to employ a mixed research design in order to eliminate the limitations of using a single approach.

3.3 Study population

Burgess, (2001:4) defines a population as simply all the members of a group of interest. The study will be done at NWSC. The NWSC offices selected are; the Head office that is located on Jinja road and International Resource Center (IREC) that is located in Bugoloobi. These study sites were selected because they are responsible for large scale investments, asset management, operational support, performance monitoring, and research and development. Therefore, the study population comprises 170 respondents; (10) Board Members, (10) Top Managers, (150) Middle level Managers.

3.4 Determination of sample size.

Burgess, (2001:4) defines a sample as a sub-set of the population that is usually chosen because access to all members of the population is prohibitive in time, money and other resources. The sample size for this study will be determined using the Krejcie and Morgan table as illustrated below;

Table 2: Sampled research respondents

No	Respondents	Population size(<i>N</i>)	Sample size(<i>S</i>)
1	Board Members	10	10
2	Top Managers	10	10
3	Middle level Managers	150	108
Total		170	128

Key: *N* – Population Size, *S* – Recommended Sample Population (Krejcie and Morgan,1970) as cited in Kenya Projects Organization [KENPRO], (2012)

3.5 Sampling technique and procedure.

The study will apply both random and non-random sampling techniques.

3.5.1 Purposive sampling Technique

The purposive sampling technique will be employed in order to select; (10) Board Members and (10) Top managers. Teddlie and Fen Yu (2007:83) affirm that purposive sampling is typically designed to pick a small number of cases that will yield the most information about a particular phenomenon.

3.5.2 Simple random sampling technique

The study will also apply the simple random sampling technique to select (108) middle level managers whose views are significant for the effectiveness of the study. Kothari (2004:15) affirms that this type of sampling is also known as chance sampling or probability sampling where each and every item in the population has an equal chance of inclusion in the sample and each one of the possible samples, in case of finite universe, has the same probability of being selected.

3.6 Data collection methods

This study will use both quantitative and qualitative data collection methods. Quantitative data will be obtained through the survey method while qualitative data will be obtained from interview method and document review.

3.6.1 Survey Method

The survey method will be applied to rapidly collect data since it may not necessitate the researcher to be present when the questionnaires are being filled. This is however believed to be

useful for large populations when interviews would be impractical. However, Amin (2005) notes that sometimes surveys and questionnaires are not taken seriously leading participants to write anything to make it less time consuming. If the survey/questionnaire is very long most people decide to ignore it which would make it useless. This method will be used to capture information from the middle level managers.

3.6.2 Interview method.

Interviewing is a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents in order to explore their perspectives on a particular idea, program, or situation (Boyce and Neale, 2006:3). The study will employ interviews because it is an interactive method that attempts to build rapport with the potential participants and gives an opportunity to respondents to explicitly communicate their perspectives on the subject. In addition, it will enable the interviewer to read the interviewee's body language and facial expression while granting the chance to probe. This method will be used to capture information from the Board and Top management.

3.6.3 Document review method.

This will require the review of documents such as; journals, newspapers, reports and any other document that will provide insight into the subject matter. Mogalakwe, (2006:225) asserts that authenticity of the evidence for analysis is the fundamental criterion in any research and therefore, the researcher has a duty and a responsibility to ensure that the document consulted is genuine and has integrity.

3.7 Data collection instruments

The researcher will collect data using questionnaires, interview guide, and a document checklist in order to collect relevant data to proficiently answer the research questions and hypothesis.

3.8 Pre-testing (validity and reliability).

3.8.1 Validity of instruments

According to Carole and Almut (2008:2278), Validity is often defined as the extent to which an instrument measures what it purports to measure. Similarly Amin,(2005:285) affirms that a research instrument is valid if it measures what it's supposed to measure. The study will apply the content validity to measure the validity of the instruments. According to Amin (2005), content validity refers to the degree to which the test actually measures or is specifically related to the traits for which it was designed. The content validity is determined by expert judgment which requires experts in the area covered by the instrument to assess its content by reviewing the process being used in developing the instrument as well as the instrument itself and thereafter make judgment concerning how well items represent their intended content area. Therefore, the content validity ratio will be used to calculate the Content Validity Index using the formula;

$$CVI = \frac{\textit{Total Number of items declared valid}}{\textit{Total Number of items in the Instrument}}$$

For an instrument to be accepted as valid, this average index should be 0.7 or above. (Amin, 2005:288)

3.8.2 Reliability of instruments

Reliability addresses the replicability of results (Golafshani, 2003: 599). Weiner, (2007) defines reliability as the degree to which a measurement technique can be depended upon to secure consistent results upon repeated application. Amin,(2005:298) argues that internal consistency is a commonly used form of reliability. This study will use the Cronbach's coefficient alpha to measure the internal consistency. The instrument will be considered satisfactory if the alpha value is 0.7 and above (Cronbach, 1951: 297-332).

3.9 Procedure of data collection

The researcher will be required to get an introduction letter from the School of Business and Management of Uganda Technology and Management University (UTAMU) identifying the researcher as a student of UTAMU. The researcher will then present a letter to the desired organization seeking authorization to conduct the study. Upon acceptance, the researcher will be required to seek the respondents consent in conducting the study.

When designing questionnaires, the researcher will be required to include; a brief introduction, purpose of the study, request for the respondent's cooperation in conducting the study and an assurance of confidentiality of information given.

3.10 Data analysis

After quantitative data is collected it will be coded then transferred to Statistical Programs for Social Scientists (SPSS) for analysis and presentation. Quantitative analysis will involve the use of tables of frequencies and percentages as well as graphs. The research hypothesis 1-3 will be

verified using the Pearson correlation coefficient that is supported by Amin, (2005) as the best in verifying relationships.

On the other hand, Qualitative data will be analyzed on content i.e. some of the responses will be quoted in the study as revealed by the respondents without alterations. However, some of the information captured during face to face interviews will be coded and translated into simple, less technical and meaningful language.

3.11 Measurement of variables

The study variables will be measured using the Likert scale. The Likert scale statement is followed by the five category response continuum: Strongly agree, Agree, Undecided, Disagree, Strongly disagree. The respondent will be required to select the response that best describes his or her response to each statement. Likert scales are more flexible and can be constructed more easily than most other types of attitude scales (Amin,2005:265).

A standard Questionnaire on a five-point Likert scale will be used to get quantifiable primary data from individual respondents. Effort will be made to use the measures from previous studies where available. However, in cases where existing measurement scales are not available, questions will be drawn from a strong theoretical background. The independent variable will be measured by a total of 49 items; The Board's monitoring role will be measured by 16 items adapted from (Ogbechie, 2012). The Board's service role will be measured by 16 items adapted from (Farquhar, 2011). The Board's strategic role will be measured by 17 items adapted from (Farquhar, 2011) While the dependent variable will be measured by a total of 18 items

3.12 Ethical Considerations

The researcher will:

1. Seek authorization from the concerned parties at NWSC before conducting the study.
2. Collect data only after seeking the respondents consent and clearly stating the purpose of the study i.e. the researcher will first seek appointment with the respondent, explain the importance of the study and find out from the respondent whether he/she is ready to participate in the study. However, the researcher will try to establish rapport as much as possible.
3. Exclude respondents' identity in the final report i.e. respondents' identity will not be used in explaining information that would have been submitted during data collection.
4. Observe the confidentiality rule i.e. information given by the respondents will not be revealed to any other person outside the boundaries of this study and will not be used for any other purpose

REFERENCES

- Aine, K. (2015, August 02). NWSC Wins Another Prestigious Award. Chimp Reports
- Retrieved from <http://www.chimpreports.com/nwsc-wins-another-prestigious-award/>
- Allen. F., and Dale D. (2000): Corporate Governance and competition. In X.Vives (Eds.), -
Corporate Governance: Theoretical and empirical perspective. (1st ed., pp.23-78)
Cambridge UK: Cambridge University press
- Retrieved from <http://finance.wharton.upenn.edu/~allenf/download/Vita/corpgov.pdf>
- Amin, M. E. (2005). *Social Science Research: Conception, Methodology and Analysis*.
Kampala, KLA: Makerere University Printery
- Arnwine, D.L. (2002). Effective governance: The roles and responsibilities of Board members.
15(1), 19-22. Retrieved from
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1276331/pdf/bumc0015-0019.pdf>
- Babić, M., Nikolić, J.D., & Jelena, M. (2011). Re-thinking Board role performance,
Towards an Integrative model: 56 (190), 143.doi: 10.2298/EKA1190140B
- Berghe, L.A.A., & Baelden, T. (2004 October). *The Monitoring Role of the Board: One
approach does not fit all*. Paper presented at the 7th International Conference on
Corporate Governance and Board Leadership at the Centre for Board Effectiveness,
Henley Management College, England.
- Boyce, C., & Neale, P. (2006). *Conducting in-depth interviews: A Guide for Designing and*

- Conducting in-depth Interviews for Evaluation Input*, Watertown, USA: Pathfinder International.
- Burgess, T.F. (2001). *Guide to the Design of Questionnaires: A general introduction to the design of questionnaires for survey research*. United Kingdoms, UK: University of Leeds
- Cadbury Committee. (1992). *A Report on the committee on the financial aspects of Corporate Governance: 1992*. Retrieved from <http://www.ecgi.org/codes/documents/cadbury.pdf>
- Carole, L. K., & Almut G. W. (2008). Research Fundamentals: *Validity and reliability of Measurement instruments used in research*, 65, 2276-2283. doi: 10.2146/ajhp070364
- Chata, T. (2010). *An evaluation of the relationship between corporate governance and corporate Performance of public enterprises* (Unpublished Masters' Thesis). University of Namibia, Namibia.
- Cornforth, C., & Chambers, N. (2010). The role of Corporate Governance and Boards in Organisational performance. In K, Walshe., G. Harvey., & P. Jas. (Eds.), *Connecting Knowledge and Performance in Public Services* (1st ed., pp.99–127). Cambridge: Cambridge University Press.
- Cronbach, L.J. (1951). Coefficient alpha and the Internal Structure of tests; University of Illinois. *Psychometrika*, 16(3), 297-332.
- Delloite. (2015, September 28). *2015 Annual report*. Retrieved from

<http://www2.deloitte.com/content/dam/Deloitte/global/Documents/Risk/gx-gccg-directors-alert-2015.pdf>

Farquhar, S.S. (2011). *The Impact of Board processes on Board role performance and effectiveness* (Unpublished doctoral thesis). University of Wolverhampton, England.

Golafshani, N. (2003). *Understanding Reliability and Validity in Qualitative Research*: University Of Toronto, Toronto, Ontario, Canada. 8 (4), 597-607

Grant Thornton. (2010). *Corporate Governance An Overview – Around the Globe* (Grant Thornton report). Egypt: Youssef. M.T

Heath, J., & Norman, W. (2004). Stakeholder Theory, Corporate Governance and Public Management: What can the History of State-Run Enterprises Teach us in the Post-Enron era? *Journal of Business Ethics*, 53, 247–265. Retrieved from <http://homes.chass.utoronto.ca/~jheath/stcg+pm.pdf>

Heuvel, J., Gils, A., & Voordeckers, W. (2005). Board Roles in Small and Medium-Sized Family Businesses: *Performance and Importance*, 14(5), 1-34. Retrieved from <https://doclib.uhasselt.be/dspace/bitstream/1942/1528/1/Board%20Roles.pdf>

Hill, C.W., & Jones, T.M. (1992). Stakeholder-Agency Theory: *Journal of Management Studies*, 29(2), 132- 152. Retrieved from http://www.ensp.unl.pt/saboga/incentivos/texto_02.pdf

Hillman, A. I., & Dalziel, T. (2003). Boards of directors and firm performance: Integrating

Agency and resource dependence perspectives, *Academy of Management Review*, 28(3), 383-394

Hough, A. (2009). *How Nonprofit Boards monitor, judge and influence organisational performance* (Unpublished doctoral dissertation). Queensland University of Technology, Australia.

Institute of Corporate Governance of Uganda.(2008).*Incorporating Recommended Guidelines for Uganda* (1st ed.).Kampala, Uganda: United printers.

Institute of Directors Southern Africa. (2009). *King code of Governance Principles for South Africa (King III Report)*. South Africa: Engelbrecht. L.

International Corporate Governance Network (2005, July 8). *2005 Annual report*. Retrieved from http://www.ecgi.org/codes/documents/revised_principles_jul2005.pdf

Isiaka, S.B. (2012). Management problems in Government parastatals: The Kwara state experience. *Management Journal*, 2(1), 32-40. Retrieved from <https://unilorin.edu.ng/publications/Management%20Problems%20in%20Government%20Parastatals.pdf>

İrge,Ş., Abdülkadir, V., & Selim, A.(2011).Board composition and organizational performance: Environmental characteristics matter: *Journal of Global Strategic Management*, 10, 125-133
Retrieved from <http://www.isma.info/uploads/files/124-board-composition-and-organizational-performance-environmental-charateristics-matter.pdf>

Jahmani, Y., & Dowling, W. A. (2008). The Impact Of Sarbanes-Oxley Act: *Journal of Business & Economics Research* 6(10), 57-63. Retrieved from

<http://cluteinstitute.com/ojs/index.php/JBER/article/viewFile/2479/2525>

Jensen, M.C., & Meckling, W.H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure: *Journal of Financial Economics*, 3(4), 1-72. Retrieved from <http://www.sfu.ca/~wainwrig/Econ400/jensen-meckling.pdf>

Katera, J. (2003). Corporate Governance and business performance (Unpublished masters thesis). Makerere University, Kampala, Uganda.

Kenya Projects Organization. (2012). Sample Size Determination Using Krejcie and Morgan Table. Retrieved November 10, 2015, from <http://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table>

Kothari, C. R. (2004). Research methodology methods and techniques, New Delhi, India. New age international publishers.

Kunle, A. (2013). Board of directors and corporate governance in Nigeria. *International journal of business and finance Management research*, 1(3), 21-34. Retrieved from <http://www.bluepenjournals.org/ijbfmr/pdf/2013/october/aina.pdf>

Kyepa, T. (2013) Corporate Governance of State-Owned Extractive Companies: What Uganda

Can Learn From Norway. Retrieved from the South African Institute of International Affairs website: http://www.saiia.org.za/doc_view/172-corporate-governance-of-state-owned-extractive-companies-what-uganda-can-learn-from-norway

Lawal, B. (2012). Board Dynamics and Corporate Performance: Review of Literature, and Empirical Challenges. *International Journal of Economics and Finance*, 4(1), 22-28
doi:10.5539/ijef.v4n1p22

Matta, N., & Murphy, P. (2005, October). *When passionate leadership stimulates enduring change: A transformational capacity development anecdote from Uganda*. Capacity development briefs, no. 13. Washington, DC: World Bank. Retrieved from http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/03/07/000020439_20070307150349/Rendered/PDF/389090UG0CDBrief01301PUBLIC1.pdf

Meredith, E., & Clough, R. (2005). Corporate Governance ARC Project. Corporate governance and performance: An exploration of the connection in a Public Sector context. University of Canberra, Canberra, Australia.

Miring, A. N., & Muoria, E. T. (2011). An analysis of the effect of Corporate Governance on Performance of Commercial State Corporations in Kenya, *International Journal of Business and Public Management* 1(1): 36-41. Retrieved from <http://mku.ac.ke/journals/images/Vol1No1/An%20analysis%20of%20the%20effect%20of%20corporate%20Governance%20on%20performance%20of%20commercial%20state%20corporations%20in%20kenya888.pdf>

Mogalakwe, M.(2006). The Use of Documentary Research Methods in Social Research. African Sociological Review, 10(1),221-230.

Mokoena, L.D.(2005).*The Importance Of Corporate Ethics and Values: Building a Sustainable Strategy Model for Effective Implementation of Good Corporate Governance within a State-Owned Enterprise in South Africa*(Unpublished Master's thesis) University of South Africa, South Africa.

Mugisha, S. (2006).Performance Assessment and Monitoring of Water Infrastructure: An Empirical Case Study of Benchmarking in Uganda. Retrieved from http://warrington.ufl.edu/centers/purc/purcdocs/papers/0618_Mugisha_Performance_Assessment_and.pdf

Mugisha, S., & Berg,V.S.(2006). Turning Around Struggling State-Owned Enterprises in Developing Countries: The Case of NWSC-Uganda, Retrieved from http://warrington.ufl.edu/centers/purc/purcdocs/papers/0636_Mugisha_Turning_Around_Struggling.pdf

Muhairwe,W.T.(2011 October 26th). The Turnaround Account: Reforming the National Water and Sewerage Corporation. Presentation at the OECD Global Forum on environment, Paris, France. Retrieved from <http://www.oecd.org/environment/resources/49012637.pdf>.

Mutenyo, J. (2010).Emerging Challenges in Firm Management, a paper presented to graduate School students, Makerere University, Kampala

Mwanzia, B, M., & Wong.P.(2011). Corporate Governance Practices in Developing Countries:

The Case for Kenya, *International Journal of Business Administration*, 2(1), 14-22
doi:10.5430/ijba.v2n1p14

Nevondwe, L., Odeku, K.O., & Tshoose. C. I. (2014). Promoting the Application of Corporate

Governance in the South African Public Sector, *Journal of Social Sciences*, 40(2), 261-275 Retrieved from

[http://krepublishers.com/02-Journals/JSS/JSS-40-0-000-14-Web/JSS-40-2-14-Abst-PDF/JSS-40-2-261-14-1600-Odeku-K-O/JSS-40-2-261-14-1600-Odeku-K-O-Tx\[13\].pdf](http://krepublishers.com/02-Journals/JSS/JSS-40-0-000-14-Web/JSS-40-2-14-Abst-PDF/JSS-40-2-261-14-1600-Odeku-K-O/JSS-40-2-261-14-1600-Odeku-K-O-Tx[13].pdf)

Nkundabanyanga, S.K., Tauringana,V., & Muhwezi, M.(2012). *Governing Boards and perceived*

performance of secondary schools: Preliminary evidence from a developing country.

Uganda. Retrieved from

<http://eprints.bournemouth.ac.uk/22973/1/Governing%20Boards%20and%20performance%20of%20secondary%20schools.pdf>

Nicholson,G.J.,& Kiel.G.C.(2004). Break through Board performance: How to harness your

board's intellectual capital, *The International Journal of Business in Society*, 4(1), 5-23.

Retrieved from

<http://www.effectivegovernance.com.au/wp-content/uploads/2012/10/Nicholson-Kiel-2004-Breakthrough-board-performance.pdf>

Nicholson, G.J., & Newton, C. J. (2010). The role of the Board of Directors:

Perceptions of managerial elites, *Journal of Management and Organization*, 16(2), 201-218. Retrieved from <http://eprints.qut.edu.au/32497/1/c32497.pdf>.

OECD. (2015), *OECD Guidelines on Corporate Governance of State-Owned Enterprises, 2015 Edition*, OECD Publishing, Paris. doi: <http://dx.doi.org/10.1787/9789264244160-en>

Ogbechie, C.I.(2012). *Key determinants of effective Boards of Directors- evidence in Nigeria* (Doctoral dissertation). Brunel University, London, England.

Pugliese,A., Jan Bezemer,P., Zattoni,A., Huse,M., Van den Bosch,F., & Volberda,H.W.(2009)

Boards of Directors' Contribution to Strategy: A literature Review and Research Agenda. *Corporate Governance: An International Review*, 17(3): 292–306.doi: 10.1111/j.1467-8683.2009.00740.x.

Renée, B. A., Hermalin,B.E., & Weisbach,M.S.(2010).The Role of Boards of Directors in

Corporate Governance: *Journal of Economic Literature*, 48(1), 58–107. Retrieved from <http://u.osu.edu/weisbach.2/files/2015/01/AdamsHWJEL2010-2ff7jzc.pdf>

Said,J., Hidayah,N.J., & Atan, R.(2015). Assessing Accountability in Government Linked

Companies: An Empirical Evidence. *International Business Management* 9 (4): 460-469.doi: 10.3923/ibm.2015.460.469.

Sekaran, U. (2003). *Research methods for business: A Skill Building Approach*. Illinois, IL

Southern Illinois. Retrieved from

http://iaear.weebly.com/uploads/2/6/2/5/26257106/research_methods_entiree_book_uma_sekaram-pdf-130527124352-phpapp02.pdf

Solomon, J., & Solomon, A. (2004). *Corporate Governance and Accountability*. Chichester, West Sussex: John Wiley & Sons, Ltd.

Souster, R. (2012). *Corporate Governance: The Board of Directors and standing committees*. Retrieved from http://www.accaglobal.com/content/dam/acca/global/PDF-students/2012s/sa_oct12-f1fab_governance.pdf

Ssekanjako, E. (2012). *Corporate Governance and financial performance of organizations case study* (Unpublished Bachelor dissertation). Makerere University, Uganda.

Stone, M.M., & Ostrower, F. (2007). Acting in Public interest? Another look at research on Nonprofit Governance. *International Interdisciplinary Journal: Nonprofit and Voluntary Sector*, 36 (3), 416-438. doi: 10.1177/0899764006296049.

Strenger, C., Kleindiek, A., Schmelzle, L., & Volynets, A. (2012). *Key Corporate Governance issues in emerging markets: Theory and practical execution*. Leipzig, LPZ: Jahnallee

Teddle, C., & Fen Yu. (2007). *Mixed Methods Sampling: Journal of Mixed Methods Research: A Typology With Examples*, 77-99. doi: 10.1177/2345678906292430

Tela, M.U., Ahmadu, S., & Monguno, B. (2015). *Corporate Governance & the Role of Boards of Directors on Firm's Performance*. *International Journal of Ergonomics and Human*

- Factors,12(2),1-8. Retrieved from
http://africaresearchcorps.com/images/arc_journals/NRDA-2016--ijehf-12-1-1-Umar-Sule-and-Babagana-2015.pdf
- Tumuheki, J.(2007). *Towards Good Corporate Governance: An Analysis of Corporate Governance Reforms in Uganda* (Unpublished master's thesis). , University of Cape Town, South Africa.
- Tumusiime, E., M.(2015, February 26th). *Promoting and strengthening good corporate Governance in Uganda*. Speech presented at Gala Dinner of the Institute of Corporate Governance, Kampala, Uganda
- Water Aid. (2003, July 1). 2003 Annual Report. Retrieved from
<http://www.wateraid.org/~media/Publications/water-privatisation-uganda.pdf>
- Weiner, J. (2007). Measurement, lecture 7: Reliability and Validity Measures [lecture power point slides]. Retrieved from
http://ocw.jhsph.edu/courses/hsre/pdfs/hsre_lect7_weiner.pdf
- Yang, Q., Xue, Y., & Yurtoglu, B.B. (2007). *Does the Strategic Role and the Control Role of the Board of Directors Exist in Chinese Listed Companies?* (Project No. 07JC630057) and (Project No. 2008BJB018), Shanghai, China: Social Science of Educational Minister project and Shanghai Social Science.
- Yiching Lai, B. (2014). Are Independent Directors Effective Corporate Monitors?
(Unpublished Doctoral dissertation, University of Ottawa, Canada). Retrieved from
https://www.ruor.uottawa.ca/bitstream/10393/31018/1/Lai_Brian_2014_thesis.pdf

Zvavahera, P., & Ndoda, G.(2014). Corporate governance and ethical behaviour: The case of the Zimbabwe Broadcasting Corporation, *Journal of Academic and Business Ethics*, 9, 1-8. Retrieved from <http://www.aabri.com/manuscripts/141956.pdf>

SN...

APPENDICES

APPENDIX I: QUESTIONNAIRE

RESEARCH TITLE; BOARD ROLES AND PERFORMANCE AT NATIONAL WATER AND SEWERAGE CORPORATION

Dear Sir/Madam,

I am a student of School of Business and Management, Uganda Technology and Management University (UTAMU) - School of Business and Management of UTAMU. I am conducting a study on Board roles and performance at NWSC. This study is a requirement for the partial fulfillment of a Masters in Public Administration and Management (MPAM). The study is aimed at acquiring more knowledge and insight on how significant the Board is in performance the organization and will therefore broaden citizenry's understanding of how the Board is a significant facet in Governance of an organization.

Your co-operation is valuable for the success of this study. You are humbly requested to honestly answer the questions herein. However, I humbly request for your consent before I proceed to conduct the interview. All the information given in this questionnaire will remain confidential and will only be accessed by the academicians involved in supervising this study. However it is desirable but not required for you to disclose her/his name and position at the organization.

Your contribution in making this study a success is greatly appreciated.

Thank you

Jovianne Barbra Mugobyia.

SECTION A: BIO DATA

1. Date.....

2	SEX OF RESPONDENTS (Please tick besides the box)			
	Male		Female	

Please tick or circle the appropriate number;

3	AGE					
	25-31	32-38	39-45	36-52	53 -59	60 and above
	1	2	3	4	5	6

4	POSITION IN THE ORGANISATION			
	Board member	Top management	Middle level management	Others(specify)
	1	2	3	4

5	EDUCATION BACKGROUND			
	PhD	Masters	Bachelors	Others(specify)
	1	2	3	

6.	DURATION OF SERVICE AT NWSC						
	Less than 1-5yrs	6yrs-11	12-17yrs	18-23yrs	23-28yrs	29-34yrs	35yrs and above
	1	2	3	4	5	6	7

For the rest of the question, please tick or circle the number that best describes your opinion on the question using the scale below;

SCALE:

1	2	3	4	5
Strongly Disagree(SD)	Disagree (D)	Neutral(N)	Agree(A)	Strongly Agree(SA)

An explanation of the scale

1= strongly disagree (No, the statement does not describe our Board practices at all.)

2 = disagree (No, the statement does not describe our Board practices.)

3= neither disagree nor agree (I don't know.)

4 = agree (Yes, the statement describes our Board practices.)

5 = strongly agree (Yes, the statement perfectly describes our Board practices.)

SECTION B: MONITORING ROLE OF THE BOARD

This section is about how the Board exercises its monitoring role

No	Statement	SD	D	N	A	SA
Oversee management performance						
1.	Board members closely evaluate management actions.	1	2	3	4	5
2.	The Board monitors CEO behavior.	1	2	3	4	5
3.	The Board reviews management performance against delegated duties.	1	2	3	4	5
4.	Board members evaluate top management decision-making process	1	2	3	4	5
5.	Board members review managements integrity in business dealings	1	2	3	4	5
Monitor corporation's performance						
6.	The Board has an internal mechanism to evaluate firm performance	1	2	3	4	5
7.	The Board regularly reviews company performance against set policies	1	2	3	4	5
8.	The Board reviews corporation's performance against set objectives	1	2	3	4	5
9.	The Board reviews corporate performance against set values	1	2	3	4	5
10.	Board members review corporate performance against the strategic plan.	1	2	3	4	5
11.	The Board adequately benchmarks organisational performance against its peers.	1	2	3	4	5
Review financial performance						
12.	Board members monitor the integrity of financial reports	1	2	3	4	5
13.	The Board ascertains whether appropriate systems for financial planning are in place	1	2	3	4	5
14.	The Board regularly reviews major changes in financial policies/plans	1	2	3	4	5
15.	The Board regularly reviews the accounting records of the corporation	1	2	3	4	5
16.	Board members analyze the corporation annual budget allocation.	1	2	3	4	5

SECTION C: SERVICE ROLE OF THE BOARD

This section is about how the Board exercises its service role

No	Statement	SD	D	N	A	SA
Advise management						
1.	Board members contribute with advice on general management issues	1	2	3	4	5
2.	Board members contribute with advice on legal issues.	1	2	3	4	5
3.	Board members contribute with advice on financial issues (internal Financing and investment).	1	2	3	4	5
4.	Board members contribute with advice on technical issues	1	2	3	4	5
5.	Board members contribute with advice on marketing issues.	1	2	3	4	5
6.	Board members contribute with advice on organisational development issues	1	2	3	4	5
Balance Stakeholder interests						
7.	NWSC Board feels a moral responsibility to look after the interests of the Shareholders.	1	2	3	4	5
8.	NWSC Board pays serious attention to funders' interests	1	2	3	4	5
9.	NWSC Board pays serious attention to employee interests,	1	2	3	4	5
10.	NWSC Board pays serious attention to suppliers' interests,	1	2	3	4	5
11.	The Board pays serious attention to Corporate Social Responsibility (CSR) practices.	1	2	3	4	5
12.	The Board pays serious attention to customer interests	1	2	3	4	5
Facilitate access to resources						
13.	The Board often take advantage of the board members' networks to gather information for the organization	1	2	3	4	5
14.	Board members provide advice and expertise that help the company manage external Links	1	2	3	4	5
15.	Board members help to generate business for the firm	1	2	3	4	5
16.	Board members help to raise funds or other resources for the firm	1	2	3	4	5

SECTION C: STRATEGIC ROLE OF THE BOARD

This section is about how the Board exercises its strategic role

Corporate policies						
No.	Statement	SD	D	N	A	SA
1.	The Board determines corporate policies	1	2	3	4	5
2.	The Board reviews the implementation of policies	1	2	3	4	5
3.	The Board enforces corporate policies	1	2	3	4	5
4.	The Board scans the environment before determining major policies	1	2	3	4	5
5.	The Board adapts performance measures to monitor the implementation of policies.	1	2	3	4	5
Executive recruitment						
6.	Board members engage in succession planning for the CEO.	1	2	3	4	5
7.	The Board ensures proper succession for all directors and key executives	1	2	3	4	5
8.	Board members engage in succession planning for top managers besides the CEO.	1	2	3	4	5
9.	Board members select appropriate participants to fill up the top management positions	1	2	3	4	5
10.	Board members have procedures for recruiting new directors	1	2	3	4	5
Participate in strategy development						
11.	The Board is involved in making proposals on the company's long term Strategies and main goals.	1	2	3	4	5
12.	The Board is involved in making decisions on the company's long term Strategies.	1	2	3	4	5
13.	The Board is involved in putting decisions on the company's long term strategies into action	1	2	3	4	5
14.	The Board is involved in controlling the follow up of decisions on the Company's long-term strategies.	1	2	3	4	5
15.	Board members bring a variety of expertise and skills to the strategic-	1	2	3	4	5

	decision making process of the company					
16.	The Board determines plans designed to implement the corporate strategies	1	2	3	4	5
17.	The Board ensures that the firm structure is appropriate for implementing the chosen strategies.	1	2	3	4	5

SECTION D: PERFORMANCE AT NWSC

NO	Statement	SD	D	N	A	SA
Quality						
1.	All the staff have the skills required to effectively execute their duties	1	2	3	4	5
2.	NWSC staff have committed themselves to meeting the required standards	1	2	3	4	5
3.	NWSC staff are trained to acquire new knowledge and skills	1	2	3	4	5
4.	We commit to strong business ethics with our stakeholders	1	2	3	4	5
5.	We ensure that all investments obtain value for money	1	2	3	4	5

No.	Statement	SD	D	N	A	SA
Productivity						
6.	There is an increase of water production	1	2	3	4	5
7.	There is an increase in service coverage	1	2	3	4	5
8.	NWSC has constructed new water extensions to serve new customers	1	2	3	4	5
9.	There is an optimal use of staff to improve operations	1	2	3	4	5
10.	NWSC staff all have the ability to yield positive results	1	2	3	4	5
11.	We are highly capable of meeting stakeholders' expectations.	1	2	3	4	5
12.	NWSC staff have a high level of creativity and innovativeness in the production process					

No.	Statement	SD	D	N	A	SA
Efficiency						
13.	We ensure accountability for all utilized resources	1	2	3	4	5
14.	We complete our work within set targets	1	2	3	4	5
15.	We ensure that outcome of investments is effective and that there is minimum waste and expense	1	2	3	4	4
16.	There is no waste of time and effort in performing our duties	1	2	3	4	5
17.	NWSC staff quickly responds to requests for service.	1	2	3	4	5
18.	There is timely response to customers and clients' needs	1	2	3	4	5

E1. How would you rate the current organizational performance? Please tick the number that best describes your opinion.

(1=excellent, 2=very good, 3= good, 4= fair, 5= poor, 6= very poor, 7= extremely poor)

1	2	3	4	5	6	7

E3) what is your comment on the Board's contribution to the current organizational performance?

.....

Thank you very much for your cooperation

END

SN:.....

APPENDIX II: INTERVIEW GUIDE

BOARD ROLES AND ORGANIZATIONAL PERFORMANCE AT NATIONAL WATER AND SEWERAGE CORPORATION (NWSC) IN UGANDA

Date:.....

Job Title/Position:.....

Unit:.....

INTRODUCTION;

The purpose of the interview is to gather views about how the roles of the Board have affected the performance at the corporation

MONITORING ROLE OF THE BOARD

1. What mechanisms does the Board put in place to supervise management? (probe for specific mechanisms)
2. How does the Board evaluate the performance of the entire organization?
3. How does the Board review financial performance of the organization? (probe how often does the Board review financial performance of the organization)
4. In your opinion, is there a relationship between the monitoring role of the Board and performance at NWSC? (probe for this relationship and specifically, how it influence performance)

SERVICE ROLE OF THE BOARD

1. What advice does the Board give to management? (probe for how and when)
2. Please tell me, who are the corporations' stakeholders?
3. How does the Board ensure that each of their interests is met?
4. Does the Board facilitate access to external resources? (probe how)
5. Do you think that the service role of the Board influences performance at NWSC? (Probe how)

STRATEGIC ROLE OF THE BOARD

1. What is the Board's role in policy development? (probe what role and how)
2. Does the Board participate in executive recruitment? (probe how)
3. Does the Board usually participate in strategy development? (probe how)
4. Do you think that there is a relationship between the strategic role of the Board and performance at NWSC? (probe for what is this relationship)

Thank you very much for taking time to share with me your views

APPENDIX III: DOCUMENTARY CHECKLIST

My name is **Mugobyra Jovianne Barbara**, a student at the School of Business and Management, Uganda Technology and Management University (UTAMU). In partial fulfillment of the requirements a degree in Masters of Public administration and Management, I am required to conduct a study in my field of interest which is “Board roles and performance at NWSC in Uganda.”

The following list of documents has been prepared to provide data that will be analyzed for purely academic purposes and assist in making conclusions on the above stated topic. The information acquired from these documents will be handled with utmost confidentiality. Please provide the relevant data for the success of this study.

Required Documents;

- 1) Annual Reports 2014-2015

- 2) Any other reports relevant to the study.

APPENDIX IV: WORK PLAN AND TIME FRAME

No	Activity	Duration (days/weeks/months)	Dates
1	Proposal writing (pre-defense)	3 months	1 st July-October 2015
	Proposal defense		October 2015
	Proposal writing(post-defense)	4 months	November 2015- February2016
	Submission of proposal		March 2016
2	piloting questionnaire and adjusting	1 week	March 2016
4	Conducting field activity: <ul style="list-style-type: none"> • secondary data • Primary data 	1 month	March-April 2016
5	Organizing data collected	2 weeks	April – May 2016
6	Data input and Analysis	1 month	June 2016
7	Report writing and defending	1 month	July 2016
8	Submission		August 2016

**APPENDIX IV: KREJCIE & MORGAN'S TABLE FOR DETERMINING SAMPLE
SIZE**

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970