

**INFLUENCE OF ORGANIZATIONAL CULTURE ON
PERFORMANCE OF PUBLIC WATER COMPANIES IN
KENYA**

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**Influence of Organizational Culture on Performance of Public Water
Companies in Kenya**

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**A thesis submitted in fulfillment for the degree of Doctor of Philosophy
in Human Resource Management in the Jomo Kenyatta University of
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DECLARATION

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

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DEDICATION

This thesis is dedicated to my father Abraham Mahulu Misigo, my mother Grace Kageha, my spouse Martha, my children (Eglar, Mercy, Humphrey, Sylvia, Ryan and Nimrod) and my grandchildren.

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LIST OF ACRONYMS AND ABBREVIATIONS

ANOVA	Analysis of Variance
CEO	Chief Executive Officer
CIPD	Chartered Institute of Personnel and Development
CVF	Competing Values Framework
EEF	Engineering Employers' Federation (UK)
GDP	Gross Domestic Product
G.O.K	Government of Kenya
HRM	Human Resource Management
MDGs	Millennium Development Goals
NRW	Non-Revenue Water
OCAI	Organizational Culture Assessment Instrument
OCB	Organizational Citizenship Behaviour
OECD	Organization for Economic Co-operation and Development
SDGs	Sustainable Development Goals
SPSS	Statistical Package for Social Science
UK	United Kingdom
UN	United Nations
USA	United States of America
VIF	Variance Inflation Factor
WASREB	Water Services Regulatory Board
WS	Water Services

OPERATIONAL DEFINITION OF TERMS

- Adhocracy Culture:** A system of beliefs and values of development, inspiration, diversity, independence and attention to detail which inspires employees in an institution to demonstrate actions of ingenuity and flexibility (Cameron & Quinn, 2006).
- Clan Culture:** A system of beliefs and values of affection, membership, group effort, conviction and support which encourages employees in an institution to show deeds of collaboration and involvement (Cameron & Quinn, 2006).
- Corporate Social Responsibility:** It is the summation of benevolent measures carried out by an institution to attend to societal and ecological consequences of its activities and the apprehensions of persons or groups with direct interest, association or investment in a company (Christensen, Peirce, Hartman, Hoffman & Carrier, 2007).
- Dynamic Capabilities:** It is defined as a firm's behavioural orientation constantly to integrate, reconfigure, renew and recreate its resources and capabilities and, most importantly, to upgrade and reconstruct its core capabilities in response to the changing environment to attain and sustain competitive advantage (Wang & Ahmed, 2007).
- Employee Satisfaction:** It is defined as a global feeling about one's work or a related cluster of attitudes about various facets of the work environment (Lu, While & Barriball, 2005).

Hierarchy Culture:	It is a system of beliefs and values of communication, formalization and consistency which motivates employees in an institution to exhibit behaviours of conformity and predictability (Cameron & Quinn, 2006).
Homoscedasticity:	The conjecture of homoscedasticity refers to equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This means that researchers assume that errors are spread out consistently between the variables (Keith, 2006).
Isomorphism:	It refers to a constraining procedure that compels organizations to integrate patterns that are deemed justifiable for a definite environment, resulting in improved internal and external commitment (DiMaggio & Powell, 1991; Meyer & Rowan, 1991).
Leadership:	Is the capacity to inspire individuals to give their best to achieve a desired result and to maintain effective relationships with other individuals and the team as a whole (Armstrong & Taylor, 2014).
Market Culture:	A system of beliefs and values of capability and realization of planned objectives which encourages employees in an institution to demonstrate deeds of obtaining customer information, setting of challenging and achievable goals and emphasis on productivity (Cameron & Quinn, 2006).
Moderating Variable:	A moderating variable, also called a moderator variable is a qualitative or quantitative variable that has influence on

the potency and/or trend of the association involving the dependent and independent variables (Aguinis, Edwards & Bradley, 2017).

Non-Revenue Water:

Non-Revenue Water refers to the difference between the amount of water produced for delivery and the amount of water billed to customers (Water Services Regulatory Board, 2016).

Organizational Culture:

Organizational culture refers to the suppositions, convictions, ethics and behavioural expectations shared within organizations that help in shaping employee behaviour (Schein, 2011).

Organizational Performance:

Performance of an organization means the capacity of a business to accomplish its objectives by making effective use of resources available to it (Wokoma & Iheriohanma, 2010).

Sustainable Development Goals:

Sustainable Development Goals otherwise known as the Global Goals are an intergovernmental set of quantified and time-bound aspiration goals for dramatically improving the human condition by 2030. The Goals are contained in paragraph 54 United Nations Resolution A/RES/70/1 of 25th September 2015. The 17 Sustainable Development Goals and 169 targets came into effect on 1st January 2016 (Beisheim, 2015).

Water Service Provider:

Water Service Provider refers to a company, non-governmental organization or other person or body providing water services under and in accordance with an

agreement with the licensees within whose limits of supply the services are provided (The Water Act, 2016).

Water Services:

Means any services of or incidental to the supply or storage of water and includes the provision of sewerage services (The Water Act, 2016).

ABSTRACT

Organizational culture has an influence on nearly all facets of an organization's performance, particularly in respect of people and their interaction. Culture in an organization determines the demeanour of employees and the manner in which they interact internally and externally. It also determines several aspects of employee treatment and their relationships. Cohesive organizational culture underpins higher productivity, improves employee morale, affects work attitudes and encourages employee dedication. Organizational culture also constraints and directs management behaviour which affects firm performance through decision making process and formulation of strategy and its implementation. The objective of this study was to investigate the influence of organizational culture on performance of public water companies in Kenya. The study was based on the Cameron and Quinn's competing values framework for evaluation of an organization's culture. The variables investigated pertaining to organizational culture were; clan type of culture, adhocracy type of culture, market type of culture and hierarchy type of culture and their influence on performance of the water companies. The moderating influence of leadership values on the relationship between organizational culture and performance of the water companies was also investigated. The study used descriptive and correlational research designs with a population of 84 public water companies. A statistical sample of 17 water companies was selected with 185 respondents. 126 responses were received, giving a response rate of 68%. Primary data was collected using questionnaires while secondary data was obtained from the relevant published documents of the water companies. The study espoused Cameron and Quinn's organizational culture assessment instrument questionnaire as one of the data collection instruments. It was customized to incorporate questions on leadership values based on the portrait values questionnaire as proposed by Schwartz. Data collected was sorted and analyzed using descriptive, diagnostic and inferential analyses. Statistical Package for Social Sciences Version 23.0 was used for data analysis and generation of tables, figures and relationships. Inferential statistics including correlation, analysis of variance and multiple linear regression models were used to establish the association involving the independent and dependent variables. Results of the study show that organizational culture has an influence on performance of public water companies in Kenya. The study also found that leadership values have a moderating effect on the relationship involving organizational culture and performance of the water companies. The study findings recommend the necessity of leaders of public water companies in Kenya to manage culture in order to achieve sustainable improvement in the provision of water services and, hence improved performance. Future researchers may consider introducing different moderating variables other than leadership values in testing the moderating effect on the influence of organizational culture on performance of public water companies and other public organizations in Kenya.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

This chapter covers background of the study (global, regional and local viewpoints of organizational culture on performance plus an outline of water companies in Kenya). It also covers statement of the problem, objectives of the study (general and specific), research hypotheses, justification of the study in respect of various stakeholders, scope of the study and limitations of the study.

Organizations currently operate in an environment characterized by phenomenal global changes in the business environment (Schein, 2011). This has been attributed to among other factors, changing customer demands, rapid technical changes, and the rise of a global, knowledge-based economy (Im, Montoya & Workman, 2012). Due these changes and the complexity of the business environment, organizations are ever exploring ways to be more creative so as to continuously achieve high productivity. Organizational culture has been distinguished as one of the aspects that affect organizational performance (Duke II & Edet, 2012). In the prevailing era of globalization, organizational success not only depends on efficient utilization of resources and broad vision strategies but also on strong organizational culture in order to achieve real organizational success and glory (Schein, 2011).

Organizational culture serves as a vehicle of organizational influence on an individual's identity and behaviour by socializing individuals into specific norms and patterns of behaviour (Parker, 2000). It affects employee behaviour, learning and development (Bollinger & Smith, 2001), creativity and innovation (Martins & Terblanche, 2003) and knowledge management (Tseng, 2010). Cameron and Quinn (2011) argue that organizational culture has a strong association with an organization's sense of uniqueness, its values, mission, aims, goals and ways of building shared values. Many scholars (for example, Cameron & Quinn, 2011; Irefin & Mechanic, 2014; Nikpour, 2017) in organizational studies have asserted that when an organization has strong a culture and analogy, it is more successful than when it has a weak, incongruent, and disconnected culture (Ali, Said, Abdullah & Daud, 2017). Kotter and Heskett (1992) found that organizational culture has a considerable positive impact on a firm's continuing performance. They further established that companies with cultures that emphasized all the key managerial constituencies (customers, stockholders, and employees)

and leadership from managers at all levels, outperformed companies that did not have those cultural traits by a huge margin.

Theoretical arguments support the idea that organizational culture is related to organizational performance (Cameron & Quinn, 2006; Zheng, Yang & McLean, 2010). There is also empirical evidence regarding organizational culture-performance relationship (Duke II & Edet, 2012; Ogbonna & Haris, 2000). Research further shows that if employees are guided by the same norms and values in their organizations, their performance and ultimately organizational performance would improve (Hofstede, 2001). This relationship is based on the observation that organizational culture is a significant factor affecting organizational success or failure (Sawner, 2000). It is frequently held accountable for organizational ills and, on occasions, praised for creating positive qualities (Shani & Lau, 2008). Therefore, understanding the inference of organizational culture is a crucial task for leaders because of its great impact on different features of organizational activities and performance. Paying no attention to organizational culture in plans for any changes within an organization may yield unforeseen and negative consequences (Cameron & Quinn, 2011).

1.1.1 Global Perspective of Influence of Organizational Culture on Performance

A rising number of researchers have centred their attention on researches focused on figuring out the effect of an organization's culture on its performance. The subject matter of organizational culture attracted a lot of attention in the late 1980's and early 1990's as management scholars investigated the reasons behind the failure of USA organizations in competing with their Japanese counterparts (Ojo, 2010). One of the earliest quantitative studies on the culture-performance link was conducted by Denison (1984) who used data from 34 American (USA) companies over a five year period. The author studied features of organizational culture in these companies and tracked their performance over time. Organizational culture was used to explain the economic successes of Japanese companies over American companies by motivating workers who were committed to a common set of core values, viewpoints and conjectures (Denison, 1984).

Ogbonna and Harris (2000) studied the association involving organizational culture and performance by including leadership style as a third variable in the model. They used a sample of 1000 units from the Financial Analysis Made Easy database of registered British companies. To measure performance, they used variables such as: customer satisfaction, sales

growth, market share, competitive advantage and sales volume. For organizational culture, they used measures such as: competitive (market) culture, innovative (adhocracy) culture, bureaucratic (hierarchy) culture and community (clan) culture. The results showed that all four assessments of organizational culture were linked in some way to corporate performance (Ali *et al.*, 2017).

A study in China by Garg and Ma (2005) investigated the effect of cultural differences on organizational performance in three types of organizations, namely; foreign-owned, joint ventures and Chinese-owned and operated. The results revealed that the three types of organizations differed in their culture and performance. The performance of foreign-owned and operated companies was significantly better than their joint venture and Chinese-owned and operated organizations. The authors attributed this to teamwork, accountability and efficient management style that concentrated mainly on individualism, as well as, the more efforts that were given to promote certainty and stability, the low variation between power structures, and the high masculinity that was employed to have a further assertive management style. On the contrary, the Chinese-owned and operated organizations seemed to converge on the autocratic management style that lacks teamwork. This was likely to result in high variation and low communication between the senior management and its employees, as well as, a high sense of uncertainty in the management style.

1.1.2 Regional Perspective of Influence of Organizational Culture on Performance

Studies on organizational behaviour have made significant progress in globalizing its reach and being more inclusive of organizations in non-Western developing economies in the last two decades (Hoskisson, Wright, Filatotchev & Peng, 2013). While the geographic bias in favour of covering Western developed economies is being gradually reduced, studies on organizational culture and performance in Africa still remain scarce (Jackson, 2004; Zoogah, Peng & Woldu, 2015). African context influences performance of companies in Africa in a manner that is dissimilar from other contexts particularly the Western one (Michalopoulos & Papaioannou, 2013). Context is key because it links observations to a set of relevant facts, events, or points of view that make possible research and theory that form part of a larger whole (Fried & Rousseau, 2001).

Beatrice (2014) undertook a study to examine the consequence of organizational culture on performance of organizations in the public health sector: The case of Ocean Road Cancer

Institute, Tanzania. The major finding of the study revealed that task organization factors such as encouraging employees to make decisions, assignment of clear duties and responsibilities, opportunity to pursue interesting and challenging work have affirmative effect on performance of organizations.

Kamugisha (2013) undertook research to study the effect of change management in an organization and specially the case of the National University of Rwanda. The main objective of this study was to analyze the effect of change management on organizational culture at the National University of Rwanda. The data collected from questionnaires and secondary sources was summarized according to the study themes; being change management and its effects on organizational structure, culture and leadership. Results of the study revealed that the main challenge facing the management of the institution was strong resistance from the staff due to the prevailing organizational culture in the University. Results further revealed that the influence of culture was an impediment to organizational performance since it affected a lot the implementation of performance contracting in the institution.

Nakiyaga and Anh (2017) undertook a study to investigate how organizational culture affects internal control effectiveness: the role played by top management - case study: Uganda Revenue Authority. The rationale for the investigation was to study the role played by company executives towards aligning effective internal controls, particularly for organizations operating in emerging economies prone to corruption. The study considered the role of company executives from the point of view of the firm's culture. The study concluded that managers play an influential role towards aligning organization's culture to achieve the desired internal control objectives.

1.1.3 Local Perspective of Influence of Organizational Culture on Performance

Kenya aspires to become a nation offering high quality of life to all its citizens by the year 2030. Attainment of this vision hinges on the degree to which the nation is able to create an adaptive human capital base to meet the requirements of a rapidly industrializing economy. However, according to the Vision 2030, delivery of public services in Kenya is still characterized by a culture rooted in poor understanding of the fundamental policy of the public service, namely to serve rather than dictate to citizens. To address this challenge, the Government has come up with a strategy of involving citizens more in determining policies and priorities so as to bring a change in values and ethics throughout the public service. This

strategy is also intended to improve transparency and accountability in public service, which is critical for achieving the Vision 2030's goals.

1.1.4 Public Water Companies in Kenya

Drinkable water is considered vital for human development so much so that in September 2015, the UN General Assembly adopted a resolution recognizing safe drinking water as a human right. In 2010, Kenya ratified a new constitution identifying water as a fundamental human right. This recognition underscores Kenya's commitment to improving the standard of living and the quality of life of her citizens through gradual realization of sustainable access to safe, reliable and affordable water supply as envisaged in the Vision 2030.

The responsibility for the provision of water services as per the Water Act, 2016 is vested in water companies or water service providers that operate as licensees of the Water Services Regulatory Board (WASREB). These water companies are wholly owned by County Governments given that the provision of water services is a devolved function as per the Constitution of Kenya. Public water companies which are non-profit oriented organizations are therefore the main institutions that are mandated to facilitate appropriate and efficient service delivery to customers. According to WASREB (2016), eighty four (84) public water companies owned by the County Governments in Kenya are licensed to operate and serve customers within their predefined service areas. A number of studies done locally indicate that public water utilities in Kenya are viewed as one of the elements that have abundant potential to expedite socio-economic growth and development of the nation (Kamali, Musiega & Mbithi, 2015; Nyangena, 2008; Onsomu, Bichanga, Munene & Obonyo, 2013).

According to the service sector value chain model by Heintzman and Marson (2005), drivers of performance are: citizen/client service satisfaction, citizen trust and confidence in public institutions. The model underscores the fact that, for public institutions to bring about public trust and confidence; internal drivers such as organizational culture and motivation need to be given priority for improved organizational performance to be realized (CIPD & EEF, 2003) and hence the necessity for this study on licensed public water companies in Kenya.

Kenya has a unique socio-economic development strategy anchored on the Constitution, the Vision 2030 and the Sustainable Development Goals (SDGs) whereby the provision of affordable and safe water in adequate quantities is a very important national transformation

milestone. According to a survey undertaken by WASREB (2016), the average water coverage in urban and rural areas is at 55%. The trend in coverage has been growing very slowly in spite of increased funding and there is possibility of the sector not achieving the 2030 target of universal coverage. The necessity for improved organizational performance among public water utilities in Kenya is driven by the fact that water companies have faced a number of challenges including poor service delivery and revenue collection inefficiency (Briceño-Garmendia & Shkaratan, 2011; Macharia, Mbassana & Oduor, 2015).

1.2 Statement of the Problem

Kenya aspires to become a middle-income nation by achieving an average annual GDP growth rate of 10% under the Vision 2030 Development Agenda. Satisfactory water services (WS) are critical in poverty reduction because their inadequacy results in public health risks whose impact is damage to the well-being of citizens, low productivity and increase in living costs (WASREB, 2016). If WS are well managed, they can contribute significantly to the country's socio-economic growth. Although the Government of Kenya has been undertaking a sequence of reforms aimed at enhancing efficiency in service delivery, access to sufficient water supply still remains a challenge (The Water Act, 2016). Public water companies, whose responsibility is to provide WS, seem to be underperforming as per their mandate yet they provide essential service. No sector can survive without water services. This inefficiency is believed to be caused by, among other factors, disengaged employees, lack of accountability, corruption and inability to attract and retain skilled manpower (Robbins, 2001; WASREB, 2016).

Poor performance by public water companies has led to a number of deficiencies which include, low number of water connections, illegal connections, decline in hours of supply, high levels of non-revenue water (NRW), high percentage of dormant connections, low revenue collection efficiency, weak financial status and customers' unwillingness to pay reflecting their dissatisfaction with the quality of services provided (WASREB, 2016). High levels of NRW, for instance, are detrimental to financial sustainability and commercial viability of water companies, as well to the quality of water supply. They also represent revenue losses for the water companies whose costs are passed on to already overburdened customers.

Cameron and Quinn (1999) found that organizations with higher levels of clan, adhocracy, market and hierarchy types of organizational culture were more effective in achieving their goals. This study investigated clan, adhocracy, market and hierarchy cultures as sub-variables under organizational culture given that no study has linked them to performance of water organisations in Kenya. Leadership values was adopted as the moderating variable because previous studies examining leaders' personal values have found that values can be used to explain differences in organizational outcomes (Schwartz, 1992). The distinct characteristics of public water companies make organizational culture an important area of concern for this sector, particularly as organizational culture has the potential to affect employees' behaviour and consequently individual and organizational performance to a conspicuous extent. It also plays an important role in internal control and deterrence of undesirable behaviour (Hosseini, 2014).

Numerous studies have revealed a positive association involving organizational culture and performance. However, most of these studies have been conducted in developed countries and very few in developing countries, Kenya included (Davidson, 2003; Farashahi, Hafso & Molz, 2005) and especially in the water sector. This view is validated by a number of researchers (Ahmad, 2012; Ali *et al.*, 2017; Mousavi, Hosseini & Hassanpour, 2015; Zakari, Poku & Ansah, 2013) who have observed the necessity for empirical research in developing countries on the premise that their work environment is different from that of the Western World. Even though a number of studies have been conducted in Kenya (Misigo & Moronge, 2017; Ng'etich, 2015; Njiru, 2016) on public water companies, none has tackled the effect of organizational culture on performance of the companies. Due to this insufficiency of information, the study sought to examine the influence of organizational culture on performance of public water companies in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of this study was to determine the influence of organizational culture on performance of public water companies in Kenya.

1.3.2 Specific Objectives

Specifically, this study sought to achieve the following objectives:

- i. To determine the influence of clan culture on performance of public water companies in Kenya.
- ii. To examine the influence of adhocracy culture on performance of public water companies in Kenya.
- iii. To establish the influence of market culture on performance of public water companies in Kenya.
- iv. To investigate the influence of hierarchy culture on performance of public water companies in Kenya.
- v. To establish the moderating effect of leadership values on the relationship between organizational culture and performance of public water companies in Kenya.

1.4 Research Hypotheses

A research hypothesis is an extrapolative statement that relates an independent variable to some dependent variable (Wilcox, 2009). Hypotheses are important for bringing focus, specificity and clarity to a research study. This study sought to achieve the research objectives by testing the following research hypotheses:

- i. H_{1a}: There is significant influence of clan culture on performance public water companies in Kenya.
- ii. H_{1b}: There is significant influence of adhocracy culture on performance of public water companies in Kenya.
- iii. H_{1c}: There is significant influence of market culture on performance of public water companies in Kenya.
- iv. H_{1d}: There is significant influence of hierarchy culture on performance of public water companies in Kenya.
- v. H_{1e}: Leadership values have significant moderating effect on the relationship between organizational culture and performance of public water companies in Kenya.

1.5 Significance of the Study

Every organization wants to be successful and has a desire to achieve continuous and sustainable improvement. One of the dynamic paths usually used to achieve improvement in performance and the quality of work life for employees is organizational culture (Rose, Kumar, Abdullah & Ling, 2008). In spite of the fact that organizations have always had cultures, managing these cultures has been a challenging and ambiguous task for business leaders (Ali *et al.*, 2017). Knowledge of organizational culture therefore allows an

organization to change emphasis on certain values and to shift focus by emphasizing values in a cultural type identified as more desirable (Choi, Seo, Scott, & Martin 2010). Likewise, enhancing organizational culture through development of strong relationship with stakeholders is one of the tools that can be used by an organization to enhance performance (Kalyar, Rafi & Kalyar, 2013). It is therefore important for organizational leaders and managers to be assessing organizational culture on a regular basis to ensure that it maintains good relations with stakeholders.

Organizational culture is closely related to many managerial areas such as communication, decision-making process, effectiveness, leadership, and human resource management (Choi *et al.*, 2010). If an organization has strong culture and congruence, it is more effective than when it has a weak, incongruent, and disconnected culture. Organizational culture therefore plays an important role within an organization as it influences leadership, managerial and employee behaviour and it affects, as well as, is affected by stakeholders. The study findings will therefore benefit a number of stakeholders including the following:

1.5.1 National Government and County Governments

The Government of Kenya through the Constitution and other legal statutes seeks to promote nondiscriminatory employment practices and work environment that fosters equity, social justice, inclusiveness, equality and where employees' dignity as human beings is respected (The Kenya Constitution, 2010; The Employment Act, 2007; The Labour Relations Act, 2007; The Work Injury Benefits Act, 2007). The results of this study will therefore inform National Government policy on the prevailing culture in the public water companies which are the mandated agents for the supply of potable water. Policy makers of County Governments will also benefit from the outcome of this investigation given that the supply of water services is a devolved function as per the Constitution of Kenya.

1.5.2 Water Companies

Water companies are expected to promote national values, principles of public service and good governance among their employees. The study findings will therefore provide guidelines to the leaders and managers of these utilities and enhance their understanding of how to improve performance of their organizations through adoption and implementation of strong, positive and congruent organizational culture. The leaders and managers of water companies are also likely to benefit greatly from this study because its findings will help in effective

management of human resource which is a key factor of enhancing organizational performance.

1.5.3 Human Resource Practitioners

HR practitioners being developers and custodians of HR management policies and practices will benefit from this study as they will gain in-depth understanding on the importance of putting into operation suitable policies and practices of management with a view to creating ethical organizational culture. The association involving organizational culture and performance will enable them to design culture change programmes that will bring forth better operational results to attain higher organizational performance. HR practitioners will also benefit from this study on the process of nurturing and rewarding service practices and behaviours that meet customer needs within a strategic situation at the micro and macro levels.

1.5.4 Researchers and Scholars

Researchers will benefit from both the theoretical literature reviewed and the results of this study which intended to ascertain the relationship involving an organization's culture and its performance. If other associated fields of additional studies are established, other researchers will have an opportunity to undertake such research and grow the body of knowledge pertaining to the link principally involving organizational culture and performance and generally other related areas.

1.5.5 Business Owners, Company Managers and Leadership

Business owners and company managers will benefit from this research as they will gain insight on the role of organizational culture in enhancing organizational performance. This will enable them to put in place an encouraging organizational culture aimed at creating and sustaining a positive work environment where similarities and differences of individuals are valued, so that all employees can reach their potential and maximize their contributions to organizations' strategic goals and objectives. This will ultimately lead to enhanced and sustainable organizational performance. Business owners will also be able to assess the effectiveness of the use of various aspects of organizational culture as a tool for enhancing and sustaining performance of their organizations.

1.6 Scope of the Study

The purpose of this study was to examine the influence of organizational culture on performance of the public water companies in Kenya. Guided by the research hypotheses, the study focused on four independent variables (clan type of culture, adhocracy type of culture, market type of culture and hierarchy type of culture), a moderating variable (leadership values) and performance as the dependent variable. The population of investigation was composed of all the 84 licensed public water companies according to the list obtained from the Water Services Regulatory Board as shown in Appendix III.

1.7 Limitations of the Study

Accessing in-depth and useful information needed for objective analysis on organizational culture available was not very easy as HR management policies and practices are habitually considered sensitive and classified information by organizations. This limitation was mitigated by having a letter of introduction from the University to guarantee the respondents that the information they gave was to be utilized solely for scholarly activities and assured them of confidentiality.

Initially slow response was experienced from respondents particularly at the management level because of their busy schedules. This was alleviated by having constant follow up on phone and booking of appointments for the interviewer and the research assistants. The interviewer also approached top management particularly the HR Managers to enlist their support in ensuring the availability of the employees identified to fill the questionnaire.

Performance in respect of organizations is a very wide area of study. This study focused only on three dimensions, namely; employee satisfaction, customer satisfaction and corporate social responsibility. Dimensions such as financial performance were not examined. A model of organizational performance that includes all major performance aspects might require different measures of the identified dimensions. Further, the study was limited to one sector (water) of non-profit public organizations (water companies) which may limit the broad-spectrum applicability of the investigation results. Even so, this is not expected to lessen the significance of the findings of this investigation which corroborates the findings of other studies in this area and also bring into the limelight the significance of organizational culture and its effect on performance of enterprises.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature review of the study. It comprises of theoretical review pertaining to five key theories relevant to the study and the conceptual framework. It also comprises of a detailed description of the notion of organizational culture and performance, empirical studies related with the concepts under review, critique of literature and summary of literature plus research gaps pertaining to the study.

2.2 Theoretical Review

A theoretical framework refers to the theory that a researcher chooses to guide in research (Imenda, 2014). It is therefore the application of a theory, or a set of concepts drawn from one and the same theory, to offer an explanation of an event, or shed some light on a particular phenomenon or research problem. This helps in limiting the scope of the relevant data by focusing on specific variables and defining the specific viewpoint or framework that a researcher will take in analyzing and deducing the information to be collected (Swanson, 2013). A variety of theories and models can be utilized so as to understand the theoretical support of organizational culture - performance relationships. The key theories relevant to this study that were reviewed are resource-based view, dynamic capabilities theory, goal theory, institutional theory, stakeholder theory, organizational culture theory plus culture and leadership theory.

2.2.1. Resource-Based View

Resource-based view postulated by Barney (1991) focuses on a firm's internal environment in terms of its resource and capabilities as the source of improved performance and the linkage of these with organizational strategy (Seedee, 2012). In the resource-based view, the emphasis is on gaining sustainable competitive advantage by way of successful and well-organized use of the assets of a firm (Barney, 1991). Its central proposition is that if an organization is to achieve and sustain a state of improved performance, it must acquire and control valuable, rare, inimitable, and non-substitutable resources and capabilities.

According to Barney (1991), three basic types of resources can provide competitive advantage to companies. These resources are physical resources, organizational resources, and human

resources. Human capital resources include a firm's employees, relationships, trust and organizational culture. Barney (1986) argues that, in order for a firm's culture to provide sustained competitive advantages, and thus, by implication, be a source of sustained superior performance, three conditions must be met. First, the culture must be valuable in order to allow an organization to behave in a manner that will lead to improved performance. Second, the culture must be rare; it must have attributes and characteristics that are not common to the way of life of a big figure of other companies in the same industry. Finally, a culture must be imperfectly imitable such that even if potential imitators can understand valuable and rare organizational cultures, it still may not be possible to imitate those cultures. Resource-based view supports the clan culture variable by validating that the postulation in respect of clan culture is that individual membership generates constructive sentimental employee outlook to an organization. It also highlights the reality that companies perform well since they employ, grow, and keep their valuable employees. The resource-based view therefore is related to objective one of this study "To determine the influence of clan culture on performance of public water companies in Kenya."

2.2.2 Dynamic Capabilities Theory

Teece, Pisano and Shuen (1997) developed the concept of dynamic capabilities as the ability of the organizations to renew competencies so as to attain congruence with the changing business environment by adapting, integrating, and reconfiguring internal and external organizational skills, resources and functional competencies. They therefore defined dynamic capabilities as the ability to integrate, build, and reconfigure internal and external competencies to address rapidly-changing environments. Barreto (2010) defines dynamic capabilities as those capabilities that characterize a firm's potential to systematically solve problems, formed by its propensity to sense opportunities and threats, to make timely and market-oriented decisions, and change its resource base. Zollo and Winter (2002) indicate that the purpose of dynamic capabilities is to improve organizational performance, while Zahra, Sapienza and Davidsson (2006) explained that the purpose of changing the resource base is to support the requirements of principal decision-makers of a firm. Wang and Ahmed (2007) explicitly state that the purpose of reconfiguration, reconstruction and upgrade of a firm's resource base is to respond to the changing environment in order to attain and sustain competitive advantage.

According to Teece (2007), dynamic capabilities can be subdivided into three capabilities. These are: sensing capabilities (the capacity to discern opportunities and threats); seizing capabilities (the capacity to grasp opportunities); and reconfiguration capabilities (the capacity to maintain competitiveness by enhancing, combining, protecting, or reconfiguring intangible and tangible assets). Capabilities are transformed in generally six ways (Teece, 2007). They can be renewed, redeployed or recombined. They also can be replicated, retrenched or retired. The influence of managerial decision making in the selection activity that is responsible for capability transformation highlights the importance of sensing, seizing and transforming capabilities (Teece, 2007). Sensing, seizing and reconfiguration or transforming capabilities will enable management to better interpret opportunities and threats, which will in turn guide the decisions on whether to renew, redeploy, recombine, reconfigure, replicate, retrench or retire capabilities (Teece, 2007).

Researchers such as Eisenhardt and Martin (2000); Helfat *et al.* (2007) and Teece (2007) argue that dynamic capabilities represent an organization's capacity to identify the need or opportunity for change (sensing), formulate a response to such a need or opportunity (seizing), and execute a way of action (reconfiguring). The bridge between sensing and seizing is also understood to involve acquisition of strategic insights, whereas the relationship between seizing and reconfiguring refers to strategy execution (Helfat *et al.*, 2007). The underlying assumption of the dynamic capabilities theory is that companies which are able to sense and then seize new opportunities and, further, reconfigure their resources and capabilities in line with recognized opportunities and environmental change can create and sustain a competitive advantage (Teece, 2012). Li and Liu's (2014) study of 217 companies in China shows that dynamic capabilities significantly and positively affect competitive advantage, and that environmental dynamism is an important driver. Dynamic capabilities theory supports the variable of adhocracy culture by highlighting that those organizations which are able to sense and then seize new opportunities and, further, reconfigure their resources and capabilities in line with recognized opportunities and environmental changes can enhance and sustain desired performance. The dynamic capabilities theory therefore is related to objective two of this study "To examine the influence of adhocracy culture on performance of public water companies in Kenya."

2.2.3 Goal Theory

Goal theory was developed by Latham and Locke (1979) and it states that motivation and performance are higher when individuals are set specific goals, when goals are difficult but accepted, and when there is feedback on performance (Armstrong & Taylor, 2014). Involvement in goal setting is imperative as a way of receiving agreement to the setting of goals. Feedback is vital in sustaining motivation, principally towards attainment of even higher goals. Erez and Zidon (1984) emphasized the need for acceptance of and commitment to goals by employees in an organization.

Goal theory draws attention to four methods that attach goals to productivity results: they draw awareness to precedence; they inspire exertion; they dare employees to make use of their understanding and expertise to enhance their prospects of achievement; and the more demanding the objective, the more employees will employ their complete range of ability (Armstrong & Taylor, 2014). Goal systems influence productivity by enhancing inspiration to attain given objectives (Latham, 2004). They are thus contributions that influence the conduct of employees. This provides an impetus to enhance awareness to an objective, vigour in tracking an objective, determination in realizing an objective and capability to achieve an objective (Locke & Latham, 2002).

When employees direct interest on the conduct that will achieve an objective, they in addition switch consideration away from deeds that will not accomplish the objective (Locke & Latham, 2006). Participation in setting one's own goals results in a higher rate of acceptance due to an individual feeling a sense of control over the goal setting process (Erez, Earley & Hulin, 1985). Employees' motivation and performance are higher when goals are accepted and when there is feedback on performance. The goal theory supports the variable of market culture by providing a rationale for setting of demanding/higher goals and by providing feedback on employee performance, which in turn promotes an awareness of capability and mindset of self-competence and collective efficacy. The goal theory therefore is related to objective three of this study "To establish the influence of market culture on performance of public water companies in Kenya."

2.2.4 Institutional Theory

Institutional theory derives from the studies undertaken by Meyer and Rowan (1991) and DiMaggio and Powell (1991). The theory provides an explanation that can be utilized to

understand planning and implementation of management mechanism within companies. Meyer and Rowan (1991) assert that companies are motivated to integrate routines and measures identified by existing streamlined perceptions of firm work and established in public. They also state that companies that comply enhance their legality and their chances of continued existence, autonomous of the instantaneous expediency of the attained routines and measures.

Arwinge (2013) states that a firm's patterns, in addition to the assortment of control functions internally, roles, processes and systems become figurative exhibits of compliance and societal responsibility. The author also states that companies with suitable configurations and formal regulations stay away from examination of their company activities. These regulations entail normative commitments which could be observed as essentials of firm life which ought to be taken into consideration by managers and leaders of institutions. Regulations therefore have a lot influence on activities and processes of a firm. The regulations that must be presumed, define fresh organizing situations, rename the previous ones and recommend the way fresh firm operations ought to be executed (Meyer & Rowan, 1991).

DiMaggio and Powell (1991) state that companies are forced to be isomorphic with the surroundings in three ways; coercive, mimetic and normative. Coercive isomorphism is a reaction to the expectations of the society in which a firm undertakes its activities and operations. These demands that may be prescribed and casual consist of values and set of laws enacted by government and quasi-government institutions in a variety of areas of operations, compelling companies to execute given regulations. Mimetic kind of isomorphism as stated by DiMaggio and Powell (1991) is essentially to pattern oneself after most excellent practices, which entails a change that takes place in a situation of ambiguity. Leaders of organizations enthusiastically view competition in other industries apart from their own so as to locate simple and economical methods to tackle predicaments facing their companies and execute business practices that are lawful and ethical (Arwinge, 2013).

Normative type of isomorphism is a change that is associated with diverse professions in a community and across organizations. Various professions endeavour for self-regulation by setting their individual standard operating procedures to guide their operations. The impetus for the self-regulation is the homogeneous prescribed learning, the professional bodies and systems that are adopted and implemented by various companies (DiMaggio & Powell, 1991).

Self-regulation endeavours to accelerate the effect of matching the standard operating procedures of various professions across organizations. Institutional theory supports the variable of hierarchy culture by highlighting the necessity of developing and adopting values and norms that introduce a prescriptive, evaluative, and obligatory dimension so as to diminish ambiguity and promote fidelity and consistency through combined measures in various companies (House, Hanges, Javidan, Dorfman & Gupta, 2004). The institutional theory therefore is related to objective four of this study “To investigate the influence of hierarchy culture on performance of public water companies in Kenya.”

2.2.5 Stakeholder Theory

Stakeholder theory in accordance with the ideas of Freeman (1984), states that an organization should be managed in a way that satisfies a variety of constituents. According to Schermerhorn, Hunt, Osborn and Osborn, (2004); stakeholder theory deals with the consequences of a firm on a variety of stakeholders and their concerns. The stakeholders include owners of the organization, government and regulating agencies, local community organizations, customers, competitors, employees, special interest groups, environmentalists, suppliers, and the media. Constituencies have powerful influence on an organization, and it has to respond to their demands. While several variants of stakeholder model exist, the core of all variants is that an organization is effective to the extent that it satisfies the needs of various relevant organizational constituencies (Tsui, 1990). According to Legge (1998), leaders ought to operate business for the benefit of their different groups of stakeholders by safeguarding the long-term stakes of each group. Freeman, Harrison, Wicks, Parmar and de Colle (2010) denote that the underlying idea of stakeholder theory is that the success of an organization is linked to how well it manages its relationship with the diverse group of stakeholders.

According to the stakeholder theory, it is not sufficient for managers to focus exclusively on the needs of shareholders or the owners of the business. In this outlook, the notion of corporate social responsibility (CSR) is taken into consideration. Stakeholder theory therefore implies that it can be beneficial for an organization to engage in certain CSR activities that non-financial stakeholders perceive to be important (Armstrong & Taylor, 2014). The justification for CSR, as defined by Hillman and Keim (2001) is based on two proposals. First, there is a moral imperative for businesses to do what is right without regard to how such decisions affect organizational performance (the social issues argument); second, organizations can attain competitive advantage by attaching CSR activities to primary

stakeholders (the stakeholders argument). Research done by the authors in a sample of 500 American S&P companies revealed that investing in stakeholder management may be complementary to shareholder value creation and could indeed provide a basis for competitive advantage as important resources and capabilities are created that differentiate an organization from its competitors. The stakeholder theory supports organizational performance variable by defining productivity as the contentment of stakeholders in addition to the well-being and sustainability of the wider social environment.

2.2.6 Organizational Culture Theory

This organizational culture theory is based on the work of Pacanowsky and O'Donnell-Trujillo (1982). It was founded on the idea that values and behaviours contribute to the environment of an organization. One significant supposition of the theory is that organizational cultures vary greatly and are remarkably different. The authors argued that an ethnographic or natural come near makes the most sense to uncovering the individual characteristics and culture found in each organization. They further argued that by interpreting the stories, practices, rituals, verbal and non-verbal routines, and artifacts of an organization, researchers can uncover meanings useful to understanding how employees work and perceive their work environment. According to Pacanowsky and O'Donnell-Trujillo (1982), these insights are essential to improving performance of organizations.

Pacanowsky and O'Donnell-Trujillo (1983) later introduced the term performances as those situational and variable interfaces by which organizational members construct organizational reality. They divided performances into five sub-categories, namely; ritual, passion, social, political, and enculturation. Ritual performances include occurrences that are a reoccurring part of the routine of individuals or work units. This performance can also involve social rituals such as company team building workshops or end year parties. A passion performance is characterized by storytelling, slogans or metaphors. Social performances are acts of politeness and etiquette. Political performances are explained as exercising power and influence. Lastly, enculturation performances are formalized ways which provide employees with tools to learn and improve performance. Organizations have many methods by which the objective of enculturation is accomplished, for example, online learning, group training, simulated practice and mentoring programmes.

Since the organizational culture theory was first presented by Pacanowsky and O'Donnell-Trujillo (1982), many other researchers (for example, Cameron & Quinn, 1999; Kim, 2017; Markovic, 2012) have utilized it to examine various organizational cultures. Numerous subsets within cultures like the CVF model of Cameron & Quinn (1999) encompassing the four types of organizational culture have also been studied. This theory therefore is related to the general objective of this study which was to determine the influence of organizational culture on performance of public water companies in Kenya.

2.2.7 Situational Leadership Theory

Situational leadership theory was developed by Hersey and Blanchard (1969, 1977). The theory was first introduced in 1969 as life cycle theory of leadership and during the mid-1970s; it was renamed situational leadership theory. The fundamental principle of the situational leadership theory is that there is no single best style of leadership. Effective leadership is task-relevant, and the most successful leaders are those who adapt their leadership style to the performance readiness (ability and willingness) of the individual or group they are leading. This leadership theory holds that a leader's most appropriate action or behaviour depends on the situation and on the followers.

Situational leadership theory has two basic concepts: leadership style and the individual or group's performance readiness level, also referred to as maturity level or development level. Hersey and Blanchard (1982) characterized leadership style in terms of the amount of task behaviour and relationship behaviour that leaders provide to their followers. They categorized all leadership styles into four behaviour styles: delegating, supporting, coaching, and directing. Their theory presupposes that each of these leadership styles can be effective, depending on the development stage of the individual or people a leader is leading. According to this theory, then, how a leader leads is not a question merely of him/her and his/her skills and abilities; it also depends heavily on the leader's followers' abilities and attitudes.

The directing (or telling) leadership style is about task behaviour. It involves telling people what they should be doing (one-way communication). Coaching (or selling) also involves directing people, but in a more supportive way. The leader attempts to hear the suggestions, ideas, and opinions of his/her followers, which translates to a two-way communication. Supporting involves relationship behaviour, which includes providing support and encouraging the efforts of the followers. Delegating requires minimal direction and support.

The leader enables by discussing problems with the followers and coming to agreement on the nature of the problem. Of these styles, no one style is considered optimal for all leaders to use all the time. Effective leaders need to be flexible, and must adapt themselves according to the situation. The right leadership style will depend on the person or group being led. Situational leadership theory further identified four levels of development or maturity: high (very capable), medium 1 (capable but unwilling), medium 2 (unable but confident) and low (unable and insecure).

From management's perspective, the greater the development level of the subordinates, or followers, the less time the leadership needs to spend managing staff and still getting high quality results. Furthermore, leadership will be most effective if a leader can analyze a situation, decide what style of leadership is needed by the group, and act accordingly. Good leaders develop the competence and commitment of their people so that they are self-motivated rather than dependent on others for direction and guidance (Hersey & Blanchard, 1982). According to Hersey (1985), a leader's high realistic expectation causes high performance of followers while a leader's low expectation leads to low performance of followers.

According to Ertosun and Adiguzel (2018), leadership is the most common concept among the factors that constitute organizational culture. In literature, it is accepted that organizational culture and leadership have reciprocal effects on each other and therefore they are considered highly related concepts in organizational life (Schein 2004). Leadership is extremely important for organizations in terms of achieving certain common goals because leaders have a strong influence on the behaviours and performance of individuals and groups (Aktas, Cicek & Kiyak, 2011). Additionally, the aims of the group are also the targets that are approved or requested by the leader (Ertosun & Adiguzel, 2018). As a result, a leader has an important role in acquiring a new organizational identity during the re-institutionalization processes by supporting certain approaches, attitudes, understandings, values, and behaviours (Northouse, 2013). Otherwise, if inconsistencies of values emerge, it may cause the re-assessment of the organizational values or a change in leadership style. The situational leadership theory therefore is related to objective five of this study "To establish the moderating effect of leadership values on the relationship between organizational culture and performance of public water companies in Kenya."

2.3 Conceptual Framework

A conceptual framework is a pictorial presentation of the relationship between criterion variable and predictor variables (Mugenda & Mugenda, 2003). The main purpose of a conceptual framework is that it enables a researcher to find an association between the prevailing literature and research goals (Greener, 2008). In this study, a conceptual framework was used as the study model to guide the relationship of the variables under study and to keep the research work focused on the general and specific objectives of the study. The conceptual structure of the study is illustrated by Figure 2.1.

The predictor variable of the study was organizational culture exemplified by four indicators clan, adhocracy, market and hierarchy types of culture as developed by Cameron and Quinn (1999). The criterion variable was performance which was assessed through three indicators namely; employee satisfaction, customer satisfaction, and corporate social responsibility as demonstrated by Brady, Cronin and Brand (2002). Chan, Isobe and Makino (2008) suggest that performances of public sector entities should be measured through service delivery. Wiele, Boselie and Hesselink (2002) relate customer satisfaction to organizational culture by defining it as a consistent, adaptable and qualified process of customer needs satisfaction. Bellou (2007) found that customer satisfaction is closely related to organisational culture which affects employees' eagerness to serve customers. According to Ambrož and Praprotnik (2008), organizations whose cultures are not strongly customer and service oriented have little chance to succeed. Service organisations must therefore be constantly open to the needs and expectations of their customers. Delmas and Offel (2008) suggest that an organization should be responsive to environmental dictates through involvement in corporate social responsibilities. Richard, Devinney, Yip and Johnson (2009) indicate that employee satisfaction is an indicator of organizational performance.

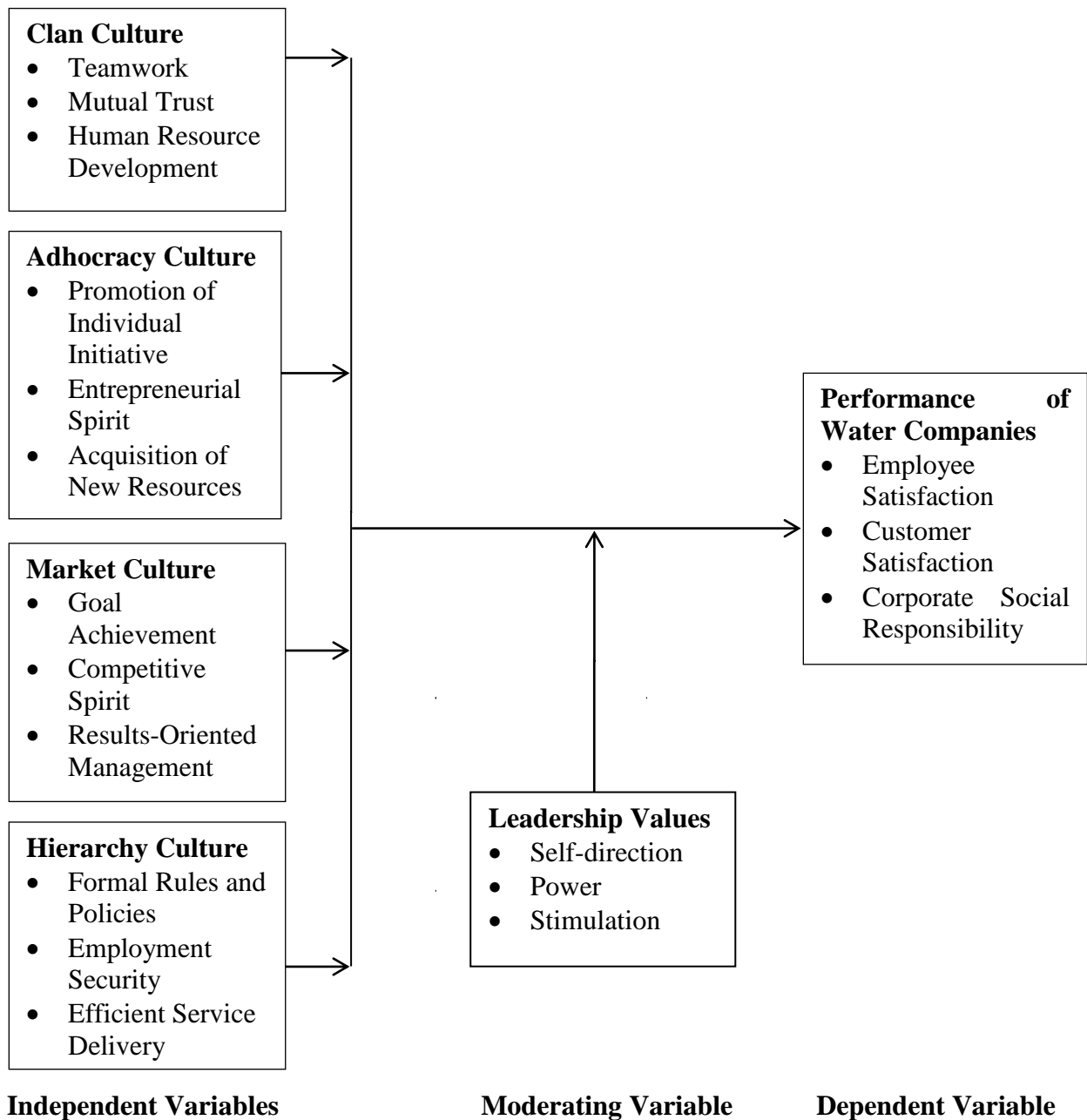


Figure 2.1: Conceptual Framework

In general, it has been argued by many researchers that, success-oriented organizational culture increases organizational performance (Denison, 1990; Furnham, 1997; Kotter & Heskett, 1992; Schein, 2011). In this perspective, organizational culture has a number of classifications that are helpful as a foundation for assessment of observable facts in various organizations. Furthermore, literature suggests that different types of culture have different effects on organizational performance (Naranjo-Valencia, Jiménez-Jiménez and Sanz-Valle, 2016). The competing values framework (CVF) developed by Cameron and Quinn (1999) is

amongst others; one of the most relevant models utilized for estimation of culture of a firm. This model which specifically examines the association between particular organizational culture spheres and specific performance measures was used in this study.

The CVF model was chosen for this study because it is an organizational culture taxonomy widely used in a number of studies pertaining to organizational culture and performance (for example, Obenchain & Johnson, 2004; Stock, Mcfaddena & Gowen, 2007; Valencia, Valle & Jiménez, 2010). Specifically, the model has been used in research to assess organizational culture as a predictor of quality improvement implementation, employee and customer satisfaction, and team functioning, among other outcomes (Helfrich, Li, Mohr, Meterko & Sales, 2007). Furthermore, the reliability and content validity measure of the CVF model has been empirically supported in studies utilizing multitrait–multimethod analysis and multidimensional scaling (Hartnell, Ou & Kinicki, 2011).

Figure 2.2 shows how the aspects of focus and structure overlies to delineate the four culture categories comprising the CVF model, that is, clan, adhocracy, market, and hierarchy. The first value of the CVF model is each culture category has distinctive combination of conduct, ideals, viewpoints and suppositions that has a consequence on an organization's endeavour to accomplish unique business outcomes (Hartnell, Ou & Kinicki, 2011). The second value of the CVF model is the focus element (that is, horizontal axis) distinguishes performance criteria that highlight internal competences, integration, and harmony of processes from those that focus on an external direction and differentiation. The structure aspect (that is, vertical axis) distinguishes performance criteria that centre on flexibility and discretion from criteria that highlight stability and control. Organizations that lie in the left side of the matrix (clan and hierarchy) are classified as being internally focused, whereas organizations in the right side (adhocracy and market) are classified as externally focused. Organizations that lie in the upper half of the matrix (clan and adhocracy) are classified as flexible, whereas organizations in the bottom half of the matrix (market and hierarchy) are classified as stable.

The third value of the CVF aspect, means–ends, is the theoretical foundation upon which the CVF model proponents explain why each culture kind is associated with an explicit strategic thrust and a distinctive set of performance criteria. Specifically, the third aspect explains the behaviours that derive from values and beliefs. These behaviours are the methods (means) through which the four culture categories are associated with desired performance criteria

(ends). Organizational values and beliefs are therefore the social normative expectations that inform members how they are supposed to behave (Hartnell *et al.*, 2011). Behaviours (for example, teamwork, creativity, goal setting, sticking to rules and policies) consequently influence employees' mind-set and performance.

According to the CVF model, the four culture categories relate to diverse organizational performance gauges as a result of their fundamental postulations, ideals, and structures. Hartnell *et al.* (2011) observe that, the four culture categories in opposite quadrants are not contending. In reality, organizations are expected to reflect all the four culture types to some extent. The CVF does not specify a preferred organizational culture, and there are many competing hypotheses about what cultures or combinations of cultures are superior and under what conditions (Cameron & Freeman, 1991). However, a fundamental assumption of the CVF is that all four cultures operate at an organizational level and remain relatively stable over time (Denison & Spreitzer, 1991). Furthermore, all four cultures are hypothesized to pervade most aspects of an organization, from the demeanor of its managers, to the values that bind employees to one another; to the priorities an organization pursues (Helfrich, Li, Mohr, Meterko & Sales, 2007). It is therefore expected that the dominant culture should manifest itself in the views of employees at all levels of an organization (Denison & Spreitzer, 1991; Quinn & Rohrbaugh, 1983). In other words, the four values may be more harmonizing than conflicting. According to Chatman and O'Reilly (2016), the possibility that some of these values can exist simultaneously in organizations has been substantiated by research on ambidextrous organizations.

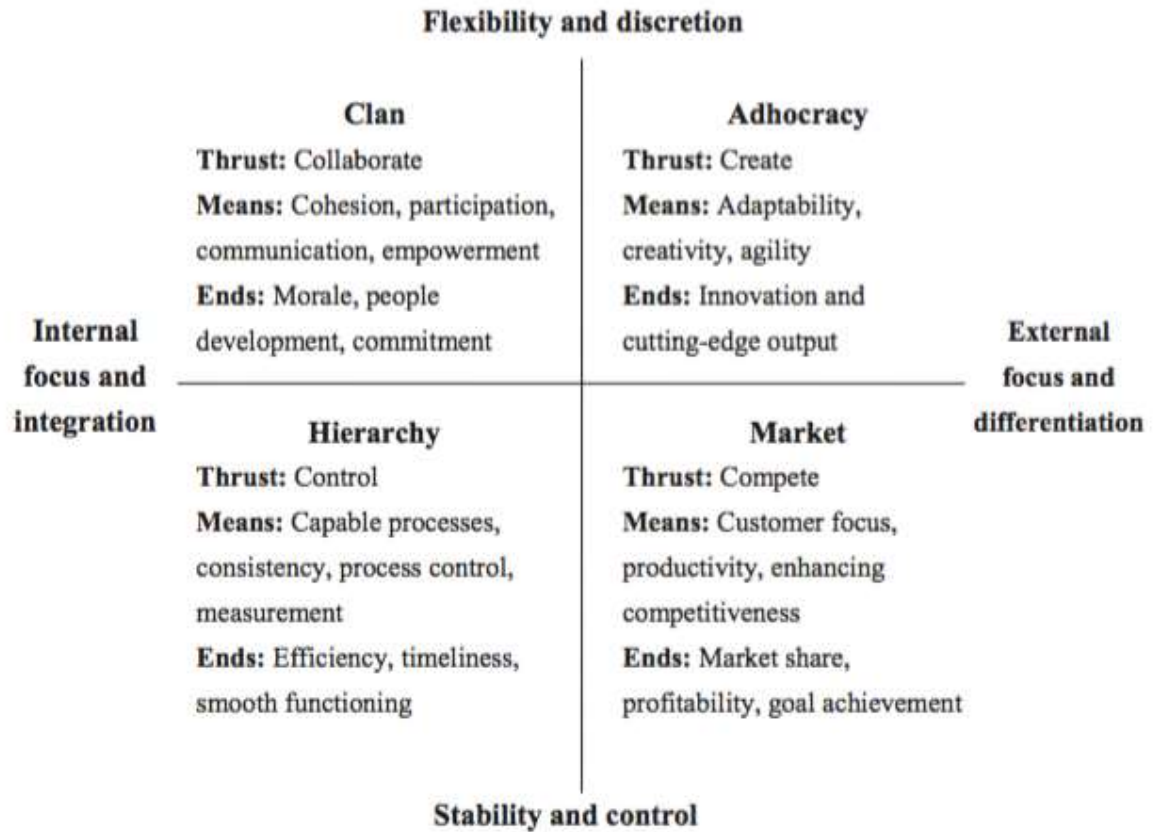


Figure 2.2: Competing Values Framework

Source: Hartnell *et al.* (2011)

Cameron and Quinn (1999) developed a tool referred to as organizational culture assessment instrument (OCAI) for evaluating culture in an organization. The tool contains six main elements which shape the foundation of their model on organizational culture. The elements are: overriding organizational distinctiveness, leadership approach, supervision of employees, organizational glue, strategic emphasis and criteria for success. The OCAI aligns with well-accepted cultural categorical themes – the way people think, their values, assumptions and how they process information (Choi *et al.*, 2010). Other studies have used different typologies such as the cultural trait typology that can be compared to the typology of Cameron and Quinn (1999). One such typology, developed and tested by Denison and Mishra (1995), mentions the attributes of involvement, adaptability, mission, and consistency. These traits share the same cultural-type point of reference developed by Cameron and Quinn (1999), which are equivalent to clan, adhocracy, market and hierarchy types of firm culture. Denison and Mishra (1995) conducted a study in USA concluding that the four traits are positively

related to subjective measures (quality, employee satisfaction, and overall organizational performance).

2.3.1 Clan Culture

Clan culture is internally focused and concerned with human relations (Cameron & Quinn, 2011). Its value is reflected in concerns for employee loyalty, commitment, and group cohesion. The clan culture type derives its name from its likeness to a family-type of structure. Clan-type companies have distinctive features such as teamwork, employee involvement programmes, and corporate commitment to employees (Cameron & Quinn, 2006). Clan culture is also characterized by social features as trust, solidarity, loyalty, morale, tradition, collaboration, participation, consensus, and individual development (Cameron, 2004; Cameron & Quinn, 2006; Tseng, 2010). People in this culture therefore tend to be committed to their organization, focusing on shared values and open door policy. Achievement of goals is characterized in respect of an enabling work environment and high regard for employees. Leaders build organizations by encouraging trusting relationships, nurturing and empowering employees. Unified behaviour produces a strong organizational image in the marketplace and customers are best thought of as stakeholders.

The conjecture on which clan type of culture is based on is that the feeling of belonging creates optimistic emotional employee stance in respect of a firm (Hartnell *et al.*, 2011). A firm will therefore be successful since it employs, trains, and keeps its valued employees (Cameron, Quinn, DeGraff & Thakor, 2006). A fundamental principle pertaining to clan type of culture is that a firm's faith in and obligation to employees makes it possible to espouse open door policy and employee participation. Creation and maintenance of an enabling work environment is likely to enhance the morale, satisfaction, and commitment of employees towards the management and their organization (Cameron & Ettington, 1988).

Tseng (2010) argues that organizations having clan type of culture underscore durable advantages in respect of well trained and developed employees who also have strong unity and high self-esteem. The author further argues that organizational performance comes from interdependent behaviour like cooperation, knowledge sharing, and mutual assistance. Fekete and Bocskei (2011) reported that clan culture is positively related to performance of companies. The authors also argue that devotedness to an organization; loyalty and tradition are the underlying factors behind this positive relationship. Clan culture displays several

characteristics in the workplace that are likely to have affirmative effect on a firm's productivity outcomes. Successful Japanese companies with effective team structure are typical examples of clan culture (Berrio, 2003).

2.3.2 Adhocracy Culture

Adhocracy culture is a developmental organizational culture that emphasizes new products and service development, growth, change and productivity (Cameron & Quinn, 2006; Tseng, 2010). The most important aim of this sort of culture is to promote suppleness and ingenuity where doubt and hopelessness proliferate. These characteristics reflect external orientation and have better developed knowledge conversion and corporate performance (Tseng, 2010). Adhocracy culture therefore focuses on change designed to satisfy key external stakeholders. This orientation concentrates on growth, stimulation, creativity and variety. Kim, Lee and Yu (2004) argue that organizational culture that is characterized by adaptability to its external environment has the potential to positively affect performance outcomes.

Adhocracy culture is also characterized by a dynamic, entrepreneurial and creative environment. Prominence is accorded to innovativeness and ever enhancing the eminence of a firm's products and services. Strategic plans of adhocracy type of culture are anchored on eagerness for continuous change, acquisition of new knowledge and resources. Success means producing unique and value added products and services. Managers build an organization by developing a compelling vision and emphasizing new ideas and technologies, flexibility and adaptability. Ogbonna and Harris (2000) reported that adhocracy type of culture is positively related to organizational performance. Fekete and Bocskei (2011) found that adhocracy culture influences economic outcomes of companies. Organizations transacting business over the internet which is defined as new economy and using advanced technology are examples of this culture (Acar & Acar, 2014).

2.3.3 Market Culture

The core values of organizations with market culture are goal achievement, consistency, and productivity (Yesil & Kaya, 2013). The driving force is on aggressive measures with a view to setting and achieving challenging targets. Criteria of success are based upon target achievement by employees, which are normally conducted from the activities that connect an organization with its market or stakeholders. Traditionally, the purpose of organizations with an emphasis on market culture tends to be pursuit and attainment of well-defined objectives

(Cameron, 2004; Cameron & Quinn, 2006). The basic assumption in a market culture is that the external environment is not benign but hostile, consumers are choosy and interested in value, and an organization is in the business of ever improving performance (Quinn & Spreitzer, 1991).

In market culture, leaders build an organization by clarifying objectives and improving a firm's performance through hard work and productivity. They can also use healthy competition among employees to improve productivity. Organizations in which efficiency and achievement is the norm motivate employees by setting difficult yet attainable goals and by providing feedback on employee performance, which in turn promotes an insight of capability and a mind-set of self-efficiency and collective efficacy (Xenikou & Simosi, 2006). Han, Kim and Srivasta (1998) argue that market-oriented organizational culture has been increasingly considered a key element of superior organizational performance. In their study, they found that market-oriented organizational culture facilitates organizational innovativeness, which in turn affects firm performance.

In a study, Fekete and Bocskei (2011) found that market type of culture had an affirmative consequence on a firm effectiveness, efficiency and competitiveness, which in turn improves performance outcomes. These researchers argued that market culture emphasizes outer surroundings and focuses on specific characteristics that appear to have a significant part in making companies get used to their operating environments (Yesil & Kaya, 2013). Furthermore, market culture has been found to improve productivity, mainly when the performance measuring stick is market results (Naranjo-Valencia *et al.*, 2016).

2.3.4 Hierarchy Culture

Hierarchy culture has a clear organizational structure, standardized rules and procedures, strict control, and distinct tasks (Aktas *et al.*, 2011). Formal regulations, well articulated standard operating procedures are often regarded as the main characteristics of hierarchy culture (Cameron, 2004). Leadership and management in hierarchy type of firm culture are concerned with constancy, certainty, and good organization (Tseng, 2010). Clear lines of decision-making authority, standardized rules and procedures, control and accountability mechanisms are cherished as keys to success (Cameron & Quinn, 2006). Key values centre on maintaining efficient, reliable, fast, smooth flowing production of goods and provision of services (Cameron & Quinn, 2006).

The other key values are clear role definitions, focused planning, efficient systems and processes and adherence to norms and regulations (Sanz-Valle, Naranjo-Valencia, Jimenez-Jimenez, & Perez-Caballero, 2011). Driving purposes include obtaining high quality or optimization, sometimes expressed as predictability or productivity. Leaders build organizations by optimizing processes, cutting costs, and establishing and implementing policies and procedures. Hierarchy culture can therefore be described as emphasizing internal efficiency, uniformity, coordination, and evaluation. A significant role in achieving efficiency is played by leaders of an organization, whose personal qualities and skills determine organizational strategy, goals and results to be achieved. Tseng (2010) argues that more formalized companies usually possess prescribed controls and processes, thus, they have better developed organizational performance because of their effective management.

2.3.5 Leadership Values

Leadership is one of the key driving forces for improving organizational performance. Leaders, as the key decision-makers, determine the acquisition, development and deployment of organizational resources, the conversion of these resources into valuable products and services. Leadership helps organizations to achieve their current objectives more efficiently by linking job performance to valued rewards and by ensuring employees have the resources needed to get work completed. Leaders craft strategic vision, disseminate that vision, model the vision by consistent behaviours, and make an obligation regarding the vision (McShane & Von Glinow, 2000). Organizational culture therefore represents an active and living phenomenon by which leaders of an organization create shared meaning (Berson, Oreg & Dvir, 2008). Leaders also have a central role in shaping and controlling organizational culture (Schein, 1992).

Values as defined by Schwartz (1992) are enduring objectives that act as a steering code of conduct in the existence of human beings. Aktas *et al.* (2011) argue that in the consistent approach related to previous researches, three types of values that can shape leadership are self-direction, power and stimulation as indicated by Table 2.1. Self-direction includes freedom, creativity, independence, and direction to suitable environment. Power includes authority, social power and charismatic perception by others. Lastly, stimulation includes openness to diversity in organization and changes, having a desire for necessary action in several conditions. The authors further argue that self-direction, power and stimulation values

of an organization's top leaders are the criteria shaping organizational culture as some of the pertinent elements and their emerging effects can be diminished or empowered through values.

Table 2.1: Part of Schwartz's (1992) Value Types Reflecting Their Motivational Dynamics

Value Types	Central Motivational Goal	Representative Values	Higher Order Values
Self- direction	Independent thought and action: choosing, creating, exploring.	Creativity, freedom, independence, curiosity	Openness to Change
Power	Social status and prestige, control or dominance over people and resources.	Social power, authority, wealth	Self-Enhancement
Stimulation	Excitement, novelty, and challenge in life.	Daring, a varied life, an exciting life	Openness to Change

Source: Huysentruyt, Stephan and Vujic (2015)

Leaders as change agents are also in a position to influence adaptation of sustainable values in an organization (Linnenluecke & Griffiths, 2010). In such situations, organizational culture may align with the personal opinion and judgment of leaders on ideals, viewpoints, postulations, ideologies and ways of doing things. Hambrick (2007) argues that since leaders are the decision makers in organizations, their leadership values have profound influence on organizations they lead. Leadership values in an organization therefore have critical importance due to the shaping of behaviour and attitude of managers. A number of researches have confirmed affirmative association between leadership values and results at personal and firm levels in organizations (Zhu, Chew & Spangler, 2005). Haakonsan, Burton, Obel and

Lauridbn (2008) investigated how failure to align organizational climate and leadership style affects performance. According to the results of their study, misalignments of leadership values may result in negative performance consequences.

2.3.6 Organizational Performance

Organizational performance is an indicator which measures how well an enterprise achieves its objectives (Hamon, 2003). Organizational performance is centered on quality of goods and/or services, innovation, employee attraction, employee retention, employee and customer satisfaction, management/employee service and an organization's accountability to society (Delaney & Huselid, 1996). Questions relating to performance of public organizations are based on the expectation that a government should supply public goods and services more effectively and efficiently (Putu, Mimba, Van-Heden & Tillema, 2007).

The business case for organizational performance is expanding its focus from the shareholder-value approach that is based on the single bottom line to the stakeholder approach of overall organizational performance, that is, triple bottom line of sustainability, people and planet (Elkington, 1997). In this approach, organizations typically measure performance in terms of viability, satisfaction at work and among customers and to the well-being and sustainability of the wider social environment. Organizational performance variable in this study was assessed through three nonfinancial indicators based on the triple bottom line approach namely; employee satisfaction, customer satisfaction, and corporate social responsibility as demonstrated by Brady *et al.* (2002).

Measurement of employee satisfaction varies from one organization to the other due to its multi-faceted nature. Some organizations use anonymous employee satisfaction surveys which are administered periodically to measure the levels of employee satisfaction (Wright, Gardner, Moynihan & Allen, 2005). In other organizations, meetings are held between management and small groups of employees where the latter are asked questions pertaining to their satisfaction (Ybema, Smulders & Bongers, 2010). Nonetheless, in other organizations exit interviews are the principal employee satisfaction measurement tools (Schulz, 2001). The import of these approaches lies in the fact that they elicit satisfaction sentiments from employees themselves (Schneider, Hanges, Smith & Salvaggio, 2003). Scholars espouse that satisfaction of people in a firm is determined by the interface aspects like working conditions, policies and procedures, regulations, terms and conditions of service, security of tenure, and

relationship with peers and superiors (Ilies, Wilson & Wagner, 2009; Irving & Montes, 2009; Koonmee, Singhapakdi, Virakul & Lee, 2010). Addressing people issues in an organization is a key factor in enhancing and sustaining satisfaction of employees (Giannikis & Mihail, 2011).

In the current competitive business environment, customer satisfaction is an increasingly important element of a successful organization (Fornell, Mithas, Morgeson & Krishnan, 2006). Increasing competition in the service sector has motivated organizations to invest all possible resources to improve service quality in the eyes of customers (Salanova, Agut & Peiró, 2005). Customer satisfaction expression is commonly used by companies in their customer service charters which signify the manner in which goods and services presented by a company address the anticipation of stakeholders (Neupane, 2014). Organizations conduct surveys on routine basis to gauge customers' level of satisfaction with their products and services. Gilbert and Veloutsou (2006) state that to compete in today's business world, organizations are monitoring customer satisfaction level so that service and product quality can be improved continuously. Availability of customer complaint information to managers and the degree of use of customer feedback to improve product and service quality reveals the level of customer focus in an organization (Yang & Peterson, 2004). Several studies have reported a strong link between delivery of high quality products and services and organizational performance through customer satisfaction (Sila & Ebrahimpour, 2005).

Corporate social responsibility (CSR) is the sum of benevolent measures carried out by an institution to attend to societal and ecological consequences of its activities and the apprehensions of persons or groups with direct interest, association or investment in a company (Christensen *et al.*, 2007). Organizational culture reflects the personality or the feel of an organization through well-established ideals, viewpoints and suppositions (Galbreath, 2010). These are espoused and manifested through employee behaviours and decision-making, in addition, they define the proclivity and ability of an organization to conduct business operations either responsibly or irresponsibly (Kalyar *et al.*, 2013; Melo, 2012). Therefore, the course of culture of a firm influences an organization's tendency towards CSR and sustainability. Researchers have established an association between CSR and organizational culture. Greening and Turban (2000) conducted a test to comprehend the CSR – organizational attractiveness relationship. They found that prospective job applicants were

more likely to pursue jobs from socially responsible companies than from companies with poor social responsibility records.

2.4 Empirical Review

This sub-section focuses on empirical review of the study variables. These variables are independent, moderating and dependent variables. The independent variable comprises of four constructs, that is, clan type of culture, adhocracy type of culture, market type of culture and hierarchy type of culture. The moderating variable consists of leadership values while the dependent variable (performance) encompasses employee satisfaction, customer satisfaction and corporate social responsibility.

2.4.1 Clan Culture and Performance of Public Water Companies

Clan culture is a system of beliefs and values of affection, membership, group effort, conviction and support which encourages employees in an institution to show deeds of collaboration and involvement (Cameron & Quinn, 2006). Cameron and Quinn (1999), in their study, investigated the role of culture on performance and success of a firm. The study revealed that each of the four (clan, adhocracy, market and hierarchy) types of firm culture in respect of the CVF model may contribute to organizational success depending on the strategic direction of a firm and the requirements of its stakeholders. Thomas, Marosszeky, Karim, Davis and McGeorge (2002) used Cameron and Quinn's (1999) CVF model and OCAI to assess the project culture of 13 Australian construction projects. The results of the study indicated that clan type of culture was positively correlated with quality outcomes. Fey and Denison (2003) conducted a study using Russian companies and compared its results to those obtained in similar studies in USA. In general, they concluded that involvement (clan culture) and adaptability (adhocracy culture) of companies with a flexible orientation were the most relevant traits of effectiveness in the Russian context whereas in the USA context, mission (market culture) trait was important.

Felipe, Roldán and Leal-Rodríguez (2017) conducted research to study the effect of culture values of a firm values on organizational agility on 172 Spain-based enterprises. The research results indicated that clan type of culture had an affirmative link with enterprise performance. Aketch, Basheka and Bagire (2017) undertook research on culture of a firm and performance of SMEs in Uganda: a case study of hotel sector. The rationale of the investigation was to investigate the influence of organizational culture on the productivity of SMEs in Uganda.

Data was collected from 112 hotels in the eastern part of Uganda. This study unlike majority of other studies included both managers and employees as participants. Denison and Mishra's (1995) cultural dimensions of involvement (clan culture), consistency (hierarchy culture), adaptability (adhocracy culture) and mission (market culture) were utilized for the study. In respect of the aspects of culture that makes significant contribution to organizational performance, it was found that apart from mission trait (market culture); involvement trait (clan culture) was a significant predictor of performance of SMEs unlike adaptability (adhocracy culture) and consistency (hierarchy culture) traits.

2.4.2 Adhocracy Culture and Performance of Public Water Companies

Chan, Shaffer and Snape (2004) tested the part played by culture of a firm as a mediating variable on the effect of high performance human resource practices on firm performance among 82 Hong Kong and foreign companies in Hong Kong. Organizational culture was measured by involvement (clan) culture, member conformity (hierarchy) culture, policy adaptability (adhocracy) culture and mission (market) culture adapted from Denison and Mishra (1995). Using matched data from senior executives and human resource managers, the researchers tested the direct and interactive effects of high-performance human resource interventions and firm culture on performance of an organization. On the side of firm performance measurement, the study focused on two factor approaches, which were perceived organizational performance and perceived market performance. The findings indicated that particular proportions of culture of a firm and high-performance human resource practices do interact to impact on firm performance. The findings also indicated that adaptability (adhocracy) and involvement (clan) types of culture were significantly and positively correlated with organizational performance.

Tseng (2010) undertook a study on the relationship between culture of a firm and information change on organizational productivity. The study examined the association between culture of a firm and information change on corporate performance under a Chinese-centric set of societal, cultural and linguistic attitudes and behaviours. The results of the study indicated that adhocracy type of culture enables knowledge conversion and enhances organizational productivity compared to hierarchy culture and clan culture. Zhang and Zhu (2012) undertook a study to examine the association between culture of a firm and firm productivity in 25 ventures of 9 regions in China. Empirical investigation was utilized to evaluate the four CVF (clan, adhocracy, market and hierarchy) kinds of culture on enterprise productivity. The

outcome of the investigation revealed that: market and adhocracy types of firm culture had affirmative effect on business productivity and sales outcome; hierarchy and clan categories of firm culture did not have affirmative consequence on company efficiency but market and adhocracy categories of enterprise culture had a considerable consequence on firm productivity.

Naranjo-Valencia *et al.* (2016) undertook a study on the association between culture of a firm, novelty, and performance in Spanish industrial companies. They investigated the function of culture of an enterprise, as a dynamic that can mutually inspire or hold back novelty and consequently have an effect on performance of an enterprise using the cultural dimensions and typologies identified in the CVF model. The population comprised of Spanish organizations with more than 15 employees located in southeast Spain. It was designed to cover a range of industries, excluding those in the agricultural sector. Information was collected through face-to-face interview with the companies' CEOs. The outcome demonstrated that culture can promote novelty of an enterprise in addition to its performance, or it could as well be an impediment for both of them, based on the ideals upheld by the culture. It was in addition established that adhocracy type of culture was the unsurpassed performance predictor. The study by Felipe *et al.* (2017) revealed a positive effect involving adhocracy type of culture and firm productivity. This is in line with prior related studies that have labelled agile organizations as highly adaptive and flexible. This finding also fits with prior studies' empirical support of adhocracy culture being an important precondition for organizational performance success (Matzler, Abfalter, Mooradian & Bailom, 2013).

2.4.3 Market Culture and Performance of Public Water Companies

Thomas *et al.* (2002) used the CVF model's OCAI tool of Cameron and Quinn (1999) to assess the project culture of 13 Australian construction projects. The results indicated that market cultures which are more common in construction projects were found to be negatively correlated with quality outcomes. Fey and Denison (2003) conducted a study using Russian companies and compared its results to those obtained in similar studies in USA. In general, they concluded that whereas in the USA context, mission (market) culture was important, adaptability (adhocracy) culture of companies with a flexible orientation was the most relevant trait of effectiveness in the Russian context.

Xenikou and Simosi (2006) studied a sample of Greek organizations and they concluded that the achievement orientation (market culture) and organizational norms that promote goal setting, productivity, and effectiveness were related to high performance. The study conducted in Japanese companies (Tokyo) by Deshpande, Farley and Webster (1993) revealed that the market type of firm culture had a considerable affirmative association with better business output. Adhocracy kind of organizational culture had a modest affirmative relationship with enhanced firm productivity whereas hierarchy and clan types of firm culture were associated with poor performance.

Dadzie, Winston and Dadzie (2012) undertook a study on corporate culture, competitive approach, and performance in Ghana. The study examined the influence of competitive approach on culture of a firm and productivity relationship of companies in Ghana. The outcome of the investigation showed proof of both deviating and undeviating impacts of firm culture on organizational performance. Companies with a predominantly market type of firm culture or clan type of firm culture were to a greater extent probably to be expressly linked with productivity, whereas companies with adhocracy type of firm culture or hierarchy type of firm culture were more probably to be indirectly associated with performance, depending on their alignment with a differentiation strategy or cost leadership strategy.

Haggalla and Jayatilake (2017) conducted a study on organizational culture and turnover intention in international information technology companies in Sri Lanka. The findings indicated that there was an association linking culture of a firm and turnover intention in the Sri Lankan information technology sector. The study also revealed that market culture was the principal kind of organizational culture involving the four (clan, adhocracy, market and hierarchy) categories in respect of the CVF model. In a study conducted by Aketch *et al.* (2017), on organizational culture and performance of SMEs in Uganda, it was found that apart from involvement (clan) culture, mission trait (market) culture was a significant predictor of performance of SMEs unlike adaptability (adhocracy) and consistency (hierarchy) types of culture.

2.4.4 Hierarchy Culture and Performance of Public Water Companies

Acar and Acar (2014) undertook a study on organizational culture types and their effects on organizational performance in Turkish hospitals. Data was collected from 512 employees of 99 hospitals of major cities in Turkey. According to the descriptive statistics, it was found that

the leading type of firm culture in the Turkish healthcare industry was hierarchy and it was followed by market and clan cultures respectively. Felipe *et al.* (2017) examined the effect of firm culture ethics on organizational agility on 172 Spain-based companies. The study, contrary to expectations did not find a negative link between hierarchy culture and organizational agility but a positive significant effect. According to the researchers, this finding was certainly unexpected and suggested that certain features inherent to hierarchy culture lead to more agile organizations.

Panuwatwanich and Nguyen (2017) investigated the effect of culture of a firm on total quality management (TQM) execution and firm performance: evidence from the Vietnamese construction sector. The major rationale for this study was to examine the link involving culture of a firm and TQM, and the influence of TQM implementation on organizational performance improvement within the context of the Vietnamese construction industry. A survey was conducted with 104 respondents from Vietnamese construction enterprises. Results of the investigation showed that Vietnamese construction companies were dominated by hierarchy and clan types of culture.

2.4.5 Leadership Values and Performance of Public Water Companies

A moderating variable, also called a moderator variable is a qualitative or quantitative variable that has influence on the potency and/or trend of the association linking the dependent and independent variables (Aguinis, Edwards & Bradley, 2017). According to Ro (2012), a moderator variable may be naturally occurring, measured or determined variables or can artificially be created by manipulation of conditions. A moderating variable in effect acts like the second independent variable. Much of the interest in the areas of leadership and culture of a firm is founded on explicit and implicit claims that both leadership values and culture are linked to organizational performance (Ogbonna & Harris, 2000). A number of researches have revealed affirmative linkages among values of leadership and results at personal and firm levels (Zhu *et al.*, 2005). The values of a leader in an organization have significant importance due to shaping behaviour and attitude of a leader (Aktas *et al.*, 2011).

Berson *et al.* (2008) conducted a study which examined the relationships between leadership values (self-direction, benevolence and security), organizational culture and firm performance (sales growth, efficiency and contentment of employees). In support of the researchers' hypotheses, leadership self-directive values were associated with innovation-oriented

(adhocracy) cultures, security values were associated with bureaucratic (hierarchy) cultures and benevolence values were related to supportive (clan) cultures. In turn, cultural dimensions showed differential associations with subsequent company sales growth, an index of organizational efficiency and assessments of employee satisfaction.

Giberson *et al.* (2009) conducted a study on leadership and culture of an organization: linking CEO characteristics to cultural ethics. The aim of the investigation was to empirically examine organizational culture theorists' assertions about the linkages between leadership and the cultures that emerge in organizations they lead. Specific hypotheses were developed and tested regarding relationships between leaders' personality traits, and the cultural values that are shared among their organizations' members. Exploratory analyses indicated that several leadership values were related to culture values. The study therefore provided evidence that leadership characteristics are felt throughout an organization by impacting the norms that sanction or discourage member behaviour and decision making, and the patterns of behaviour and interaction among members.

Huysentruyt *et al.* (2015) conducted a study on values, management style and firm performance: evidence from social enterprises in Europe. Their study explored the possibility that leaders' personal values help shape their management style, which in turn help drive organizational performance. Furthermore, they investigated indicators of organizational performance beyond financial performance, namely performance in terms of social impact. Data was collected from CEOs across various industries and five countries in Europe. The researchers mainly focused on CEO personal values in place of traits. The outcome of the investigation showed that participatory leadership was negatively related to self-enhancement values; while CEOs openness to change values was positively related to an organization's strategic orientation towards entrepreneurship. The researchers also found evidence that leadership values influence management practices that are highly consequential for an organization's success in terms of all social, financial and innovation performance. Past research demonstrates that, while values and traits both capture stable aspects of a leader's character, values predict choices and decision making better than traits (for example, Roccas, Sagiv, Schwartz & Knafo, 2002; Schwartz, Caprara & Vecchione, 2010).

2.4.6 Organizational Performance

Several empirical studies have investigated the association among culture of a firm and productivity and generally provided support for this relationship (Yesil & Kaya, 2013). In a study, Oparanma (2010) established that culture of a firm is a momentous feature to be taken into consideration while organizational performance is being assessed. Zheng *et al.* (2010) reported an affirmative impact of culture of a firm on performance of an enterprise. A study conducted by Duke II and Edet (2012), revealed that there was an affirmative relationship between firm organizational culture and productivity.

Firm culture positively influences employee satisfaction when it provides employees with abilities to make decisions, strengthen their skills, encourage teamwork and have trust and high morale (Park & Kim, 2009). Silverthorne (2004) found that the bureaucratic (hierarchy) organizational culture resulted in the least levels of work contentment, whereas the utmost creative (adhocracy) culture and a compassionate (clan) culture recorded leading point of members of staff work contentment and dedication to the organization. Lund (2003) conducted a study on the consequence of the categories of firm culture on work contentment in an assessment of marketing specialists in a sample of companies in USA. The results indicated that work contentment was affirmatively associated with adhocracy and clan types of firm culture, whereas hierarchy and market types of firm culture revealed negative association.

Zavyalova and Kucherov (2010) in their study found that organizations with diverse sorts of culture vary in the degree of work contentment of staff members. According to their data, market culture mainly creates the conditions for the satisfaction of self-affirmation needs; hierarchic culture, for the satisfaction of cooperation and safety needs; clan culture, for the satisfaction of respect needs; adhocracy culture, for the satisfaction of self-actualization needs. Tsai (2011) reported an affirmative relationship between culture of a firm and work contentment. The association between culture of a firm and work contentment is also supported by other studies conducted in different countries by researchers such as Bellou, (2010); Park and Kim, (2009) and Lok and Crawford, (2004).

Putriana, Wibowo, Umar and Riady (2015) investigated the effect of culture of a firm on work contentment, dedication to a firm and work productivity on Japanese motorbike companies operating in Indonesia. The intention of the research was to undertake an investigation on the

association of culture of a firm on workers' contentment and dedication, work contentment on firm dedication and culture of a firm, work contentment and firm dedication to work productivity. Information was obtained from 214 employees of major Japanese motorcycle manufacturers in Jakarta. The outcome revealed that culture of a firm is affirmatively and considerably linked to workers' contentment and organizational dedication.

El Badawy, Kamel and Magdy (2016) investigated the link between culture of a firm, work contentment and firm citizenship conduct. The investigation explored the interface between culture of a firm, firm citizenship behaviours and workers' contentment. Results showed positive significant correlations between the four categories of culture in respect of the CVF model, workers' contentment and citizenship behaviour individually. Liu, Tso, Yang and Guan (2017) conducted a study at various levels on examination of workers' contentment on dedication to culture of a firm in Chinese companies belonging to the government. The investigation examined the impact of workers' contentment and demographic pointers on workers to firm culture at the company level. The outcome revealed that using chain of command line representation can considerably enhance the descriptive influence of workers' contentment aspects on dedication to firm culture by means of nested company appropriate variables.

Chipunza and Malo (2017) investigated culture of a firm and work contentment amongst educational experts at a university of technology in South Africa. The investigation's principal goal was to establish perceptions of culture of a firm and their impact on employee job satisfaction among academic professionals at the University of Technology in the Free State Province, South Africa. The study's respondents had positive perceptions in respect of firm culture with academic professionals showing satisfaction with co-worker relations, supervision, job performance and fair contentment with the existing progression openings. A significant correlation was also established involving generally firm culture and work contentment of staff members.

Many studies have revealed that an organization's culture has a close connection to its performance (Denison, 1990; Kotter & Heskett, 1992). However, only a few of them have investigated the association linking the uniqueness of a firm's culture and customer satisfaction aspect of organizational performance (for example, Conrad, Brown & Harmon, 1997). Gillespie, Denison, Haaland, Smerek and Neale (2008) conducted a study on linking

organizational culture and customer satisfaction: results from two companies in different sectors. The target of the research was to investigate the association involving firm culture and contentment of clients using business-unit data from two different companies. The first study examined 32 regional markets of a residential home-building company with locations across the United States of America. The second study examined 148 American automobile dealerships. The Denison organizational culture survey was used to measure organizational culture, while customer satisfaction data were collected from customers themselves by independent third parties. With a few exceptions, the culture measures related significantly to customer satisfaction, explaining 28% of the dissimilarity in the markets of construction of homes and 11-28% of the deviation pertaining to the auto dealerships.

Beidokhti and Ghaderi (2011) conducted an investigation involving firm culture and client contentment in respect of a bank in Iran. The purpose of the investigation was to examine the association of firm culture using Denison's model of four dimensions of participation (clan culture), consistency (adhocracy culture), conformity (hierarchy culture) and mission (market culture) and customer satisfaction in the banking industry in Iran. Research findings indicated the existence of positive considerable association linking firm culture and client contentment. Setyaningrum (2017) investigated the association involving servant leadership in firm culture, firm dedication, organizational citizenship behaviour (OCB) and client gratification. The intention of the research was to examine the effect of servant leadership on firm culture, firm dedication, OCB, and client contentment. The investigation in addition examined the effect of culture of a firm, firm dedication, and OCB on customer satisfaction. Data was obtained from 240 handcraft customers in the community of handcraft craftsmen in Bekasi Regency in Indonesia. The results showed that servant leadership correlated significantly with organizational culture; servant leadership was significantly related to OCB; OCB had a considerable association with firm dedication; servant leadership had a considerable association with client contentment; and firm dedication had a major correlation with customer satisfaction. It was therefore concluded that servant leadership can have a direct relationship with customer satisfaction, and servant leadership can influence organizational culture.

Jaakson, Vadi and Tamm (2009) undertook a study on culture of an organization and CSR on Estonian service companies. The aim of the investigation was to examine Estonian service companies with a view to ascertaining the relationship between firm culture

and CSR. Results of the study could not statistically confirm the hypothesis that strong organizational culture characterizes higher CSR performers, but they were inconclusive in this respect. On the other hand, there was no evidence that organizations with higher CSR were more relationship-oriented than task-oriented; however, relationship orientation was more strongly correlated with most CSR elements.

Gorondutse and Hilman (2016) conducted a study on the moderating effect of organisational culture on the dedication to CSR and the productivity of SMEs based in Nigeria. It specifically examined the moderating effect of an inventive and compassionate firm culture. An inventive and compassionate firm culture was found to be significantly related to performance, and moderated the association involving dedication to CSR and performance of SMEs.

Lee and Kim (2017) undertook a research to explore organizational culture's moderating role of CSR on firm performance: focused on corporate contributions in South Korea. The aim of the investigation was to study the function of firm culture in assisting to transform CSR into organizational productivity. The investigators in addition studied the moderating effect of firm culture on the CSR–organizational productivity relationship. The results of the study suggested that some organizational cultures moderate the relationship between CSR and financial outcomes, and that organizational culture may play an important role in enhancing a positive relationship between CSR and firm performance.

2.5 Critique of Literature

An assessment of theoretical and empirical literature concerning firm culture and productivity displays differing viewpoints. According to Latham (2004), goal setting has been found to inspire individuals and is a critical key to self-management. However, problems can arise when two existing goals conflict or one goal receives priority over another. Goal conflict can have detrimental effect on organizational performance if it motivates discordant achievement drift. Moreover, if employees lack skills and competencies to perform actions essential for achievement of a goal, then application of goal theory can fail and lead to undermining of performance (Baran, 2012). Another inadequacy of the goal theory that can occur is commonly referred to as tunnel vision (Simons & Chabris, 1999). This is when employees focus so fixedly on their goals that they will neglect other facets of their job. Concentrating

too much on a specific task or goal can cause employees to miss a major aspect in their workplace.

The stakeholder theory integrates the criterion of performance for each group or constituency within or outside the organization that has a stake in an organization's performance. Each type of organizational constituency is supposed to have different interests vis-à-vis the organization. However, members within a given category are not at all homogenous; often quite the contrary, and, so far, stakeholder theory has largely ignored intra-stakeholder heterogeneity (Harrison & Freeman, 1999). Stakeholder groups and subgroups may also have multiple interests and multiple roles (Winn, 2001). Another limitation of the theory is assignment of proper weights to stakeholders to indicate the relative importance of satisfying their goals (Tsui, 1990).

There are some limitations to the reviewed empirical studies which pose a challenge to drawing solid conclusions on the possibility of a causal link between firm culture and productivity. These procedural restrictions which can probably result to augmentation of the relationship among variables include the number of respondents and their role in an organization, research design, and execution and interpretation of examination. The manner in which organizational culture dimensions are measured is a shortcoming in the field of research. Data are very often obtained through a single person or few respondents; mostly CEOs or managers within each organization. A number of studies, for example, Denison and Mishra (1995), Gordon and DiTomaso (1992), Kotter and Heskett (1992) evaluated organizational culture by using only managers or executives. This has been heavily criticized by a few scholars (Abu-Jarad, Yusof & Nikbin, 2010). For instance, Ashkanasy, Wilderom and Peterson (2000) argued that to study organizational culture, it is imperative that researchers investigate all levels of an organization. Zheng *et al.*, (2010) recommend usage of multi-informants to assure more reliable and valid measures.

Most of the empirical evidence reviewed consists of researches with cross-sectional methodology. In contrast to longitudinal designs, a cross-sectional methodology makes it easier to include a larger sample, which in turn enhances the generalizability of the research findings. However, cross-sectional designs create poor basis for drawing causal conclusions. Ghorbanhosseini (2013) suggests that a longitudinal study should be embraced. Abu-Jarad *et al.* (2010) recommend adoption of longitudinal design to facilitate making of inference in

respect of contributory associations between the two purposes of culture of a firm and productivity. Additionally, the majority of assessed researches have not used moderating variables to investigate the association between culture of an organization and productivity. The investigation by Zheng *et al.*, (2010) has revealed that assessing the sheer straight association between culture of an organization and performance is not enough, thus, the need for moderating variables.

2.6 Research Gaps

Theoretical and empirical studies reviewed revealed a relationship between the four constructs of culture of an organization based on the CVF model and firm performance. Despite a lot of literature on the four study variables, there is inadequate literature, if any, on public water companies in Kenya. Amongst the studies assessed, very few, if any, have studied the influence of the four CVF model culture types on performance of the water companies owned by County Governments in Kenya.

Majority of the studies reviewed considered mainly single respondents in terms of managers and executives/owners in assessing the association between culture of a firm and its performance. This is a constraint as the investigation of the impact of firm culture on performance is best investigated among all employees of a firm, embodying all levels of staff in respect of an entire organization structure of a firm (Aketch, 2015). This study addressed this gap by using respondents of all cadres from each water company that was surveyed to minimize the common method bias associated by single respondents.

Most of the previous studies have also adopted limited scope in measuring the variable of organizational performance, mostly from the financial perspective (Chahal, Jyoti & Rani, 2016). Less interest has been accorded to investigating the variable in public service industry from stakeholders' perspective using measures such as CSR. Business no longer exists just to make money; the well-being of employees, communities and the planet is inevitably tied to the performance of an organization (Santos & Brito, 2012). There are a few studies that have used the balanced scorecard model developed by Kaplan and Norton (1996) to measure organizational performance from perspectives such as customer, internal business processes and learning and growth. However, these studies have overlooked the dimension of CSR perspective yet; it is directly linked to the concept of sustainable development integrating economic scenario, social obligations and environmental requirements in its operations.

Enhanced and sustainable organizational performance by way of provision of affordable and safe water in adequate quantities is critical to Kenya's socio-economic development. In general, majority of the researches on the association of culture of an organization and firm performance have been undertaken in developed economies (Ali *et al.*, 2017; Yesil & Kaya, 2013) where the setup and work environment may not be the same as that in Kenya; thus challenging their generalizability to a non-Western context. Secondly, there is limited information on organizational culture on performance of the water companies owned by County Governments in Kenya. Thirdly, not much consideration in terms of research has been accorded to the effect of culture of an organization on firm performance especially in a non-profit public service industry such as the water sector where the mode of operation and management may be different from the commercial public sector or private sector. To fill these gaps and add some information to the prevailing body of knowledge on this subject matter, it is imperative to undertake an investigation in a different environment especially Africa and particularly in Kenya. Due to inadequate information on the subject matter, this study therefore sought to investigate the influence of organizational culture on performance of public water companies from a Kenyan perspective.

2.7 Summary of Literature

In this chapter, the relevant theories on organizational culture that informed the conceptualization of the independent variables of this study have been reviewed. A conceptual framework that integrates the four variables of organizational culture performance as well as relevant empirical literature has been presented. The four independent variables in respect of culture of an organization were reviewed based on the CVF model. Studies undertaken previously by other researchers on how a culture of an organization affects its performance have also been reviewed. Reviewed empirical literature indicates that organizational culture is related to organizational performance thereby supporting the study objectives. However, there is inadequate literature on the influence of organizational culture on performance public water companies in Kenya. Among the studies reviewed, not many, if any, have investigated the influence of the four CVF model culture types on performance of public water companies in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter deals with the study methodology used to examine the influence of organizational culture on performance of public water companies in Kenya. The chapter deals with research design, target population, sampling frame, sample size and sampling technique; data gathering instruments, data gathering procedure, pilot testing, data analysis and presentation and ethical consideration. The statistical measurement model used in analyses and tests for hypotheses are also presented.

3.2 Research Design

According to Kothari (2004), research design is a plan, a roadmap and blueprint strategy of investigation conceived so as to get information on study questions. The choice of a research design is directed by the intention of the investigation, the kind of study, the duration within which information is to be gathered and the nature of evaluation to be undertaken (Sekaran, 2003). The study plan of an investigation thus determines the investigation category, investigation questionnaire and methods of evaluation (Groves, 2011).

The study adopted random sampling technique due to the homogeneity of the population to select a sample of 17 public water companies with a statistical sample of 185 employees in all cadres, that is, top management, middle management and the operatives. This is because all employees in an organization are affected by an organization's culture as it influences their behaviour. The study further adopted descriptive and correlational research design. Descriptive research design depicts analytically a condition, observable fact, plan of action; or gives data about, or expresses feelings to a subject (Kumar, 2011). Descriptive research is therefore used to obtain information concerning the current status of a phenomenon and to describe what exists with respect to variables or conditions in a situation (Kothari, 2004). Conversely, a correlational research design endeavours to ascertain the existence of an association involving two or more facets of a phenomenon (Creswell, 2012). The rationale for a correlational investigation is to establish whether two or more variables are related (Cooper & Schindler, 2014).

3.3 Research Philosophy

Research philosophy according to Saunders, Lewis and Thornhill (2007) refers to the development of study milieu, study knowledge and its character. They additionally aver that research philosophy can be defined with the aid of a research paradigm. Cohen, Manion and Morrison (2007) define a research paradigm as the wide-ranging structure which consists of views, attitudes and comprehension of a number of theories that are utilized to carry out a research. A paradigm can therefore be exemplified as a defined course of action which entails a variety of stages through which a researcher generates an affiliation linking research intentions and questions.

There are three main types of research paradigms namely; interpretivism, realism and positivism. According to the interpretivism technique, researchers grant significance to their viewpoints and ideals for validation of a research problem (Easterby-Smith, Thorpe, & Jackson, 2008). In the realism technique, two major practices are direct and critical realism (McMurray, Pace & Scott, 2004). Direct reality implies what an investigator experiences and views. Conversely, in critical realism, investigators discuss about their experiences for a particular situation (Sekaran & Bougie 2010).

Interpretivism and realism research paradigms were not used in this study. This is because interpretivism paradigm is used in a study whereby researcher wants to understand and interpret the meanings in human behaviour rather than to generalize and predict causes and effects (Neuman, 2006). For the realism paradigm, it is best suited mainly for qualitative methods such as case studies and convergent interviews since its aim is to generalize to theoretical propositions and not to populations (Sobh & Perry, 2006).

Positivism research paradigm which is directly related to the notion of objectivism was utilized for this study. In this type of approach, researchers provide their standpoint to assess social world with the aid of impartiality instead of prejudice (Cooper & Schindler, 2014). The positivist position is characterized by the testing of hypothesis developed from existing theory (hence deductive or theory testing) through measurement of observable social realities (Hatch & Cunliffe, 2006). This position presumes that theoretical models can be developed that are generalizable, can explain cause and effect relationships, and which lend themselves to predicting outcomes (Easterby-Smith *et al.*, 2008).

Positivism is based on facts gathered through direct observation and measured empirically using quantitative methods and statistical analysis (Eriksson & Kovalainen, 2008; Saunders *et al.*, 2007). The fundamental difference between positivism and other paradigms lies in the realm of theory whereby data within positivism is theory-driven and designed to test the accuracy of the theory (May, 2001). Predictions can thus be arrived at on the premise of the previously observed and explained realities and their inter-relationships.

3.4 Target Population

Mugenda and Mugenda (2003) define target population as that population to which a researcher wants to generalize the results of a study. Kombo and Tromp (2009) define the target population as a grouping of persons, entities or articles from which samples are taken for measurement. The target population for this study consisted of all the 84 licensed public water companies in Kenya according to the list obtained from the Water Services Regulatory Board (2016) as shown in Appendix III. The companies in total had 9,494 employees (WASREB, 2016). For water companies to effectively achieve their mandate for greater public good, the abilities of all employees working in these organizations need to be optimized through effective management practices. This study therefore targeted employees in all cadres in the water companies that were sampled. Ordinarily, due to numerous limitations a researcher is not concerned about an entire population but a target population with characteristics which can be generalized to the entire population and meet set criteria of interest (Mugenda & Mugenda, 2003).

The sample consisted of seventeen public water companies namely: Murugi Mugumango, Embe, Naivasha, Kiambu, Narok, Malindi, Ruiru Juja, Kirinyaga, Yatta, Nakuru Rural, Isiolo, Amatsi, Kyeni, Kapsabet Nandi, Mbooni, Gatanga, Nolituresh and Loitoktok. The respondents were 1,041 top level managers, middle level managers and operatives working in these companies. The information on the number of top level managers, middle level managers and operatives for each public water company was provided by the respective Head of Human Resource Department. Table 3.1 provides the details of the top level managers, middle level managers and operatives for each of the sampled public water companies.

Table 3.1 Target Population

Water Company	Top Management	Middle Management	Operatives	Total
1. Murugi Mugumango	5	6	18	29
2. Embe	4	4	12	20
3. Naivasha	6	13	32	51
4. Kiambu	6	12	33	51
5. Narok	6	8	23	37
6. Malindi	11	21	98	130
7. Ruiru Juja	5	11	31	47
8. Kirinyaga	12	26	123	161
9. Yatta	5	6	15	26
10. Nakuru Rural	10	24	108	142
11. Isiolo	5	12	43	60
12. Amatsi	5	12	44	61
13. Kyeni	5	8	20	33
14. Kapsabet Nandi	4	6	18	28
15. Mbooni	5	5	11	21
16. Gatanga	5	11	42	58
17. NolTuresh Loitoktok	7	21	58	86
Total	106	206	729	1,041

Source: Respective Public Water Companies (2018)

3.5 Sampling Frame

A sampling frame is an entire record of all features of a population an investigator hopes to investigate (Kothari, 2004). It contains all the elements that can be sampled and may include individuals, households, or institutions (Särndal, Swensson & Wretman, 2003). The sampling frame for this study comprised of 84 licensed public water companies (WASREB, 2016). The record of authorized public water companies maintained by the Water Services Regulatory Board was used to pick the study sample. The sample drawn from the sampling frame was composed of employees at the top management, middle management and operative levels.

3.6 Sample Size and Sampling Technique

A sample, as defined by Cooper and Schindler (2014) is a portion of the entire population of concern and it is supposed to possess the attributes of the population to be studied. A sample size is an important feature of any empirical study in which the objective is to make references about a population from a sample (Kothari, 2004). Sampling is the selection of a subset of

individuals from within a population, particularly for the intention of making predictions based on statistical inference (Saunders *et al.*, 2007). The purpose of sampling is to gain an understanding about some features or attributes of the whole population based on the characteristic of the sample (Cooper & Schindler, 2014).

There are many approaches to establishing a sample size (Singh & Masuku, 2012). The dimension of a sample is a utility of the variation in the population (Sekaran, 2003). This is guided by a number of principles such as; dispersion, desired precision and error range. A sample of water companies which were the primary sampling units for this study was chosen by means of simple random sampling method. According to Orodho (2009), simple random sampling ensures that all units in the identified population have an identical and sovereign likelihood of being chosen as an affiliate of the sample. He further argues that random samples yield research data that can be generalized to a larger population within margins of error that can be determined statistically. On the sampling frame, each water company was assigned a unique number and a table of random numbers was used to select 17 companies, which formed 20 % of the total (84) authorized public water companies as indicated in Table 3.1. The selected number was above the minimum threshold sample size suggested by Gay (1992) that a sample size of 10 % of the target population is regarded as adequate when the population is small (less than 10,000).

The study population was made up of all employees of the 17 sampled public water companies so as to ease in-depth comprehension of the variables. The employees comprised of three job cadres, that is, top management, middle management and operatives. The 17 water companies formed part of the total 84 public water companies licensed by WASREB (2016) with all population characteristics. The sample size determination formula by Nassiuma (2000) was adopted to determine the sample size and calculated according to the following formula:

$$n = \frac{Nc^2}{c^2 + (N - 1) e^2}$$

Where: n is the sample size, N denotes population, c is covariance and e is the standard error.

Nassiuma (2000) asserts that in most surveys, a coefficient of variation in the range of $21\% \leq C \leq 30\%$ and a standard error in the range $2\% \leq e \leq 5\%$ is usually acceptable. Therefore a coefficient variation of 30% and a standard error of 2% were used for the study. The higher limits for coefficient of variation and standard error were selected so as to ensure low variability in the sample and minimize the degree of error. Using the formula illustrated above, a sample size of 185 respondents was computed. The sample size selected represented 17.8% of the accessible population which is above the 10% of the accessible population that is generally recommended for descriptive studies (Mugenda & Mugenda, 2003). Proportionate stratified sampling was then used to establish the figure of respondents in respect of the 17 sampled water companies based on the three subgroups, that is, top management, middle management and operatives. The numbers in each subgroup were computed in a way that the subgroup percentages in the population were reflected in the sample. The resultant sample distribution is illustrated by Table 3.2.

$$n = \frac{1,041 * 0.3^2}{0.3^2 + (1,041 - 1) * 0.02^2} \approx 185$$

Table 3.2 Sample Distribution

Water Company	Top Management	Middle Management	Operatives	Total	Population %
1. Murugi Mugumango	1	1	3	5	2.70
2. Embe	1	1	2	4	2.16
3. Naivasha	1	2	6	9	4.86
4. Kiambu	1	2	6	9	4.86
5. Narok	1	1	4	6	3.24
6. Malindi	2	4	17	23	12.43
7. Ruiru Juja	1	2	5	8	4.32
8. Kirinyaga	2	5	22	29	15.68
9. Yatta	1	1	3	5	2.70
10. Nakuru Rural	2	4	19	25	13.51
11. Isiolo	1	2	8	11	5.95
12. Amatsi	1	2	8	11	5.95
13. Kyeni	1	1	4	6	3.24
14. Kapsabet Nandi	1	1	3	5	2.70
15. Mbooni	1	1	2	4	2.16
16. Gatanga	1	2	7	10	5.41
17. Nolturesh Loitoktok	1	4	10	15	8.12
Total	20	36	129	185	100

3.7 Data Collection Instruments

A researcher needs to develop instruments with which to collect the necessary information (Mugenda & Mugenda, 2003). Primary and secondary data were utilized for the study. Primary data is information initiated by an investigator purposely for addressing a research problem. Secondary data implies second-hand information which is already collected and recorded by any person other than the user for a purpose not relating to a given current research problem. Primary data was gathered by means of a questionnaire that captured the various variables under study.

A questionnaire is a research tool that is utilized to gather data and its purpose is to interpret the research objectives into specific questions and answers for each question to provide data for hypothesis testing (Bulmer, 2004). A questionnaire is generally the instrument utilized for data collection in field research (Creswell, 2002). According to Kothari (2004), the advantages of a questionnaire over other instruments of data collection include; information can be collected from large samples within a short time at a nominal expenditure on the side of the researcher, no opportunity for bias since it is presented in paper form and confidentiality is upheld. Questionnaires also offer respondents the opportunity to express their own views and offer anonymity which helps to produce more candid answers than is possible in an interview (Gay, 1992). Sekaran (2003) further argues that questionnaires intensify independence and accuracy of responses from the respondents.

In order to give respondents freedom to express themselves; the questionnaire for this research had closed and open-ended questions. The open ended questions were aimed at capturing the views of the respondents regarding the variables under investigation. The study espoused the OCAI questionnaire developed by Cameron and Quinn's (1999) as one of the data collection instruments. It was customized to incorporate questions on leadership values (based on the portrait values questionnaire as proposed by Schwartz *et al.*, 2001) and organizational performance.

Secondary data was collected through evaluation of company reports such as employee and customer satisfaction surveys, strategic/business plans, performance contract reports, annual accounts reports, customer service charters, human resource policy and procedures manuals, code of conduct manuals, internal organizational journals, stakeholder workshop reports, Kenya Government reports, reports by the regulator (WASREB, 2016), publications and

review of information from the available websites of the respective public water companies as far as they provided relevant and up to date information. The secondary data collected was used to support the findings on the primary data and present additional information which might have not been provided by the respondents.

3.8 Data Collection Procedure

Self-administered questionnaires were utilized to gather primary data. Three research assistants were engaged and trained to assist in distribution of the questionnaires. The target participants were employees in all cadres in the water companies which were sampled. Drop and pick procedure was used to administer the questionnaires. A letter requesting for permission to undertake research from each of the sampled organizations was sent prior to visiting each organization for data collection (Appendix I).

The study questionnaire was divided into four parts; part 1 was respondent's background, part 2 assessed organizational culture, part 3 assessed leadership values and part 4 assessed the level of organizational productivity. With the assistance of the person in charge of HR Department or other selected representative, respondent employees in each selected company were randomly selected from the ones present at the moment of administering the questionnaires. In total, 185 self-administered questionnaires were administered to the sampled respondents. Departmental measure was used to ensure objective representation of respondents in terms of the job cadres. Respondents were guaranteed of confidentiality of their responses.

3.9 Pilot Testing

A pilot test is an investigation which is carried out on a small group of respondents to make sure the questions being asked in the questionnaire are reliable (Marczyk, DeMatteo & Festinger, 2005). The objective of a pilot test is largely to test run the questionnaire and make use of the responses given to refine it for the main research (Muus & Baker-Demaray, 2007). Furthermore, it detects and addresses weaknesses in the research design and instrumentation as well as difficulties that may be encountered before administering the questionnaire to the targeted respondents. The questionnaire of this study was therefore pretested to ensure clarity and information validity prior to being administered.

The pilot study involved pre-testing questionnaires on employees (respondents) drawn from four public water companies that were part of the target population but not in the sample. The four companies were Limuru Water and Sewerage Company, Mavoko Water and Sewerage Company, Nairobi Water and Sewerage Company and Oololaiser Water and Sewerage Company. The Cooper and Schindler (2014) observe that respondents in a pilot test do not have to be statistically selected when evaluating the soundness and consistency of study tools. Respondents for the pilot study were therefore conveniently selected. In this study, the data collection instrument (questionnaire) was tested on 20 employees, which translates to 11% of the reachable target population to make certain that the instrument was appropriate and operational. Neuman (2006) recommends that a pilot study consisting of at least 10% of the target population should be conducted so as to determine the soundness and consistency of the study tools before undertaking the actual study. Out of the 20 questionnaires that were distributed, 15 were returned for a response rate of 75%. From the pilot test, the researcher was able to understand whether there was any vagueness of some items and if so, consequently adjust them. The outcome of the pilot test was not incorporated in the actual study.

3.9.1 Reliability of Instruments

Reliability denotes the degree to which a scale can reproduce the same measurement results in repeated trials (Bajpai & Bajpai, 2014). This study used the Cronbach alpha (α) to determine the measuring instruments' reliability. Generally, Cronbach's alpha is the widely utilized measure for checking reliability, especially when studies address multiple Likert-type of scale in research (Tavakol & Dennick, 2011). A computed alpha coefficient varies between 1 (denoting perfect internal reliability) and 0 (denoting no internal reliability). Higher alpha coefficient values therefore infer that the scales are more reliable (De Vaus, 2002; Kipkebut, 2010). While there is no consensus among researchers concerning the adequate value of reliability, as a rule of thumb, the widely acceptable Cronbach alpha coefficient should be at least 0.70 (Cooper & Schindler, 2014). Cronbach's alpha is a general form of the Kuder-Richardson 20 (KR-20) formula. The formula is as follows:

$$KR_{20} = (K) (S^2 - \sum s^2) \div (S^2) (K-1)$$

KR_{20} = Reliability coefficient of internal consistency

K = Number of items utilized to measure the concept

S^2 = Variance of all scores

s^2 = Variance of individual items.

3.9.2 Validity of Instruments

Validity refers to the approximate truth of an inference or knowledge claim of a relationship based on evidence that supports an inference as being true or correct (Shadish, Cook & Campbell, 2002). According to Leedy and Ormrod (2010), validity is the capability of a study tool to gauge what it is supposed to measure. They suggest three widely accepted classifications of validity. These are content validity, criterion-related validity, and construct validity. Content validity ensures that measures consist of a satisfactory and representative array of objects that draw on a conception. Content validity can be attained in three approaches as follows: from literature, from qualitative studies and from an opinion of a team of specialists (Leedy & Ormrod, 2010). The test for content validity of the dependent variable as well as the independent variables for this study was based on expert opinion. Views and input from subject matter experts were obtained through interviews with scholars and HRM practitioners and their recommendations incorporated in the revised questionnaire.

Criterion-related validity (or criterion validity) is a term that is used to refer to how well one measure (that is, a predictor) predicts an outcome for another measure of interest (that is, the criterion) according to Burns *et al.* (2017). It thus correlates test results with another criterion of interest and deals with the relationship between scale scores and some specific measurable criterion. This type of validity is used to envisage contemporary performance or potential performance.

According to Mugenda and Mugenda (2003), construct validity is an assessment of the degree to which data obtained from an instrument considerably and exactly describes a theoretical view. It can accordingly be described as the degree to which scores on a test can be accounted for by the explanatory constructs of a sound theory. Construct validity as a measure is said to possess construct validity to the degree that it compares to predicted correlations with other theoretical propositions. For determining construct validity, a set of other propositions are associated with the results received from using a given measurement instrument. If measurements on a researcher's devised scale correlate in a predicted way with other propositions, it can be concluded that there is some construct validity. Construct validity in this study was tested through comparison of the scales used with those applied in related researches including the ones by Cameron and Quinn's (1999) for organizational culture constructs and Schwartz *et al.* (2001) for leadership values constructs.

3.10 Data Analysis and Presentation

Data collected from the field was analyzed qualitatively and quantitatively. First and foremost, the questionnaires were screened to remove the ones that were incomplete or poorly filled and verified to confirm that they were all properly filled. The qualitative data was then converted into quantifiable forms by coding all relevant data followed by systematic assemblage. Statistical Package for the Social Sciences (SPSS) Version 23.0 was utilized for analysis of data to create tables and charts. Descriptive statistics was utilized for analysis of quantitative data in order to create mean, covariance and standard deviation from the responses given by the respondents.

Correlation analysis was done to establish whether there was a relationship linking the independent and dependent variables. This was done through the use of Pearson Correlation that indicates correlation coefficients between variables. Regression analysis was used to test whether the independent variables had any effect on performance of public water companies in Kenya. To explore such, data was collected on the underlying variables of interest and regression analysis done to estimate the quantitative effect of the causal variables upon the variables that they influenced. The statistical implication of the likely relationship was also evaluated. Statistical test included analysis of variance (ANOVA). Response on each item for the open ended questions was put into specific main theme for ease of analysis.

3.10.1 Tests of Assumptions

Regression models describe the relationship concerning dependent and independent variables. They rely upon certain assumptions about the variables used in an analysis and violation of these assumptions can lead to unreliable results (Osborne & Waters, 2002). The assumptions of multiple regression that were assessed in this study included linearity, normality, multicollinearity and heteroscedasticity as described herein below.

i. Linearity

Linearity defines the dependent variable as a linear function of the predictor (independent) variables (Hair, Black, Babin, Anderson & Tatham, 2010). Linearity of relationship as an assumption in multiple regressions therefore denotes the degree to which dissimilarity in the dependent variable is correlated with the independent variable. If linearity is violated, all the estimates of the regression including regression coefficients, standard errors, and tests of statistical significance may be biased (Keith, 2006). Linearity involving the dependent

variable and each independent variable was analyzed by the use of Pearson's product moment correlation coefficient. The analysis allows an investigator to evaluate the potency of linear association between the research variables.

ii. Normality

Normality is the assumption that variables have normal distributions (Osborne & Waters, 2002). This means that errors are normally distributed, and that a plot of the values of the residuals will approximate a normal curve. When scores on variables are skewed, correlations with other measures are attenuated. According to Hoyt, Leierer and Millington (2006) non-normally distributed variables can distort relationships and significance tests and also influence both Type I and Type II errors and the overall accuracy of results. Kolmogorov-Smirnov test and graphical method were used to evaluate the normality of allocation of scores.

iii. Multicollinearity

According to Hair *et al.*, (2010), multicollinearity refers to a situation in which one independent variable is actually a combination of the other variables or when the independent variables are exceedingly correlated. They further argue that the occurrence of multicollinearity among the exogenous latent constructs can potentially affect the approximation of regression coefficients. Multicollinearity distinctively increases the standard errors of the coefficients, which leads to decrease in the prognostic ability of the independent variables on the dependent variable (Tabachnick & Fidell, 2014). Multicollinearity was assessed by means of tolerance and variance inflation factor (VIF) values. According to Keith (2006), tolerance measures the influence of one independent variable on all other independent variables. The author further states that VIF is an index of the amount that the variance of each regression coefficient is increased over that with uncorrelated independent variables. Normally, a tolerance value of below 0.01 or a VIF value greater than 10 reveals serious multicollinearity problem (Hair *et al.*, 2010).

iv. Heteroscedasticity

Heteroscedasticity (the violation of homoscedasticity) is present the moment the magnitude of the error expression differs across values of an independent variable (Pallant, 2010). If the assumption of homoscedasticity is unmet, the data is not appropriate for conducting a test of differences like ANOVA (Antonakis & Dietz, 2011). This because the standard error is central to conducting significance tests and calculating confidence intervals and biased

standard errors lead to incorrect conclusions concerning the worth of the regression coefficients. Furthermore, when heteroscedasticity is marked, it can lead to distortion of the findings and weaken the overall analysis and statistical power of the analysis, which results in an increased possibility of Type I error and erroneous conclusions (Osborne & Waters, 2002). In the study, normal P-P plot and scatter plot were used to test heteroscedasticity. It was checked by visual examination of a plot of the standardized residuals by the regression standardized predicted value. Heteroscedasticity is indicated when the residuals are not evenly scattered around the horizontal line.

3.10.2 Regression Analysis

Multiple linear regression analysis was utilized to measure the association linking the independent variables and dependent variable of the study. Cooper and Schindler (2014) observe that multiple regression analysis indicates whether the individual hypothesis is statistically supported or not. Using the regression equation and taking into account the independent and dependent study variables, hypothesis testing was based on standardized coefficients beta and p value to test whether the hypotheses were to be rejected or not. In line with the objectives and hypotheses of the study, multiple linear regression analysis was calculated using the following regression models:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \dots\dots\dots \text{model for hypothesis 1}$$

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon \dots\dots\dots \text{model for hypothesis 2}$$

$$Y = \beta_0 + \beta_3 X_3 + \varepsilon \dots\dots\dots \text{model for hypothesis 3}$$

$$Y = \beta_0 + \beta_4 X_4 + \varepsilon \dots\dots\dots \text{model for hypothesis 4}$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

$$Y = \beta_0 + \beta_1 X + \beta_1 (X * M) + \varepsilon \dots\dots\dots \text{model test for moderation}$$

$$X = (X_1, X_2, X_3, X_4);$$

Where:

Y = Performance (employee satisfaction, customer satisfaction and corporate social responsibility) as the dependent variable.

X₁ = Clan culture

X₂ = Adhocracy culture

X₃ = Market culture

X₄ = Hierarchy culture

M = Leadership values (self-direction, power and stimulation) as the moderator.

X*M= Moderating effect of leadership values on organizational culture.

B₀ = a constant which is the value of criterion variable when all the predictor variables are 0.

β_{1-n} = the regression coefficients or change induced by X₁, X₂, X₃, X₄ and M on Y.

It ascertains to what degree each of X₁, X₂, X₃ and X₄ separately and with inclusion of M contribute to Y.

ε = Error term

3.11 Ethical Consideration

In the course of undertaking a study, a researcher must take ethical aspects into consideration in order to protect the informants (Bengtsson, 2016). Cooper and Schindler (2014) observe that the goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from the research activities. The study acknowledged the importance of ethical issues in research by ensuring the need to observe the ethical issues of confidentiality, integrity, honesty and respondent's rights such as privacy and freedom of expression while giving information. Written communication seeking permission to carry out research was therefore done and letters dispatched to the targeted respondents in the sampled public water companies. The potential participants were approached individually and given an explanation pertaining to the purpose of the study (only for academic purposes) and the data collection process. They were given ample time to ask questions and address any concerns they had about the process of data collection. It was explained that as their participation was voluntary, refusing to participate would not affect their jobs in the respective companies in any way. Participant's agreement to participate in this study was therefore obtained only after a thorough explanation of the research process.

The respondents were assured that disclosure was not to be made on their identity. As such, the respondents were requested not to indicate their names on the questionnaires. The anonymity and confidentiality of the participants was therefore preserved by not revealing their names and identity in the process of data collection, analysis and reporting of the study findings. Privacy and confidentiality of the interview environment were also managed carefully during the data collection process and data analysis.

CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter deals with the results, analysis and discussion centred on the justification of the research. The aim of the study was to investigate the influence of organizational culture on performance of the public water companies owned by County Governments in Kenya. The independent variable was organizational culture represented by four constructs while the dependent variable was performance. Leadership values were adopted as the moderating variable.

4.2 Response Rate

Data was collected from 17 public water companies owned by the County Governments in Kenya. Out of the 185 questionnaires that were issued to the respondents, 126 were fully filled and returned. This denoted a response proportion of 68% as demonstrated by Table 4.1. A response proportion of above 50% is considered adequate in social science research (Mugenda & Mugenda, 2003). The study's response rate of 68% was therefore deemed satisfactory for analysis and conclusion.

Table 4.1: Response Rate

Variable	Frequency	Percent
Response	126	68
Non- Response	59	32
Total	185	100

4.3 Reliability Results

According to Sekaran and Bougie (2010), reliability is an indication of the constancy with which a tool gauges a conception and supports to estimate the goodness of a measure. Cronbach's alpha was used to assess the reliability of the information gathering tools. The results as illustrated by Table 4.2 indicate that clan culture had a Cronbach's alpha of 0.836, adhocracy culture had a Cronbach's alpha of 0.848, market culture had a Cronbach's alpha of 0.799, hierarchy culture had a Cronbach's alpha of 0.813, leadership values had a Cronbach's alpha of 0.794 and organizational performance had a Cronbach's alpha of 0.719. All the variables thus had Cronbach's alpha coefficients above 0.7. Since the alpha coefficients were

all greater than 0.7, it was concluded that the instruments had an acceptable reliability coefficient and were suitable for the study.

Table 4.2: Reliability Results

Variable	Number of Statements	Cronbach's Alpha	Remarks
Clan culture	7	0.836	Accepted
Adhocracy culture	7	0.848	Accepted
Market culture	7	0.799	Accepted
Hierarchy culture	7	0.813	Accepted
Leadership values	9	0.794	Accepted
Organizational performance	8	0.719	Accepted

4.4 Demographic Information

This section represents the demographic information of the study respondents. It consists of gender, age, highest level of education, position in the company and duration of service of the respondents. Respondents' background information was incorporated in the study on the basis that demographic profile of employees has considerable relationship with organizational performance (Asad-ur-Rehman, Muhammad & Muhammad, 2015).

4.4.1 Gender of Respondents

The gender of the respondents is represented by Figure 4.1. The analysis shows that out of the 126 participants who duly responded, 66 percent were male while 34 percent were female. It thus supports the notion that most positions in the water sector by virtue of being a technical domain in developing countries and especially in Africa are still dominated by males (Maphosa, 2010). Even though the males were the most dominant gender in the public water companies, the analysis shows that the study sought information from a gender balanced viewpoint. Kothari (2004) asserts that a ratio of at least 1:2 in either gender representation in a study is representative enough.

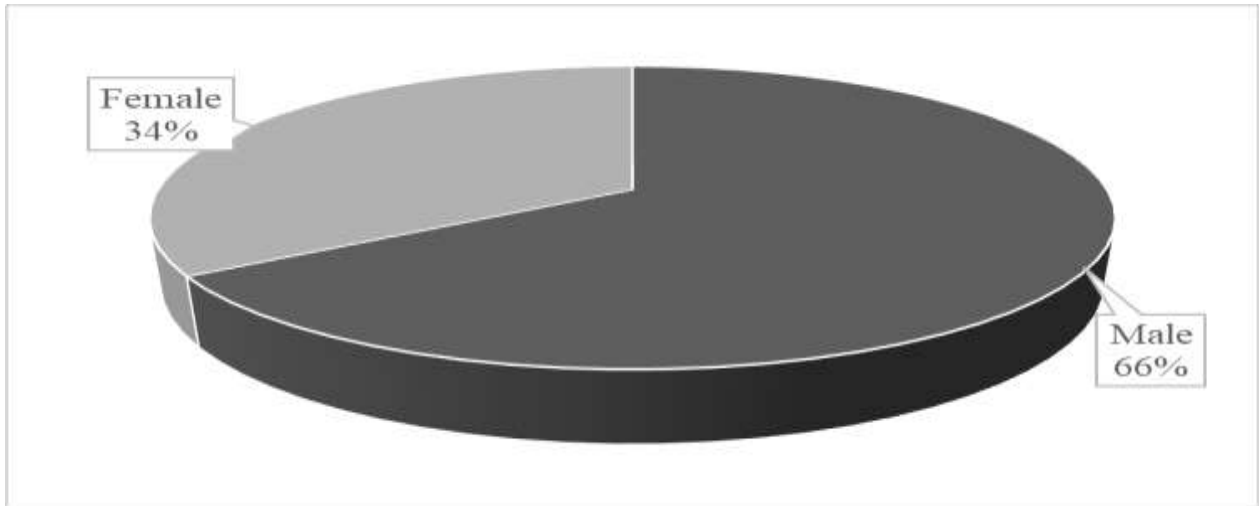


Figure 4.1: Gender of Respondents

4.4.2 Age Bracket of Respondents

Figure 4.2 shows the age bracket of the respondents in the sample size. Respondents were requested to indicate their age group in years. Age groups were classified into four categories: 21-30 years; 31-40 years; 41-50 years and 51-60 years. The survey results showed that 15.1% of the respondents were aged between 21 and 30 years, 31.7% were aged between 31 and 40 years, and 42.1% between 41 and 50 years and 11.1% were aged between 51 and 60. Information on the age of respondents shows that all age groups were well represented as the study was not biased to any single age group and therefore the views of respondents were representative. The majority of the respondents (53%) were aged between 41 and 60 years; that is, they were in their middle and late careers in their respective companies. This indicates that most of the respondents of the public water companies were mature in age such that it was presumed that they took their responsibilities with utmost jurisdiction and would give reliable information.

Regarding age and organizational culture, similar experiences may result in similar interpretation of the organization and its environment, developing a rather uniform view of the organizational culture and performance based on age. Bellou (2007) found that older employees are more likely to recognize the importance of culture. Common experiences based on the age threshold relate to the fact that employees in the middle and late careers were more likely to provide an overall view of what their respective organizations stood for and expected from their members concerning organizational culture and performance.

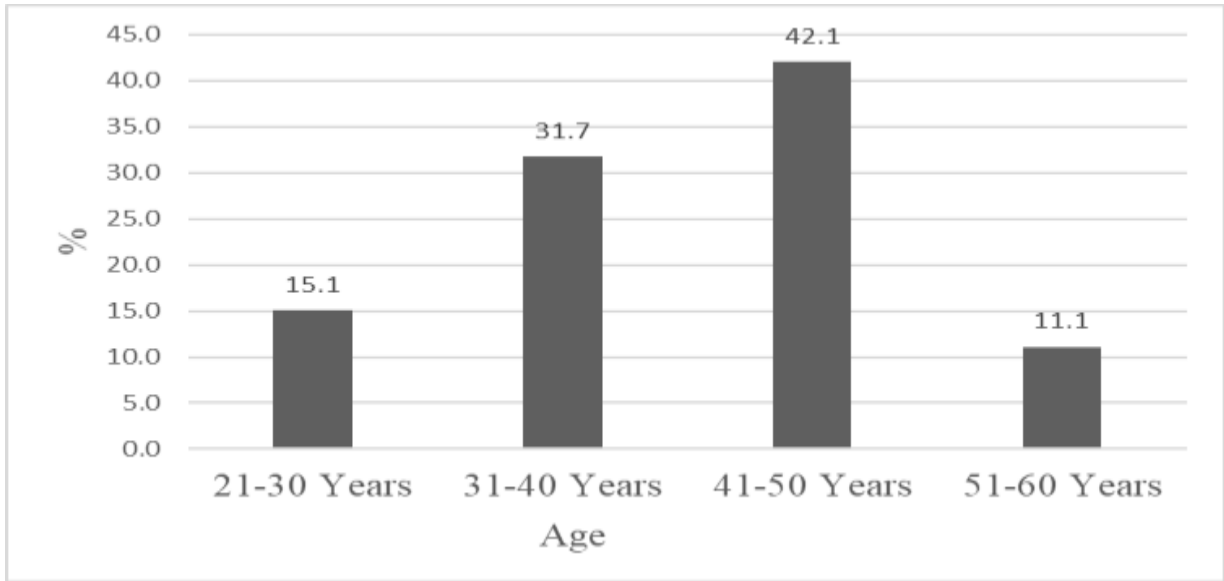


Figure 4.2: Age Bracket of Respondents

4.4.3 Highest Level of Education

The survey findings in Figure 4.3 show that 16.7% of the respondents had high (secondary) school education as the highest qualification, 33.3% had certificate qualification, 27% had diploma qualification, 15.9% had bachelor's degree qualification and 7.1% had master's degree qualification. High (secondary) school certificate education is the basic grade for employment in the public sector in Kenya. The respondents' level of education was considered important in this study because they were required to fill the questionnaire individually. The findings show that all the respondents had secondary level of education and above. This implies that all the respondents were able understand and fill the questionnaires correctly. It also implies that 100% of the respondents had relative understanding of organizational culture and performance in respect of their respective organizations and in addition; they were all able to fill the questionnaires individually and objectively.

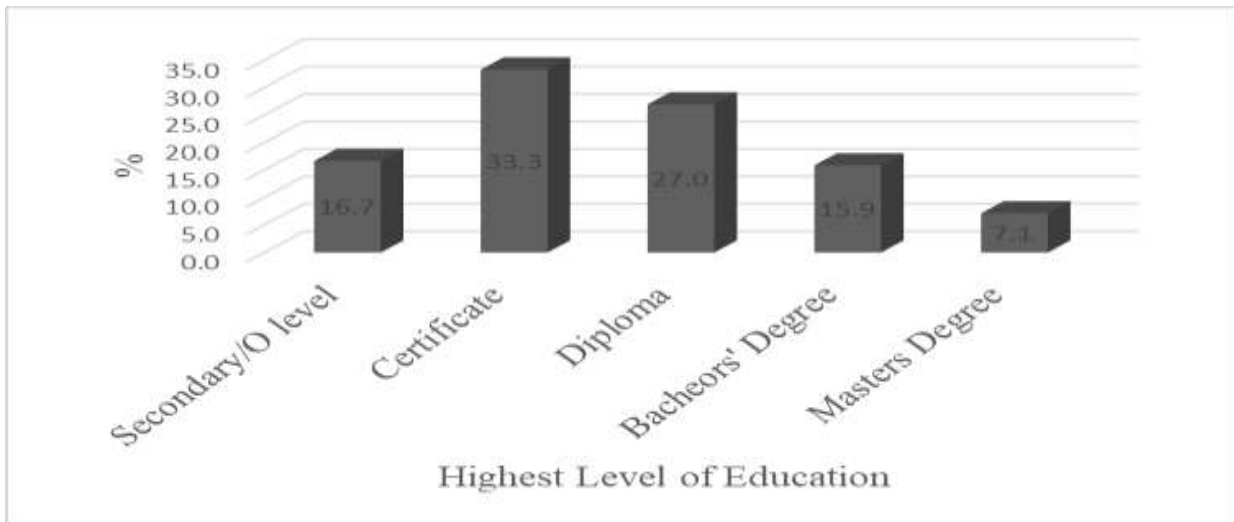


Figure 4.3: Highest Level of Education

4.4.4 Job Category of Respondents

The study targeted various categories of members of staff in the water companies owned by the County Governments in Kenya. Respondents were requested to indicate their job categories which were classified into three cadres: operative, middle management and top management. From the demographic data as shown in Figure 4.4, the findings showed that 69% of the respondents were operative staff, 19% middle management staff and 11.9% top management staff. This shows that respondents were skilled in their line of duty and therefore gave reliable information pertaining to organizational culture and performance of their respective organizations.



Figure 4.4: Job Category of Respondents

4.4.5 Tenure of Service in the Organization

Respondents were asked to indicate how long they had worked in their respective organizations. The findings as illustrated in Figure 4.5 indicate that 15.9% of the respondents had worked for their current companies for less than five years, 23% for 5-10 years, 35.7% for 11-15 years and 25.4% for over 15 years with the same company. These findings imply that 84% of the respondents had been in the service of their respective companies for more than 5 years. It is assumed that the longer employees serve in a firm, the more they understand the organization and hence the higher the ability to articulate issues pertaining to the same (Afande, 2013). The findings therefore mean that the respondents provided valuable responses by virtue of years of service in their respective water companies.

It is predicted that employees' performance and productivity fluctuate according to their level of tenure of service in an organization (Xanthopoulou, Bakker, Demerouti & Schaufeli, 2007). For the tenure of 5-10 years of service, many employees build an opinion that they have achieved adequate experience in their line of work. They begin exploring better opportunities which may negatively affect the hierarchy and adhocracy components of organizational culture in their organizations. From this viewpoint, therefore, tenure of service can be connected to low performance in an organization. In the stage of 11-15 years and above of tenure, the influence of organizational culture among employees is incremental with positive outcome on performance. During this stage, chances for progression in service and reduced opportunity to get employment in other organizations encourage employees to exhibit increased attributes involvement (clan) culture in their allocated responsibilities and to adapt to an organization systems through hierarchy culture. They thus focus on serving their customers effectively through market culture with a view achieving long term goals of the organization. With long tenure of service, employee's flexibility in the organization increases and generally becomes part of their system of beliefs and values.

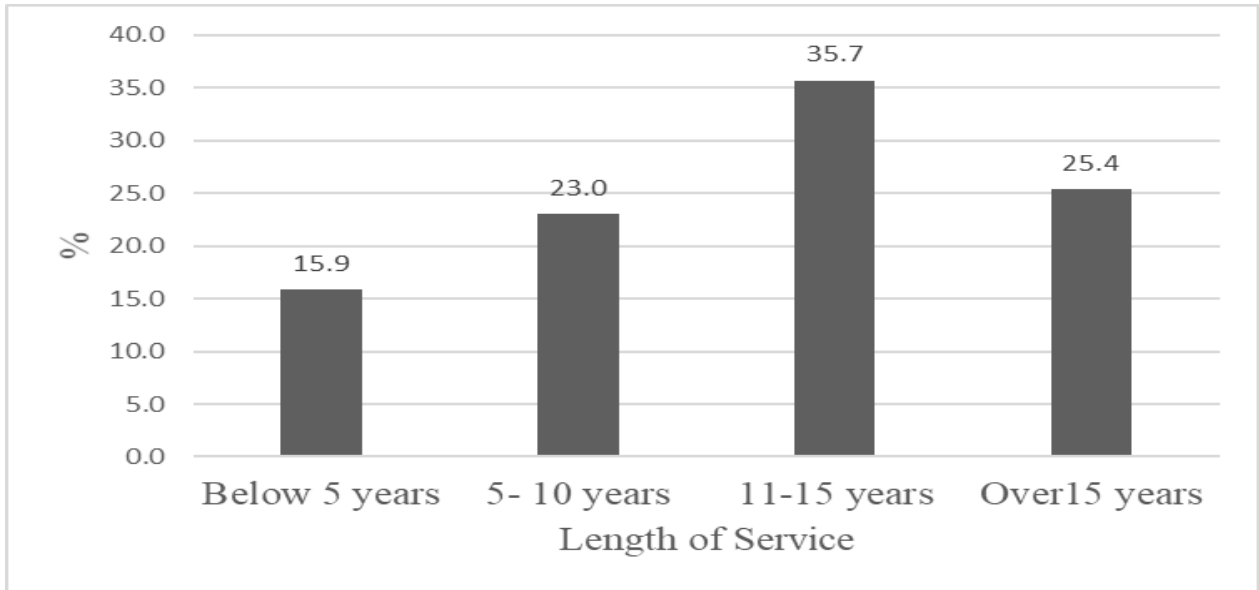


Figure 4.5: Tenure of Service in the Organization

4.5 Descriptive Statistics

The objective of descriptive statistics is to facilitate a study to significantly describe the distribution of measurements or scores by means of statistics or indices. The kind of statistics or indices utilized depends on the class of variables in a study and the level of dimensions. Mean, standard deviation and covariance measures were utilized to present the results pertaining to the correlation of the study variables. Results from the questions asked during data collection have been corroborated with the literature reviewed in chapter two.

4.5.1 Clan Culture

The study's first objective was to determine the influence of clan culture on performance of public water companies in Kenya. The clan culture offers employees possibilities to act genuinely, to speak their minds, and to behave in ways that fit their own values and beliefs (Gregory, Harris, Armenakis & Shook, 2009). In this study, clan culture was operationalized by teamwork, mutual trust, and human resource development. A five-point Likert type of scale was utilized to analyze each of the constructs. The findings in Table 4.3 show that the management style in the public water companies owned by County Governments in Kenya was typified by collaboration as signified by a mean of 3.97, a standard deviation of 0.95 and a covariance of 0.885. Respondents concurred to a great scope that the glue that bound their companies collectively was reciprocal conviction as illustrated by a mean of 4.00, a standard deviation of 0.88 and a covariance of 0.809.

Water companies' managers emphasized human resource development as one of the success factors as supported by a mean of 4.11, a standard deviation of 0.81 and a covariance of 0.711. Respondents concurred that their companies were a personal place like an extended family by a mean of 4.00, a standard deviation of 0.87 and a covariance of 0.801. The leadership in the organization exemplified mentoring and nurturing characteristics as supported by a mean of 4.15, a standard deviation of 0.89 and a covariance of 0.771. Enormous significance was granted to dedication to the companies as denoted by a mean of 4.07, a standard deviation of 0.90 and a covariance of 0.801. Respondents agreed that their organizations defined success on the basis of concern for people as shown by a mean of 3.87, a standard deviation of 0.97 and a covariance of 0.944. These results support the study findings by Thomas *et al.* (2002) that clan culture places a premium on team cohesion, consensus and morale.

Table 4.3: Clan Culture

	N	Mean	Std. Dev	Cov.
The management approach in your company is exemplified by teamwork.	126	3.97	.95	.885
The glue that binds your company together is mutual trust.	126	4.00	.88	.809
Your company emphasizes human resource development as one of the success factors.	126	4.11	.81	.711
Your company is an individual place like an extended family.	126	4.00	.87	.801
The leadership in your organization exemplifies mentoring and nurturing characteristics.	126	4.15	.89	.771
Great importance is given to commitment in your organization.	126	4.07	.90	.801
Your organization defines achievement on the foundation of concern for employees.	126	3.87	.97	.944

The respondents were asked to indicate how clan culture values can be entrenched in their organizations. Table 4.4 illustrates the responses to the question. From the results, it can be concluded that there are many ways in which clan culture values can be entrenched in an organization with a view to enhancing performance. Entrenchment of clan culture values can be achieved through teamwork (19%), supervisor support (16%), sharing of information (12%), respect (11%), trust (9%), effective communication (8%), open door policy (7%), and team building (7%). The study's findings are in line with the findings of Felipe *et al.* (2017) that clan culture has an affirmative link with organizational performance.

Table 4.4: Ways of Entrenching Clan Culture Values

	Frequency	Percentage
Respect	14	11%
Teamwork	23	19%
Open door policy	9	7%
Supervisor support	20	16%
Sharing of information	15	12%
Trust	11	9%
Empowerment	9	7%
Team building	12	10%
Effective communication	10	8%

The respondents were also asked to state whether clan culture improves performance in their organizations. Results in Table 4.5 demonstrate the findings. 117 of the respondents answered the question. 58% indicated that clan culture improves organizational performance while 42% stated that it does not. The study's findings are in line with the findings of Acar and Acar (2014) that clan culture has a significant positive effect on organizational performance.

Table 4.5: Clan Culture Improves Organizational Performance

Statement	Frequency	Percentage
Yes	68	58%
No	49	42%

4.5.2 Adhocracy Culture

The second study objective was to examine the influence of adhocracy culture on performance of public water companies in Kenya. Adhocracy culture embodies a responsive environment with prominence on creativity. In this study, adhocracy culture was operationalized by promotion of individual initiative, entrepreneurial leadership and acquisition of new resources. A five-point Likert kind of scale was utilized to analyze each construct. The results

in Table 4.6 demonstrate that most of the respondents concurred that the administration of people in their companies was exemplified by encouragement of personal inventiveness as supported by a mean of 4.19, a standard deviation of 0.76 and a covariance of 0.699. Operations in the water companies generally were exemplified by entrepreneurship spirit as supported by a mean of 4.17, a standard deviation of 0.73 and covariance of 0.660. Respondents indicated that they agreed that one of the strategic priorities in their organizations was acquisition of new resources as demonstrated by a mean of 4.18, a standard deviation of 0.76 and a covariance of 0.580.

Respondents concurred that the glue that united their companies was compulsion to creativity and progress as demonstrated by a mean of 4.17, a standard deviation of 0.79 and a covariance of 0.732. In public water companies owned by County Governments in Kenya, originality and search for opportunities were highly valued as indicated by a mean of 4.03, a standard deviation of 0.90 and a covariance of 0.708. Public water companies emphasized growth and readiness to meet new challenges as indicated by a mean of 4.14, a standard deviation of 0.86 and a covariance of 0.800. There was commitment to creation of new ways of providing services to customers as supported by a mean of 4.11, a standard deviation of 1.08 and a covariance of 1.118. The results support the study findings by Tseng (2010) that adhocracy type of culture of an organization has considerable positive effect on a firm's performance.

Table 4.6: Adhocracy Culture

	N	Mean	Std. Dev	Cov.
The management of employees in your organization is characterized by promotion of individual initiative.	126	4.19	.76	.699
Operations in your organization are exemplified by entrepreneurship spirit.	126	4.17	.73	.660
One of the strategic priorities in your organization is acquirement of latest resources.	126	4.18	.76	.580
The glue that binds your company together is obligation to originality and improvement.	126	4.17	.79	.732
In your organization, originality and search for opportunities are valued.	126	4.03	.90	.708
Your company stresses that expansion and promptness to encounter any forthcoming challenges are vital.	126	4.14	.86	.800
In your organization, there is commitment to creation of new ways of providing services to customers.	126	4.11	1.08	1.118

The respondents were asked to indicate how adhocracy culture values can be entrenched in their organizations. Table 4.7 gives a summary of their responses. From the results, it can be concluded that there are a number of ways in which adhocracy culture values can be entrenched in an organization in order to improve performance. Entrenchment of adhocracy culture values can be achieved through increased productivity (30%), timely solving of problems (23%), creativity and new ideas (18%), provision of efficient services (17%), and development of new products and services (11%). The study's findings are in line with the findings of the study by Felipe *et al.* (2017) that revealed a positive effect involving adhocracy culture and organizational performance

Table 4.7: Ways of Entrenching Adhocracy Culture Values

	Frequency	Percentage
Creativity and new ideas	21	18%
Increased productivity	34	30%
Development of new products and services	13	11%
Provision of efficient services	20	17%
Timely solving of problems	27	23%

The respondents were also asked to state whether adhocracy culture improves performance in their organizations. Results in Table 4.8 demonstrate the findings. 111 of the respondents answered the question. 60% indicated that clan culture improves organizational performance while 40% stated that it does not. This finding fits with empirical studies' support of adhocracy culture being an important precondition for organizational performance success (Matzler *et al.*, 2013).

Table 4.8: Adhocracy Culture Improves Organizational Performance

Statement	Frequency	Percentage
Yes	67	60%
No	44	40%

4.5.3 Market Culture

The third objective of the study was to establish the influence of market culture on performance of public water companies in Kenya. Market culture is a rational culture which emphasizes efficiency and achievement (Acar & Acar, 2014). In this study, market culture

was operationalized by goal achievement, competitive spirit and results-oriented leadership. A five-point Likert kind of scale was utilized to gauge the responses. The outcome of the responses is shown in Table 4.9. A good number of the respondents concurred that the glue that bound their companies together was stress on goal attainment as demonstrated by a mean of 4.38, a standard deviation of 0.77 and a covariance of 0.957. Asked whether management of employees in their organizations was characterized by promotion of competitive spirit, majority of the respondents agreed as indicated by a mean of 4.26, a standard deviation of 0.78 and a covariance of 0.697. Management in public water companies was characterized by having results-oriented focus as indicated by a mean of 4.34, a standard deviation of 0.82 and a covariance of 0.758.

Respondents' organizations defined achievement on the foundation of increasing the number of customers as demonstrated by a mean of 4.34, a standard deviation of 0.82 and a covariance of 0.703. Managers and subordinates jointly set goals that were ambitious but pragmatic as demonstrated by a mean of 4.33, a standard deviation of 0.74 and a covariance of 0.648. Respondents indicated that in their organizations, measurement of targets and objectives was undertaken on regular basis as shown by a mean of 3.88, a standard deviation of 0.58 and a covariance of 0.648. Measurement of targets and objectives was undertaken on regular basis as indicated by a mean of 3.88, a standard deviation of 0.58 and a covariance of 0.433. Management approach in public water companies was characterized by goal attainment as demonstrated by a mean of 4.14, a standard deviation of 0.94 and a covariance of 0.891. The results support the findings of a study by Fekete and Bocskei (2011) that market type of culture has an affirmative consequence on business effectiveness, efficiency and competitiveness, which in turn improves performance outcomes.

Table 4.9: Market Culture

	N	Mean	Std. Dev	Cov.
The glue that binds your company together is stress on goal achievement.	126	4.38	.77	.957
Management of employees in your company is exemplified by encouragement of competitive spirit.	126	4.26	.78	.697
Management in your organization is characterized by having results-oriented focus.	126	4.23	.84	.758
Your organization defines achievement on the foundation of increasing the number of customers.	126	4.34	.82	.703
Managers and subordinates jointly set goals that are ambitious but realistic.	126	4.33	.74	.648

In your organizations, measurement of targets and objectives is undertaken on regular basis.	126	3.88	.58	.433
Management style in your organization is characterized by goal achievement.	126	4.14	.94	.891

The respondents were asked to indicate how market culture values can be entrenched in their organizations. Table 4.10 gives a summary of their responses. From the results, it can be concluded that there are a number of ways in which market culture values can be entrenched in an organization in order to improve performance. Entrenchment of market culture values can be achieved through reward of effort (34%), customer focus (27%), goal achievement (23%), and financial sustainability (11%). The findings are in line with the findings of a study conducted by Aketch *et al.* (2017) that revealed that market culture was a significant predictor of organizational performance.

Table 4.10: Ways of Entrenching Market Culture Values

	Frequency	Percentage
Goal achievement	25	23%
Customer focus	30	27%
Financial sustainability	18	11%
Reward of effort	37	34%

The respondents were also asked to state whether market culture improves performance in their organizations. Results in Table 4.11 provide the outcome. 56% indicated that market culture improves organizational performance while 44% stated that it does not. This finding supports the results of a study by Haggalla and Jayatilake (2017) in international information technology companies in Sri Lanka which revealed that market culture improves organizational performance.

Table 4.11: Market Culture Improves Organizational Performance

Statement	Frequency	Percentage
Yes	64	56%
No	50	44%

4.5.4 Hierarchy Culture

The fourth study objective was to investigate the influence of hierarchy culture on performance of public water companies in Kenya. In this study, hierarchy culture was

operationalized by formal rules and policies, employment security and efficient delivery of service. A five-point Likert sort of scale was used to assess each of the items. The study aimed at ascertaining whether hierarchy type of culture had a consequence on performance of public water companies in Kenya. The findings are summarized in Table 4.12. According to the findings, respondents showed their concurrence to a great scope that the glue that united their companies was laid down guidelines as demonstrated by a mean score of 4.50, a standard deviation of 0.68 and a covariance of 0.404, management style in the companies of the respondents was exemplified by security of tenure as illustrated by a mean score of 4.52, a standard deviation of 0.61 and a covariance of 0.355.

Respondents indicated that their organizations defined achievement on the foundation of efficient service delivery as illustrated by a mean score of 4.45, a standard deviation of 0.76 and a covariance of 0.455. Respondents concurred that teamwork in their companies was depicted by operational competence as illustrated by a mean of 4.35, a standard deviation of 0.73 and a covariance of 0.476. Management style in the respondents' organizations was characterized by careful monitoring of productivity as illustrated by a mean of 4.22, a standard deviation of 0.90 and a covariance of 0.561. The values shared by staff in the respondents' organizations were respect for and compliance with policies as indicated by a mean of 4.34 with a standard deviation of 0.73 and a covariance of 0.474.

Respondents were of the view that an organization will perform well if there is consistency between the values of its employees and the organization as indicated by a mean of 4.38 with a standard deviation of 0.66 and a covariance of 0.448. The results support the findings by Acar and Acar (2014) who found that the most common type of organizational culture in hospitals in Turkey was hierarchy culture both in private and public sector. The researchers further observed that although, the effects of hierarchy culture on service and financial performance were experienced in public hospitals, the same effect could not be ascertained in private hospitals.

Table 4.12: Hierarchy Culture

	N	Mean	Std. Dev	Cov
The glue that binds your company together is prescribed regulations.	126	4.50	.68	.404
Management style in your company is exemplified by security of tenure.	126	4.52	.61	.355
Your organization defines achievement on the foundation of efficient service delivery.	126	4.45	.76	.455
Teamwork in your company is depicted by operational competence.	126	4.35	.73	.476
The management approach in your company is illustrated by careful monitoring of performance.	126	4.22	.90	.561
The values shared by staff in your organization are respect for and compliance with policies.	126	4.34	.73	.474
An organization will perform well if there is consistency between the values of its employees and the organization.	126	4.38	.66	.448

The respondents were asked to indicate how hierarchy culture values can be entrenched in their organizations. Table 4.13 provides the results. From the results, it can be concluded that there are a number of ways in which hierarchy culture values can be entrenched in an organization so as to improve performance. Entrenchment of hierarchy culture values can be achieved through procedures and regulations (34%), compliance (25%), well-defined processes (25%), and proper chain of command (11%). The findings are in line with the findings of a study conducted by Felipe *et al.* (2017) who found a positive link between hierarchy culture and organizational performance.

Table 4.13: Ways of Entrenching Hierarchy Culture Values

	Frequency	Percentage
Procedures and regulations	37	34%
Well-defined processes	27	25%
Compliance	31	29%
Proper chain of command	13	12%

The respondents were also asked to state whether hierarchy culture improves performance in their organizations. Results in Table 4.14 demonstrate the findings. 55% indicated that hierarchy culture improves organizational performance while 45% stated that it does not. The study's findings are in line with those of Panuwatwanich and Nguyen (2017) who in a study in the Vietnamese construction sector found that hierarchy culture improves organizational performance.

Table 4.14: Hierarchy Culture Improves Organizational Performance

Statement	Frequency	Percentage
Yes	59	55%
No	49	45%

4.5.5 Leadership Values

The fifth study objective was to establish the moderating effect of leadership values on the relationship between organizational culture and performance of public water companies in Kenya. Respondents were asked to state their level of agreement on Likert scale of 1-5. The findings are shown in Table 4.15. The results illustrate that nearly all the respondents were in agreement to an immense degree that initiating novel thoughts was necessary for their leaders as demonstrated by a mean of 4.37, a standard deviation of 0.83 and a covariance of 0.684. Respondents indicated that it was significant for their supervisors to come up with their own ideas about what they wanted to do as supported by a mean of 4.36, a standard deviation of 0.82 and a covariance of 0.679. Respondents indicated that it was important for their supervisors to take pride in being inquisitive and trying to comprehend all sorts of issues about work as illustrated by a mean of 4.09, a standard deviation of 0.91 and a covariance of 0.660. Respondents indicated that it was important for their supervisors often to desire to be independent and not to rely on any other person as exemplified by a mean of 4.11, a standard deviation of 1.08 and a covariance of 0.835.

Most of the respondents thought that it was important for their supervisors always to desire to be in charge and instruct employees to do what they wanted as indicated by a mean of 4.24, a standard deviation of 0.95 and a covariance of 0.739. Respondents indicated that their supervisors wanted at all times to be the ones making decisions in their organizations as shown by a mean of 4.24, a standard deviation of 0.96 and a covariance of 0.755. Respondents indicated that supervisors believed that employees should always follow regulations even when nobody is around them as supported by a mean of 4.14, a standard deviation of 1.07 and a covariance of 0.826. Respondents indicated that their supervisors thought that it was essential to undertake plenty of different job assignments as illustrated by a mean of 4.15, a standard deviation of 0.88 and a covariance of 0.649. Respondents indicated that their supervisors were fond of taking risks and looking for exciting activities at all times as shown by a mean of 3.55, a standard deviation of 1.09 and a covariance of 0.655.

Table 4.15: Leadership Values

	N	Mean	Std. Dev	Cov
Originating new ideas and being innovative is essential to him/her.	126	4.37	.83	.684
It is significant for him/her to come up his/her own ideas about what he/she wants to do.	126	4.36	.82	.679
He/she takes pride in being inquisitive and trying to comprehend all sorts of issues about work.	126	4.09	.91	.660
He/she often wants to be independent and not to rely on any other person.	126	4.11	1.08	.835
He/she always wants to be in charge and instruct employees to do what he/she wants.	126	4.24	.95	.739
He/she wants at all times to be the one making decisions.	126	4.24	.96	.755
He/she believes that employees should always follow regulations even when nobody is around them.	126	4.14	1.07	.826
He/she thinks it is essential to undertake plenty of different job assignments.	126	4.15	.88	.649
He/she is fond of taking risks and looking for exciting activities at all times.	126	3.55	1.09	.655

The respondents were asked to state whether they would attribute performance of their organizations to only leadership values. 106 of the respondents answered the question. Majority of the respondents (56%) attributed performance of their organizations to only leadership values while 44% dissented. Respondents also explained that apart from leadership values, other factors such as external factors, skills of employees and availability of resources also affect performance of an organization. This finding fits that of Huysentruyt *et al.* (2015) who conducted a study and found evidence that leadership values influence management practices that are highly important for an organization's success in terms of all social, financial and innovation performance.

4.5.6 Organizational Performance

Organizational performance was operationalized by customer satisfaction, employee satisfaction and corporate social responsibility as the constructs of performance. A five-point Likert kind of scale was used in analyzing each of the constructs. The mean score, standard deviation and covariance results of the findings are illustrated by Table 4.16. The results show that employee satisfaction was reasonable with a mean of 3.19, a standard deviation of 0.89 and a covariance of 0.589. Respondents specified that consumers were at ease as illustrated by a mean of 3.15, a standard deviation of 0.98 and a covariance of 0.637.

Respondents indicated their disagreement that their companies participated in corporate social responsibility activities as shown by a mean of 2.60, a standard deviation of 0.97 and a covariance of 0.668. On the issue of water coverage, respondents concurred that it was fair as demonstrated by a mean of 3.19, a standard deviation of 0.97 and a covariance of 0.638. Period of supplying water was deemed reasonable as demonstrated by a mean of 3.35, a standard deviation of 0.93 and a covariance of 0.613. Respondents indicated that water quality was good for consumption as illustrated by a mean of 3.82 with standard deviation of 0.77 and a covariance of 0.581. Respondents indicated their disagreement on reduction in non-revenue water as shown by a mean of 2.89, a standard deviation of 1.00 and a covariance of 0.691. On the issue of collecting revenue, respondents pointed out that it was well-organized as illustrated by a mean of 3.81, a standard deviation of 0.78 and a covariance of 0.619.

Table 4.16: Organizational Performance

	N	Mean	Std. Dev	Cov
Employee satisfaction	126	3.19	.89	.589
Customer satisfaction	126	3.15	.98	.637
Participation in corporate social responsibilities	126	2.60	.97	.668
Water coverage	126	3.19	.97	.638
Hours of water supply	126	3.35	.93	.613
Drinking water quality	126	3.82	.77	.581
Reduction in non-revenue water	126	2.89	1.00	.691
Revenue collection efficiency	126	3.81	.78	.619

Secondary data on functioning of the water companies owned by County Governments in Kenya were gathered in order to cross examine the results from the primary data as illustrated by Table 4.17 and subjected to analysis. Secondary data were obtained from the documents of the sampled public water companies and the Water Services Regulatory Board. The results generally indicated that there was no major difference in performance from 2013 to 2017 thus reflecting poor functioning in respect of the water companies owned by County Governments in Kenya. This implies that inadequate performance by the water companies may perhaps be attributed to the fact that they have not embraced organizational culture that encourages efficiency. For improvement in service delivery to be achieved, there has to be an appropriate business oriented organizational culture to spur enhanced performance.

Table 4.17: Secondary Data

Performance Indicator	2013/14	2014/15	2015/16	2016/17
Employee satisfaction level (%)	59	57	56	54
Customer satisfaction level (%)	51	55	53	52
Participation in corporate social responsibilities (number of activities per year)	1	1	2	1
Water coverage (%)	52	55	55	55
Water supply (hours per day)	19	18	17	14
Drinking water quality (%)	90	92	94	94
Non-revenue water (%)	49	43	43	42
Revenue collection efficiency (%)	72	78	83	91

4.6 Diagnostic Tests

This section presents diagnostic tests conducted in this study. Subsequent to fitting a regression model, it is important to determine whether all the necessary model assumptions are valid before performing inference. If there are any violations, consequent inferential procedures may be invalid resulting in flawed conclusions. It is therefore important to execute suitable model diagnostics before conducting statistical tests. Diagnostic procedures permit a researcher to investigate whether the suppositions of a regression model are valid so as to make a decision on the validity of subsequent inference results (Brooks, 2014). The diagnostic tests generally carried out in a study were tests for linearity, normality, multicollinearity and heteroscedasticity.

4.6.1 Linearity Test

Linearity of relationship in multiple regressions denotes the degree to which a variation in the dependent variable is associated with the independent variable. The study results of the linearity test as indicated in Figure 4.6 demonstrate that the variables were distributed linearly. The findings in addition demonstrate that the variables had an increasing trend, a sign that the variables were linearly distributed.

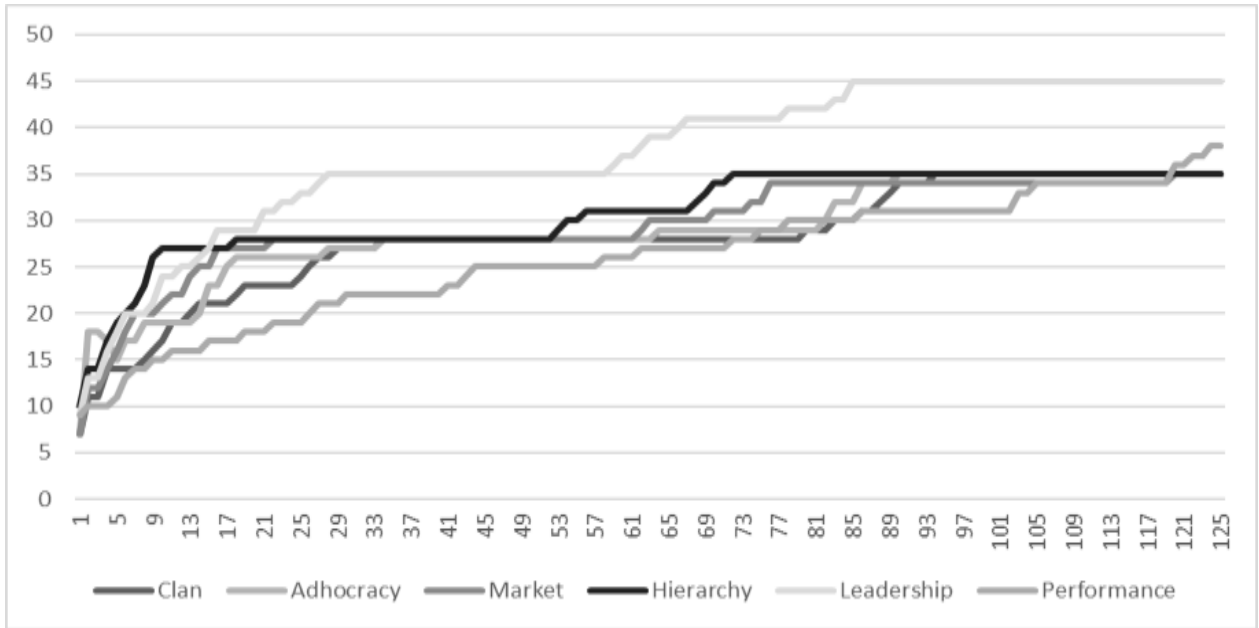


Figure 4.6: Linearity Testing

4.6.2 Normality Test

The fundamental assumption in regression analysis is the normality of the residuals in the dependent variable in order to take a broader view of results of a research beyond the sample collected (Field, 2009). The test for normality of the dependent variable was done by use of Kolmogorov-Smirnov test and graphical method to ascertain whether organizational performance data were distributed normally.

The null and alternative hypotheses are as follows; H_0 : the data is normally distributed and H_1 : the data is not normally distributed. Given that $\alpha = 0.05$, the rule is that if the p value is greater than 0.05, H_1 is accepted; if the p -value is less than 0.05, H_0 is rejected and H_1 accepted. The results obtained in Table 4.18 indicate that the Kolmogorov-Smirnov Z statistic is 0.106 (p value=0.001). Given that the p value is less than 0.05, the null hypothesis was rejected and the alternative hypothesis accepted. It was therefore concluded that the data for the study were normally distributed and fit for linear regression analysis. The results obtained using graphical method in Figure 4.7 further show the residuals were normally distributed. Based on the results of the Kolmogorov-Smirnov and normality tests, the study accepted the null hypothesis and rejected the alternative hypothesis.

Table 4.18: Kolmogorov-Smirnov Test

			Organizational performance
N			126
Normal Parameters ^{a,b}	Mean		29.01
	Std. Deviation		5.46
Most Extreme Differences	Absolute		.106
	Positive		.069
	Negative		-.106
Test Statistic			.106
Asymp. Sig. (2-tailed)			.001 ^c

- a. Test distribution is Normal
- b. Calculated from data
- c. Lilliefors Significance Correction

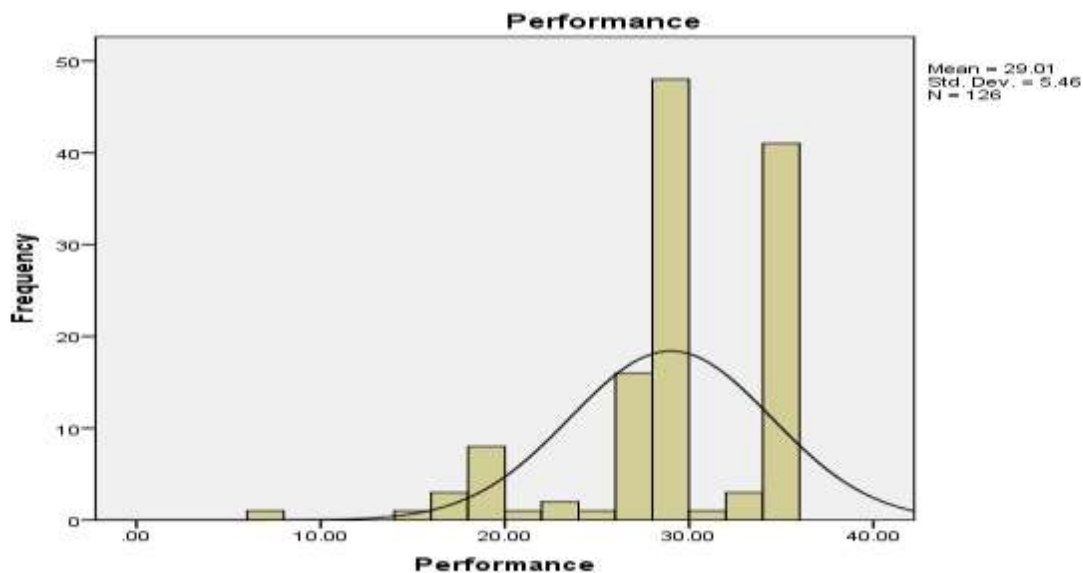


Figure 4.7: Normality Test

4.6.3 Multicollinearity Test

A multicollinearity test was conducted among the independent variables of the study using tolerance and variance inflation factor (VIF). Normally, a tolerance value of below 0.01 or a VIF value greater than 5 reveals serious multicollinearity problem (Hair *et al.*, 2010). The findings of the multicollinearity analysis are illustrated by Table 4.19. The results show that clan culture had a VIF of 4.33, adhocracy culture had a VIF of 3.70, market culture had a VIF of 2.94, hierarchy culture had a VIF of 4.00 and leadership values had a VIF of 4.17. This shows that no single variable was outside the threshold of 1-5, intimation that the variables were not related; therefore, they were suitable for regression.

Table 4.19: Multicollinearity Test

Variable	Tolerance	VIF
Clan Culture	0.23	4.33
Adhocracy culture	0.27	3.70
Market culture	0.34	2.94
Hierarchy culture	0.25	4.00
Leadership Values	0.24	4.17

4.6.4 Heteroscedasticity

Heteroscedasticity is detected when the dimension of the error term differs across values of an independent variable and this violates the statistical assumption that the error terms have a constant variance. In regression analysis, it can invalidate statistical tests of significance that assume that the modeling errors are not correlated; dispersed normally and that their variances do not vary with the effects being modelled. Heteroscedasticity was checked by utilizing normal P-P plot and scatter chart. The outcomes of the normal P-P plot and scatter plot from Figures 4.8 and 4.9 show that the plots were distributed along the normal line; an indication that the study variables were normally distributed. The scatter plot established that the data sets formed a pattern, an indication that study variables were normally distributed.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Performance

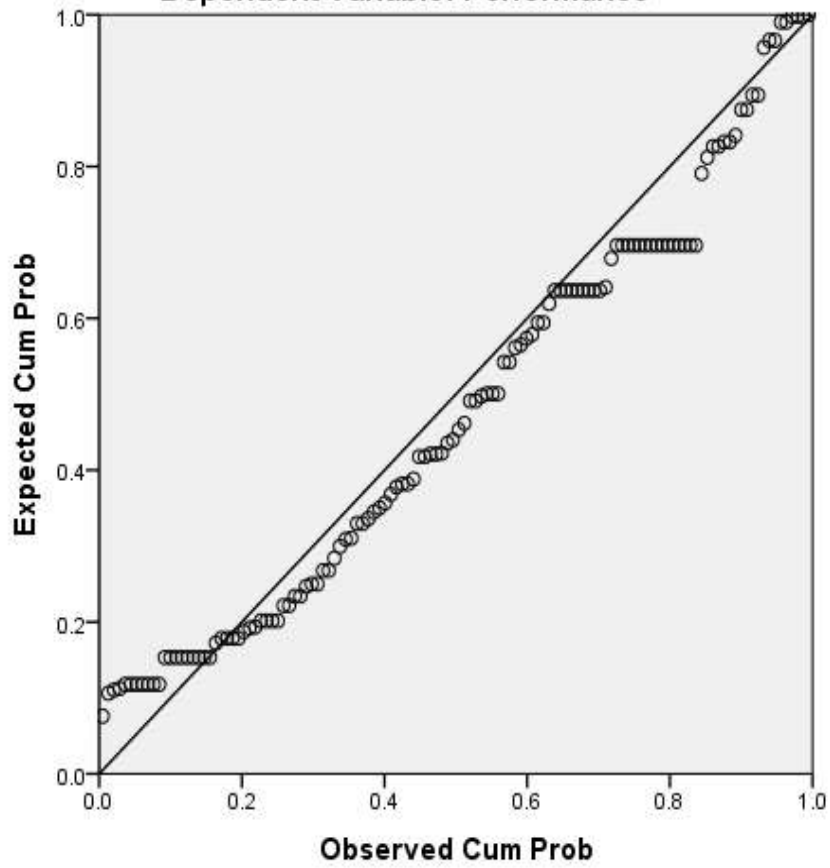


Figure 4.8: Heteroscedasticity

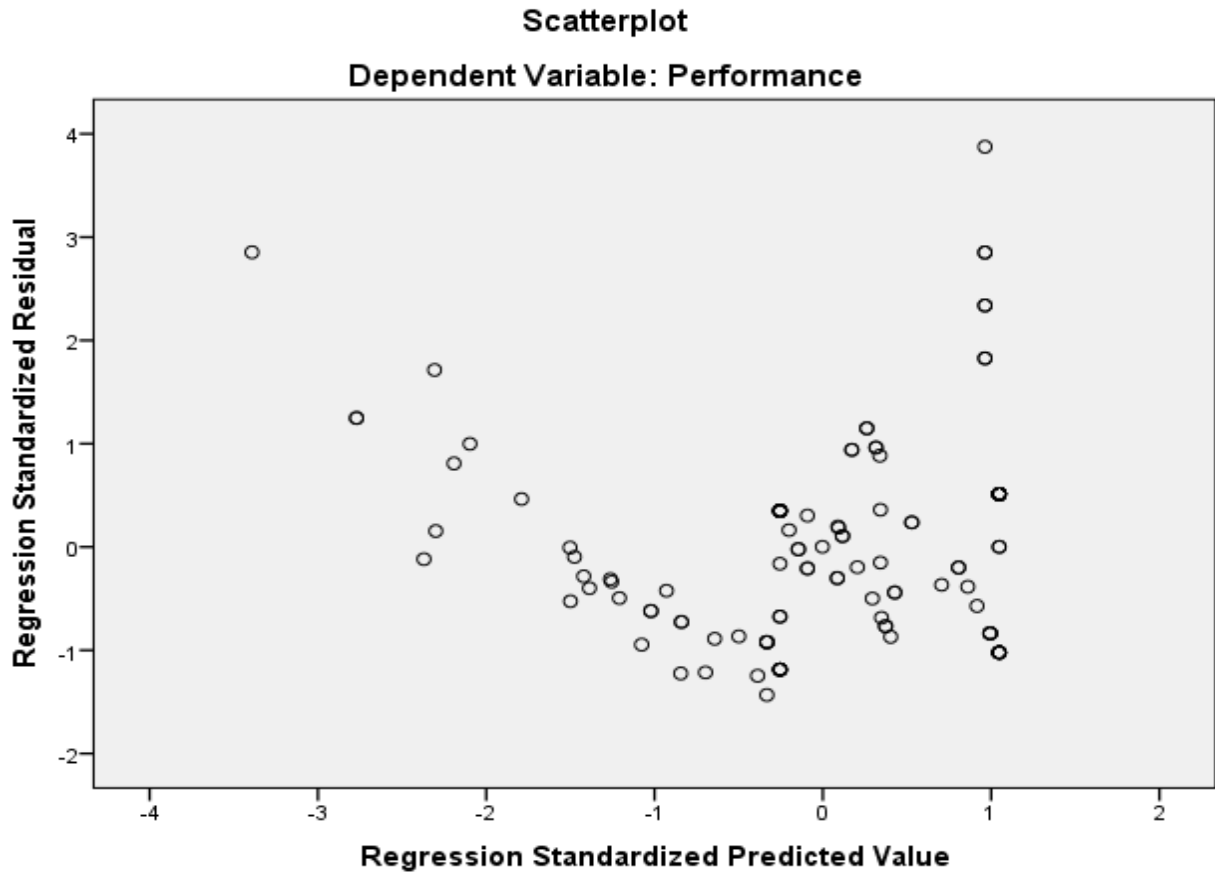


Figure 4.9: Heteroscedasticity

4.7 Inferential Statistics

This section presents results of inferential statistics of the study variables. Correlation analysis was used to measure the strength of the relationship between the independent variables, that is, clan culture, adhocracy culture, market culture and hierarchy culture and the moderating effect of leadership values. Regression analysis was applied to determine the effect of the independent and moderating variables on the dependent variable separately.

4.7.1 Correlation Analysis

Coefficient of correlation (r) refers to the determination of linear relation involving two variables. Pearson's coefficient of correlation is the most commonly utilized technique of evaluating the extent of relationships between variables (Orodho, 2009). The value of r is commonly used to summarize the association between two variables. Positive value of r implies positive correlation while negative value of r implies negative correlation. When the r value is $+1$, it implies that there is a perfect positive association among the two variables whereas while it is -1 ; it implies that there exists a perfect negative association among the

variables. A correlation coefficient of 0 ($r = 0$) shows that there is no linear association among the two variables. This technique presupposes that the data is from a population which is normally spread.

The study carried out correlation examination among the variables of the study by making use of the Pearson product-moment correlation coefficient. The findings in Table 4.20 illustrate that each and every predictor variable had a significant positive association with organizational performance. The study established that clan culture had a Pearson correlation of 0.748, an indication of strong positive correlation with organizational performance. Adhocracy culture had a Pearson correlation of 0.837, an indication of strong positive correlation with organization culture. Market culture had a Pearson correlation of 0.628, an indication of strong positive correlation, hierarchy culture had a Pearson correlation of 0.799, an indication of strong positive correlation and leadership values had a Pearson correlation of 0.651, an indication of strong positive association with organizational performance.

The results of this study agree with the ones of Thomas *et al.* (2002) who established that clan culture was associated positively with organizational performance. The results of this study also support those of Tseng (2010) that adhocracy culture had a considerable positive effect on organizational performance. A research conducted by Fekete and Bocskei (2011) revealed that market culture had positive impact on organizational effectiveness, efficiency and competitiveness, which in turn improves organizational performance. These findings by Fekete and Bocskei (2011) therefore agree with the results of this study that market type of culture had an affirmative consequence on performance of a firm. In addition, the findings of this study support the ones by Acar and Acar (2014) who found that hierarchy culture had positive influence on performance of public hospitals in Turkey.

Table 4.20: Correlation Analysis

		Perfo rman ce	Clan	Adhocrac y	Market	Hierarchy	Leadership
Performanc e	Pearson	1					
	Correlation						
	Sig. (2-Tailed)						
	N	126					
Clan	Pearson	.748**	1				
	Correlation						
	Sig. (2-Tailed)	.000					
	N	126	126				
Adhocracy	Pearson	.837**	.821**	1			
	Correlation						
	Sig. (2-Tailed)	.000	.000				
	N	126	126	126			
Market	Pearson	.628**	.620**	.619**	1		
	Correlation						
	Sig. (2-Tailed)	.000	.000	.000			
	N	126	126	126	126		
Hierarchy	Pearson	.799**	.782**	.778**	.772**	1	
	Correlation						
	Sig. (2-Tailed)	.000	.000	.000	.000		
	N	126	126	126	126	126	
Leadership	Pearson	.651**	.653**	.649**	.643**	.641**	1
	Correlation						
	Sig. (2-Tailed)	.000	.000	.000	.000	.000	
	N	126	126	126	126	126	126

** . Correlation is Significant at the 0.01 Level (2-Tailed).

4.7.2 Regression Analysis

In this section, results of regression analysis for each independent variable are presented. Regression analysis is a statistical technique to determine the linear relationship between two or more variables. Regression is primarily used for prediction and causal inference. The regression coefficient (R^2) shows how well the values fit the data. The R^2 and adjusted R^2 are two statistics used in assessing the fit of the model; values close to 1 indicate a better fit. To ascertain the causal effect of one variable upon another, a researcher assembles data on the underlying variables of interest and employs regression to estimate the quantitative effect of the causal variables upon the variable that they influence. A researcher also assesses the statistical significance of the estimated relationships, that is, the extent of confidence that the true relationship is close to the estimated relationship. The aim of regression analysis therefore is to identify the variables concurrently associated with predictor variables and guess

the dissimilar consequence of each variable on the criterion ones. Findings of the analysis of variance (ANOVA) and multiple regression examination of all the variables are also presented in this section.

i. Clan Culture and Organizational Performance

Regression analysis was used to examine the effect of clan culture on organizational performance by assessing the contribution of clan culture in explaining organizational performance. This was done by reviewing the involvement of clan culture in elucidating performance of a firm. From the results in Table 4.21, the R- square for the association among clan culture and performance is 0.584. This implies that clan culture can only explain 58.4 % of variation in performance. The remaining 41.6% of dissimilarity can be elucidated by other causes in relation to performance of the water companies owned by County Governments in Kenya. The R square value is an important indicator of the predictive accuracy of the equation. The implication of these findings is that clan culture plays a significant role in enhancing organizational performance.

Table 4.21: Model Summary for Clan Culture and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.764 ^a	.584	.581	1.00150

- a. Predictors: (Constant), Clan Culture
- b. Dependent Variable: Organizational Performance

ii. ANOVA for Clan Culture and Organizational Performance

Analysis of variance (ANOVA) was used in this study to establish the significance of the regression model. The statistical significance was regarded as considerable if the p value was less or equal to 0.05. The findings in Table 4.22 illustrate the consequence of the regression model with p value of 0.000 which is less than 0.05. The results also demonstrate that the regression model was statistically noteworthy in predicting the influence of clan culture on performance of the water companies owned by County Governments in Kenya.

The ANOVA results indicate that F-critical (1,124) was 3.9175 while the F-calculated was 874.975. This shows that F-calculated is greater than the F-critical; therefore there is a positive significant linear association among clan culture and performance. This means that when there is variation in clan culture, there is a considerable variation in performance. In

addition, the p value was 0.000, which is less than the significance level (0.05). This companies goodness of fit of the model predicting the positive and significant influence of clan culture on performance.

Table 4.22: ANOVA for Clan Culture and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3505.149	1	3505.149	874.975	.000 ^b
Residual	492.740	124	4.006		
Total	6001.968	125			

a. Dependent Variable: Organizational Performance

b. Predictors: (Constant): Clan Culture

iii. Regression Coefficients for Clan Culture and Organizational Performance

The results in Table 4.23 show that organizational performance had a positive index of 4.551 when clan culture (X_1) was held constant. This implies that as clan culture changes by one-unit, organizational performance changes by 0.392 units. The relationship is significant as the p value (0.001) is less than the significance level (0.05). The equation for regression of clan culture on performance is shown below:

$$Y = 4.551 + 0.392X_1 + \epsilon$$

Table 4.23: Regression Coefficients for Clan Culture and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.551	.845		5.384	.000
Clan	.392	.112	.348	3.511	.001

a. Dependent Variable: Organizational Performance

The finding shows that clan culture has a positive influence on performance of the water companies owned by County Governments in Kenya. This finding is supported by Fekete and Bocskei (2011) who reported that devotedness to an organization, loyalty and tradition are the underlying factors behind the positive relationship. It also implies that an organization with shared values will be more productive than those without shared values (Amah, 2012). Employees are motivated when they feel fairly treated and respected. There are several reasons why devotedness to an organization is related to improved organizational performance. Organizations that have clan culture characteristics and well-organized

workplaces have better performance records than those that do not have (Ohiorenoya & Eboreime, 2014). Zhang and Zhu (2012) in their study of 25 enterprises of 9 provinces in China found that clan culture was negatively related to organizational performance.

iv. Adhocracy Culture and Organizational Performance

Regression analysis was applied to ascertain if there was a link involving adhocracy culture and performance. This was done by assessing the contribution of adhocracy culture in explaining organizational performance. Table 4.24 shows that the model summary for the linear regression analysis involving adhocracy culture and performance indicated R-square of 0.543. This implies that adhocracy culture can explain a variation of 54.3% of the dependent variable. The remaining 45.7% can be elucidated by other aspects in relation to performance of the water companies owned by County Governments in Kenya. The R square value is an important indicator of the predictive accuracy of the equation. The findings therefore indicate that adhocracy culture plays a significant role in enhancing organizational performance.

Table 4.24: Model Summary for Adhocracy Culture and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.737 ^a	.543	.531	1.04204

a. Predictors: (Constant), Adhocracy

b. Dependent Variable: Organizational Performance

v. ANOVA for Adhocracy Culture and Organizational Performance

ANOVA was applied in this investigation to ascertain the significance of the regression model. The statistical significance was deemed noteworthy if the p value was less or equal to 0.05. The findings in Table 4.25 illustrate the importance of the regression model with p value of 0.000 which was less than 0.05. The outcome in addition demonstrates that the regression model was statistically important in envisaging the influence of adhocracy culture on performance of the water companies owned by County Governments in Kenya.

The ANOVA results indicate that F-critical (1,124) was 3.9175 while the F-calculated was 146.146. This shows that F-calculated is greater than the F-critical hence there is a positive significant linear association involving adhocracy culture and performance. This means that when there is a variation in adhocracy culture, there is a considerable variation in performance. In addition, the p value was 0.000, which is less than the significance level

(0.05). This companies goodness of fit of the model predicting the positive and considerable effect of adhocracy culture on performance.

Table 4.25: ANOVA for Adhocracy Culture and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3259.06	1	3259.06	146.146	.000 ^b
Residual	2742.9	124	22.120		
Total	6001.96	125			

a. Predictors: (Constant), Adhocracy Culture

b. Dependent Variable: Organizational Performance

vi. Regression Coefficients for Adhocracy Culture and Organizational Performance

The results in Table 4.26 show that organizational performance had a positive index of 5.733 when adhocracy culture (X_2) was held constant. This implies that as adhocracy culture improves by one-unit, organizational performance increases by 0.327 units. The relationship is significant as the p value (0.000) was less than the significance level (0.05). The equation for regression of adhocracy culture on performance is shown below:

$$Y = 5.733 + 0.327X_2 + \varepsilon$$

Table 4.26: Regression for Adhocracy Culture and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.733	1.057		5.422	.000
Adhocracy	.327	.124	.258	2.647	.000

a. Dependent Variable: Organizational Performance

The finding shows that adhocracy culture has a positive influence on performance of the water companies owned by County Governments in Kenya. The finding supports the findings of Naranjo-Valencia *et al.*, (2016) that adhocracy culture fosters organizational performance. The finding also supports that of Zhang and Zhu (2012) who found in their study that adhocracy culture had a positive impact on performance of 25 enterprises of 9 provinces in China. The implication of the finding is that leaders of the water companies owned by County Governments in Kenya should make an effort to develop a stable adhocracy culture in order to enhance performance of their organizations.

vii. Market Culture and Organizational Performance

Regression analysis was utilized to ascertain if there was an affiliation linking market culture and performance. This was done by assessing the contribution of market culture in explaining organizational performance. Table 4.27 shows that the model summary for the linear regression analysis involving market culture and performance indicated an R-square of 0.567. This implies that market culture values can explain a variation of 56.7% of performance. The remaining 43.3% can be elucidated by other aspects in relation to performance of the water companies owned by County Governments in Kenya. The R square value is an important indicator of the predictive accuracy of the equation. The findings therefore indicate that market culture plays a significant role in enhancing organizational performance.

Table 4.27: Model Summary for Market Culture and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753 ^a	.567	.559	1.75572

a. Predictors: (Constant), Market Culture

b. Dependent Variable: Organizational Performance

viii. ANOVA for Market Culture and Organizational Performance

ANOVA was used in this investigation to ascertain the implication of the regression model. The statistical significance was regarded as considerable if the p value was less or equal to 0.05. The findings in Table 4.28 illustrate the significance of the regression model with p value of 0.000 which is less than 0.05. The findings additionally reveal that the regression model is statistically important in envisaging the influence of market culture on performance of the water companies owned by County Governments in Kenya.

The ANOVA results indicate that F-critical (1,124) was 3.9175 while the F-calculated was 448.132. This shows that F-calculated was greater than the F-critical hence there is a positive considerable linear association involving market culture and performance. It therefore implies that when there is an increase in adhocracy culture, there is a significant increase in organizational performance. In addition, the p -value was 0.000, which is less than the significance level (0.05). This companies goodness of fit of the model predicting the positive and significant influence of market culture on performance.

Table 4.28: ANOVA for Market Culture and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3403.111	1	3403.111	448.132	.000 ^b
Residual	941.653	124	7.594		
Total	6001.968	125			

a. Predictors: (Constant): Market Culture

b. Dependent Variable: Organizational Performance

ix. Regression Coefficients for Market Culture and Organizational Performance

The results in Table 4.29 show that organizational performance had a positive index of 1.879 when market culture (X_3) was held constant. This implies that as market culture improves by one-unit, organizational performance increases by 0.352 units. The relationship is significant as the p value (0.031) was less than the significance level (0.05). The equation for regression of market culture on performance is shown below:

$$Y = 1.879 + 0.352X_3 + \varepsilon$$

Table 4.29: Regression Coefficients for Market Culture and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.879	1.321		1.422	.157
Market	.352	.161	.267	2.186	.031

a. Dependent Variable: Organizational Performance

The finding shows that market culture has a positive influence on performance of the water companies owned by County Governments in Kenya. The finding supports that of Fekete and Bocskei (2011) whose study found that market culture had an affirmative outcome on business effectiveness, efficiency and competitiveness, which in turn improves performance outcomes. Naranjo-Valencia *et al.*, (2016) in their research also established that market culture had a considerable impact on performance but with a negative signal.

x. Hierarchy Culture and Organizational Performance

Regression analysis was used to examine if there was an association between hierarchy culture and performance. This was done by evaluating the input of hierarchy culture in elucidating performance. The results in Table 4.30 show that the R-squared for the association linking hierarchy culture and performance was 0.578. This means that hierarchy culture can

explain 57.8% variation of the dependent variable. The remaining 42.2% can be explained by other aspects related to performance of public water companies in Kenya. The implication of these findings is that hierarchy culture plays a significant role in enhancing organizational performance.

Table 4.30: Model Summary for Hierarchy Culture and Organizational Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760 ^a	.578	.572	1.93351

a. Predictors: (Constant), Hierarchy Culture

b. Dependent Variable: Organizational Performance

xi. ANOVA for Hierarchy Culture and Organizational Performance

ANOVA was applied in this research to ascertain the significance of the regression model. The statistical significance was regarded as considerable if the p value was less or equal to 0.05. The findings in Table 4.31 demonstrate the significance of the regression model with p value of 0.000 which is less than 0.05. The findings moreover display that the regression model is statistically considerable in envisaging the influence of hierarchy culture on performance of the water companies owned by County Governments in Kenya.

The ANOVA results indicate that F-critical (1,124) was 3.9175 while the F-calculated was 403.154. This shows that F-calculated was greater than the F-critical, which means that there is a positive significant linear association between hierarchy culture and performance. It can therefore be concluded that when there is dissimilarity in hierarchy culture, there is a noteworthy variation in performance. In addition, the p value was 0.000, which was less than the significance level (0.05). This companies goodness of fit of the model in predicting considerable effect of hierarchy type of culture on performance.

Table 4.31: ANOVA for Hierarchy Culture and Organizational Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3469.138	1	3469.138	403.154	.000 ^b
Residual	1067.077	124	8.605		
Total	6001.968	125			

a. Predictors: (Constant), Hierarchy Culture

b. Dependent Variable: Organizational Performance

xii. Regression Coefficients for Hierarchy Culture and Organizational Performance

The results in Table 4.32 show that organizational performance had a positive index of 3.291 when hierarchy culture (X_4) was held constant. This implies that as hierarchy culture improves by one-unit, organizational performance increases by 1.513 units. The relationship is significant as the p value (0.001) was less than the significance level (0.05). The equation for regression of hierarchy culture on performance is shown below.

$$Y = 3.291 + 1.513 X_4 + \varepsilon$$

Table 4.32: Regression for Hierarchy Culture and Organizational Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.291	1.504		2.188	.031
Hierarchy	1.513	.130	.059	11.638	.001

a. Dependent Variable: Organizational Performance

The finding shows that hierarchy culture has a positive influence on performance of the water companies owned by County Governments in Kenya. The finding supports that of Tseng (2010) who argued that more formalized organizations usually possess prescribed controls and processes, thus, they have better developed corporate performance because of their effective management. The finding also supports the one by Acar and Acar (2014) that hierarchy culture is positively related to organizational performance. On the contrary, empirical findings from the study by Fekete and Bocskei (2011) show that hierarchy culture had negative effect on organizational performance. A study by Zhang and Zhu (2012) about organizational culture measurements and performance of financial and marketing companies in China also found that hierarchy culture was negatively associated with organizational performance.

4.7.3 Multiple Regression Analysis

The purpose of this study was to examine the general influence of organizational culture on performance of the water companies owned by County Governments in Kenya. The study also aimed at determining the moderating consequence of leadership values on the link involving the predictor and criterion variables. The findings in the sections that follow show the model summary, analysis of variance and regression coefficients for organizational culture and performance of the water companies owned by County Governments in Kenya before moderation.

i. Model Summary Before Moderation

The results of coefficient of correlation and coefficient of determination are as shown in Table 4.33. The results illustrate that coefficient of determination (R) was 0.780, a sign of strong affirmative association among the study variables. The adjusted coefficient of determination was 0.572, which translates to 57.2%. This shows that 57.2% of the alteration in the dependent variable can be explicated by clan, adhocracy, market and hierarchy types of organizational culture. The remaining 42.8% can be elucidated by other factors beyond the scope of this study.

Table 4.33: Model Summary Before Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.780 ^a	.608	.572	1.07596

- a. Predictors: (Constant), Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture
- b. Dependent Variable: Organizational Performance

ii. ANOVA Before Moderation

Analysis of variance (ANOVA) was carried at 95% significance level. The findings of F calculated and F critical are as shown in Table 4.34. The findings show that F calculated was 211.67 and F critical was 2.446, F calculated > F critical (211.67.233>2.446). This signifies that the general regression model was momentous for the study. The p value was 0.00<0.05, an indication that at least one variable significantly influenced organizational performance.

Table 4.34: ANOVA Before Moderation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3649.20	4	912.299	211.67	.000 ^b
Residual	521.465	121	4.310		
Total	6001.968	125			

- a. Predictors: (Constant), Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture
- b. Dependent Variable: Organizational Performance

iii. Regression Coefficient Before Moderation

The following coefficients were generated while determining the individual factors influencing organizational performance of public water companies in Kenya. The findings are as indicated in Table 4.35. The findings show that holding all the variables constant, performance is at 9.673 units. The findings also show that holding all other factors constant,

as clan culture improves by one unit to performance increases by 0.627 units. A unit of variation in adhocracy culture holding all other factors constant, leads to an increase in performance by 0.986 units.

A unit change in market culture while holding other variables constant, leads to an increase in organizational performance by 2.221 units. A unit increase in hierarchy culture holding other variables constant, leads to an increase in organizational performance by 0.617 units. The p value of the study variables was less than 0.05, an indication that all the variables significantly influenced the study. It was therefore deduced that all the variables positively influenced performance of the water companies owned by County Governments in Kenya.

Table 4.35: Regression Coefficient Before Moderation

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	9.673	1.397		6.924	.000
Clan Culture	.627	.153	.555	4.093	.000
Adhocracy Culture	.986	.178	.217	5.541	.026
Market Culture	2.221	.192	.229	11.57	.019
Hierarchy Culture	.617	.158	.437	3.904	.000

The resultant equation of multiple regression becomes:

$$Y = 9.673 + 0.627X_1 + 0.986X_2 + 2.221X_3 + 0.617X_4 + \epsilon$$

Where Y= Organizational Performance, X₁ = Clan Culture, X₂ =Adhocracy Culture, X₃= Market Culture, X₄ = Hierarchy Culture and ε = Error Term

4.7.4 Effect of Moderating Variable on the Independent Variables

The outcomes of the consequence of the moderating variable on each independent variable are presented in this section. The moderating variable in this study was leadership values (self-direction, power and stimulation). This research utilized multiple regression analysis to ascertain the moderating impact of leadership values (M) on the association among the predictor and criterion variables.

i. Clan Culture, Leadership Values and Organizational Performance

Regression analysis was used to examine the influence of leadership values on clan culture and performance. From the findings in Table 4.36, the R- square for the association among clan culture and performance was 0.614. This implies that clan culture and leadership values can only explain 61.4% of variation in performance. The remaining 38.6% of variation can be elucidated by other aspects in relation to performance of the water companies owned by County Governments in Kenya. The R square value is an important indicator of the predictive accuracy of the equation. The implication of these findings is that clan culture plays a significant role in enhancing organizational performance.

Table 4.36: Model Summary for Effect of Leadership Values on Clan Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.783 ^a	.614	.599	1.00150

c. Predictors: (Constant), Clan Culture, Leadership Values

d. Dependent Variable: Organizational Performance

ii. ANOVA for Clan Culture, Leadership Values and Organizational Performance

ANOVA was applied in this investigation to determine the consequence of the regression model. The outcomes in Table 4.37 demonstrate the implication of the regression model with p value of 0.000 which was less than 0.05. The findings additionally demonstrate that the regression model was statistically momentous in envisaging the influence of leadership values and clan culture on performance of public companies in water Kenya. The ANOVA results indicate that F-critical (2, 123) was 3.06989 while the F-calculated was 97.03.

Table 4.37: ANOVA for Effect of Leadership Values on Clan Culture

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3685.21	2	1842.60	97.03	.000 ^b
Residual	2316.76	123	18.99		
Total	6001.968	125			

c. Dependent Variable: Organizational Performance, Leadership Values

d. Predictors: (Constant): Clan Culture

iii. Regression Coefficients for Clan Culture, Leadership Values and Organizational Performance

The results in Table 4.38 show that organizational performance had a positive index of 4.551 when clan culture (X_1) and leadership values were held constant. This implies that as clan culture changes by one-unit, organizational performance also changes by 0.432 units; change in leadership values by one unit, influences an increase in organizational growth by 0.523. The relationship is significant as the p value (0.001) was less than the significance level (0.05). The finding shows that clan culture and leadership values have an affirmative influence on performance of the water companies owned by County Governments in Kenya. The equation for regression of clan culture on performance is as shown below.

$$Y = 4.551 + 0.432X_1 + 0.523M + \varepsilon$$

Table 4.38: Regression Coefficients for Leadership Values and Clan Culture

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	4.551	.435		13.156	.000
Clan	.432	.124	.342	3.484	.001
Leadership	.523	.084	.633	6.246	.000

b. Dependent Variable: Organizational Performance

iv. Adhocracy Culture, Leadership Values and Organizational Performance

Regression analysis carried out to establish the effect of leadership values on adhocracy type of culture of an organization and its performance. Table 4.39 shows that the model summary for the linear regression analysis between adhocracy type of culture; leadership values and performance of an organization indicated an R-square of 0.579. This means that adhocracy type of culture and leadership values can explain a variation of 57.9% of the dependent variable. The remaining 42.1% can be elucidated by other dynamics in relation to performance of public water companies owned by County Governments in Kenya. The findings therefore indicate that adhocracy culture plays a significant role in enhancing organizational performance.

Table 4.39: Effect of Leadership Values and Adhocracy Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761 ^a	.579	.570	1.23654

a. Predictors: (Constant), Adhocracy Culture, Leadership Values

v. ANOVA for Adhocracy Culture, Leadership Values and Organizational Performance

The results in Table 4.40 demonstrate that the regression model was statistically momentous in predicting the influence of adhocracy culture on performance of the public water companies owned by County Governments in Kenya. The ANOVA results indicate that F-critical (2,123) was 3.06989 while the F-calculated was 55.93. This shows that F-calculated was greater than the F-critical hence there was a positive significant linear association among adhocracy culture, leadership values and organizational performance. The p value was 0.000, which is less than the significance level (0.05). This companies goodness of fit of the model predicting the positive and significant influence of adhocracy culture and leadership values on organizational performance.

Table 4.40: ANOVA for Effect of Leadership Values and Adhocracy

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3475.13	2	1158.38	55.93	.000 ^b
Residual	2526.83	123	20.71		
Total	6001.96	125			

a. Predictors: (Constant), Adhocracy Culture, Leadership Values

b. Dependent Variable: Organizational Performance

vi. Regression Coefficients for Adhocracy Culture, Leadership Values and Organizational Performance

The results in Table 4.41 show that organizational performance had a positive index of 7.733 when adhocracy culture (X_2) was held constant. This implies that as adhocracy culture improves by one-unit, organizational performance increases by 0.527 units and a unit increase in leadership values would lead to an increase of 0.597 in organizational performance. The relationship is significant as the p value (0.000) was less than the significance level (0.05). The finding shows that adhocracy culture and leadership values had a positive influence on performance of the public water companies owned by County Government in Kenya. The equation for regression of adhocracy type of culture on performance is shown as:

$$Y = 7.733 + 0.527X_2 + 0.597M + \epsilon$$

Table 4.41: Regression for Adhocracy Culture and Leadership Values

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	7.733	1.568		4.932	.000
Adhocracy	.527	.245	.222	2.151	.000
Leadership	.597	.082	.706	7.243	.000

b. Dependent Variable: Organizational Performance

vii. Market Culture, Leadership Values and Organizational Performance

Regression analysis was used to examine the influence of the moderating variable on market type of culture and performance. Table 4.42 illustrates that the model summary for the linear regression analysis among market type of culture and performance indicates an R-square of 0.586. This implies that market culture and leadership values can explain a variation of 58.6% of performance. The remaining 41.4% can be elucidated by other dynamics in relation to performance of the public water companies owned by County Governments in Kenya.

Table 4.42: Effect of Leadership Values and Market Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766 ^a	.586	.563	1.25574

a. Predictors: (Constant), Market Culture, Leadership Values

b. Dependent Variable: Organizational Performance

viii. ANOVA for Market Culture, Leadership Values and Organizational Performance

The results in Table 4.43 demonstrate that the regression model is statistically momentous in envisaging the influence of market culture on performance of the public water companies owned by County Governments in Kenya. F-critical (3,122) was 2.6789 while the F-calculated was 57.563. This shows that F-calculated is greater than the F-critical hence there is a positive major linear relationship between market type of culture and performance.

Table 4.43: ANOVA for Market Culture and Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3517.153	3	1172.384	57.563	.000 ^b
Residual	2484.815	122	20.367		
Total	6001.968	125			

a. Predictors: (Constant): Market Culture, Leadership Values

b. Dependent Variable: Organizational Performance

ix. Regression Coefficients for Market Culture, Leadership Values and Organizational Performance

The results in Table 4.44 show that organizational performance had a positive index of 3.478 when market culture (X_3) was held constant. This implies that as market culture improves by one-unit, organizational performance increases by 0.532 units. A unit increase in leadership values when holding other factors constant, organizational performance would increase by 1.027. The relationship is significant as the p value (0.031) was less than the significance level (0.05). The finding shows that market culture and leadership values have an affirmative influence on performance of the public water companies owned by County Governments in Kenya. The equation for regression of market type of culture on performance is shown below.

$$Y = 3.478 + 0.532X_3 + 1.027M + \varepsilon$$

Table 4.44: Regression Coefficients for Market Culture and Leadership Values

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.478	1.372		2.535	.157
Market	.532	.133	.342	3.932	.031
Leadership	1.027	.103	1.422	9.947	.000

b. Dependent Variable: Organizational Performance

x. Hierarchy Culture, Leadership Values and Organizational Performance

Regression analysis was applied to determine the effect of leadership values on hierarchy culture and performance. The outcomes in Table 4.45 demonstrate that the R-square for the relation involving hierarchy culture and performance was 0.642. This means that hierarchy culture and leadership values can explain 64.2% change of the dependent variable. The remaining 35.8% can be explained by other dynamics in respect of performance of public the water companies owned by County Governments in Kenya.

Table 4.45: Effect of Leadership Values on Hierarchy Culture

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.801 ^a	.642	.604	1.23587

a. Predictors: (Constant), Hierarchy Culture, Leadership Values

b. Dependent Variable: Organizational Performance

xi. ANOVA for Hierarchy Culture, Leadership Values and Organizational Performance

ANOVA was applied in this study to ascertain the consequence of the regression model. The outcome in Table 4.46 demonstrates the implication of the regression model with p value of 0.000 which is less than 0.05. The outcome additionally exhibits that the regression model is statistically momentous in envisaging the influence of hierarchy culture on performance of the public water companies owned by County Governments in Kenya. The ANOVA results indicate that F-critical (3,122) was 2.6789 while the F-calculated was 72.927.

Table 4.46: ANOVA for Hierarchy Culture Leadership Values

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3853.263	3	1284.421	72.927	.000 ^b
Residual	2148.705	122	17.612		
Total	6001.968	125			

a. Predictors: (Constant), Market Culture

b. Dependent Variable: Organizational Performance

xii. Regression Coefficients for Hierarchy Culture, Leadership Values and Organizational Performance

The results in Table 4.47 show that organizational performance had a positive index of 7.338 when hierarchy culture (X_4) was held constant. This implies that as hierarchy culture improves by one-unit, organizational performance increases by 1.358 units. A unit increase in leadership values would lead to an increase of 9.351 units in performance. The relationship is significant as the p value (0.001) is less than the significance level (0.05). The finding shows that leadership values and hierarchy culture have an affirmative effect on performance of the public water companies owned by County Governments in Kenya. The equation for regression of hierarchy type of culture on performance is as shown as:

$$Y = 7.338 + 1.358X_4 + 9.351M + \varepsilon$$

Table 4.47: Regression for Hierarchy Culture and Leadership Values

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	7.338	1.223		6.000	.031
Hierarchy	1.358	.125	.257	10.864	.001
Leadership	9.351	.078	1.114	10.950	.000

a. Dependent Variable: Organizational Performance

4.7.5 Model Summary After Moderation

The model summary for multiple linear regression analysis between leadership values, clan, adhocracy, market and hierarchy culture types and performance indicated that the adjusted R-square value was 0.579 as illustrated by Table 4.49. The results therefore indicate that 57.9% of the change of the dependent variable is caused by the independent variables and the moderating variable (leadership values). 42.1% of the residual can be explained by factors beyond the current study. The finding is also in line with that of Aktas *et al.* (2011) that leadership values in an organization have critical importance due to shaping of behaviour and attitude of a leader since leadership is one of the key driving forces for improving firm performance.

Table 4.48: Model Summary After Moderation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.775 ^a	.602	.579	1.95320

a. Predictors: (Constant), Leadership Values, Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture

i. ANOVA After Moderation

The study conducted analysis of variance at 95% confidence level. The findings of F calculated and F critical are indicated in Table 4.49. The findings indicate that F calculated was 182.169 and F critical was 2.289. Since F calculated > F critical, this is an indication that the overall regression was significant for the study. The p value was 0.00 < 0.05; an indication that at least one variable significantly influenced performance of the public water companies. Therefore, when the moderating effect of leadership values was added at the point of multiple regression analysis, it was confirmed that all the variables significantly influenced performance of the water companies.

Table 4.49: ANOVA After Moderation

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3474.876	5	694.975	182.169	.000 ^b
Residual	457.801	120	3.815		
Total	6001.968	125			

a. Predictors: (Constant), Leadership Values, Hierarchy Culture, Adhocracy Culture, Clan Culture, Market Culture

b. Dependent: Organizational Performance

ii. Regression Coefficient After Moderation

The coefficients shown in Table 4.50 were generated while determining the individual factors influencing performance of water companies. The findings as indicated in the Table show that holding all the variables constant, organizational performance would be at 5.186. A unit change in clan type of culture holding all other factors constant, leads to an increase in performance by 0.363 units. A unit change in adhocracy type of culture holding all other factors constant, leads to an increase in performance by 0.565 units. A unit change in market type of culture holding all other factors constant, leads to an increase in performance by 0.324 units. A unit increase in adhocracy culture while other factors are held constant, leads to an increase in performance by 0.364 units. A unit change in leadership values while other factors are held constant, leads to an increase in performance by 2.414 units. The p values of clan, adhocracy, market and hierarchy types of culture and leadership values were less than 0.05, an indication that the variables significantly influenced performance of the water companies.

Regression coefficient results in respect of Table 4.42 also show that hierarchy type of culture had an affirmative and momentous influence on performance as supported by a p value of $0.023 < 0.05$. Market type of culture had a positive and significant influence on performance as shown by a p value of $0.038 < 0.05$. It was further established that adhocracy type of culture had an affirmative and a considerable effect on performance as illustrated by a p value of $0.04 < 0.05$. Lastly, clan type of culture had a positive and significant influence on performance as supported by a p value of $0.026 < 0.05$.

Table 4.50: Regression Coefficient After Moderation

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	5.186	1.713		3.028	.003
Clan Culture	.363	.161	.257	2.252	.026
Adhocracy Culture	.565	.192	.429	2.944	.004
Market Culture	.324	.170	.121	1.904	.038
Hierarchy Culture	.364	.158	.322	2.306	.023
Leadership Values	2.414	.145	.699	4.085	.000

a. Predictors: (Constant), Leadership Values, Clan Culture, Adhocracy Culture, Market Culture, Hierarchy Culture

b. Dependent: Organizational Performance

The resultant equation becomes:

$$Y = 5.186 + 0.363X_1 + 0.565X_2 + 0.324X_3 + 0.364X_4 + 2.414M + \varepsilon$$

Where: Y = Organizational Performance, X₁ = Clan Culture, X₂ = Adhocracy Culture, X₃ = Market Culture, X₄ = Hierarchy Culture, M = Leadership values as the moderator, ε = Error Term.

4.7.6 Hypotheses Testing

Generally, p values have values between 0 and 1. The closer the p value is to zero, the more robust the evidence that the alternative hypothesis should be allowed. Hypothesis testing was carried out at 5% level of significance and SPSS Version 23.0 was used for this purpose. The results of the hypotheses testing show that the five hypothesized relationships were all statistically significant meaning that they all contributed immensely to organizational performance.

H_{1a}: There is significant influence of clan culture on performance public water companies in Kenya.

To test this hypothesis, linear regression was performed to determine the level of significance of the association among clan culture and performance of the public water companies owned by County Governments in Kenya. The Beta coefficient (β₁) is 0.392 as shown in Table 4.23. The relationship is significant as the p value (0.001) is less than the significance level (0.05), and in addition, the t-calculated (3.511) is greater than the t-critical value (1.645). Since the p value is less than 0.05, the study accepted the alternative hypothesis and it was therefore concluded that there is significant influence of clan culture on performance of water companies. This indicates clan culture has an affirmative influence on performance of the

public water companies owned by County Governments in Kenya. The finding agrees with that of Acar and Acar (2014) that clan culture had a positive and significant effect on performance in Turkish hospitals.

H_{1b}: There is significant influence of adhocracy culture on performance of public water companies in Kenya.

To test this hypothesis, linear regression was performed to examine the level of significance of the association involving adhocracy culture and performance of the public water companies owned by County Governments in Kenya. The beta coefficient (β_2) is 0.327 as shown in Table 4.26; the p value is $0.000 < 0.05$, which is less than the significance level (0.05) as the t-calculated (2.647) is greater than the t-critical value (1.645). Based on these findings and given that the p value is less than 0.05; the study accepted the alternative hypothesis and it was therefore concluded that there is significant influence of adhocracy culture on performance of water companies. This signifies that performance of public water companies in Kenya is positively influenced by adhocracy culture. This finding agrees with that of Zhang and Zhu (2012) who found in their study that adhocracy culture had a positive impact on performance of 25 enterprises of 9 provinces in China.

H_{1c}: There is significant influence of market culture on performance of public water companies in Kenya.

To test this hypothesis, linear regression was performed to determine the level of implication of the correlation involving adhocracy culture and performance of the public water companies owned by County Governments in Kenya. The Beta coefficient (β_3) is 0.352 as shown in Table 4.29, the p value is $0.031 < 0.05$, an indication that the variable significantly influenced organizational performance. The t-calculated 2.186 is greater than the t-critical value (1.645). Since p value is $0.000 < 0.05$, the study accepted the alternative hypothesis and it was therefore concluded that there is an affirmative link relating to market culture and performance of the public water companies owned by County Governments in Kenya. This implies that a variation in market culture causes a variation in performance. This finding agrees with that of Acar and Acar (2014) that market culture had a positive and significant affect on performance in Turkish hospitals.

H_{1d}: There is significant influence of hierarchy culture on performance of public water companies in Kenya.

To test this hypothesis, linear regression was performed to determine the level of impact of correlation involving hierarchy culture and performance of public water companies in Kenya. The Beta coefficient (β_4) is 1.513 as shown in Table 4.32. The relationship is significant as the p value (0.001) is less than the significance level (0.05), and also, the t-calculated (11.638) is greater than the t-critical value (1.645). Since the p value is less than 0.05, the study accepted the alternative hypothesis and it was therefore concluded that there is an affirmative association linking hierarchy culture and performance of water companies. This finding agrees with that of Acar and Acar (2014) that hierarchy culture had a positive and significant influence on organizational performance in Turkish hospitals.

H_{1e}: Leadership values have significant moderating effect on the relationship between organizational culture and performance of public water companies in Kenya.

Clan culture has a considerable influence on performance of public water companies as the beta coefficient (β_1) is 0.432 (p value=0.001) as illustrated in Table 4.38. Leadership values have a considerable effect on performance as illustrated by a beta coefficient (β_2) of 0.523 (p value=0.000). Given that the p value is 0.000 which is less than 0.05, the study accepted the alternative hypothesis and it was therefore concluded that leadership values have a moderating consequence on the association between organizational culture and performance of water companies. The interface between leadership values and clan culture is significant implying that leadership values have a significant moderating effect between clan culture and performance of the public water companies.

Adhocracy type of culture has a significant influence on performance of water companies since the beta coefficient (β_1) is 0.527 (p value=0.000) as illustrated by Table 4.41. Leadership values have a considerable effect on performance as illustrated by a beta coefficient (β_2) of 0.597 and p value of 0.000. From the results, the study did not to reject the alternative hypothesis and concluded that the interface between leadership values and adhocracy culture is significant. This implies that leadership values have a significant moderating effect between adhocracy culture and performance of the water companies.

Market culture has a significant influence on performance of the water companies because the beta coefficient (β_1) is 0.532 (p value=0.031) as illustrated by Table 4.44. Leadership values

have a noteworthy effect on performance as illustrated by a beta coefficient (β_2) of 1.027 and the p value is 0.000 which is less than 0.05; an indication that the leadership values significantly influence market culture. The study therefore failed to reject the alternative hypothesis and concluded that the variables (market culture and leadership values) significantly influence organizational performance. The interaction term between leadership values and market culture is significant implying that leadership values have a significant moderating effect between market culture and performance of the water companies.

Hierarchy culture has a significant influence on performance of the water companies since the beta coefficient (β_1) is 1.358 (p value =0.001) as illustrated by Table 4.47. Leadership values have a momentous effect on performance as illustrated by a beta coefficient (β_2) of 9.351 (p value=0.000). Consequently, the study failed to reject the alternative hypothesis and concluded that leadership values significantly influenced organizational performance. The findings therefore show that hierarchy culture significantly influences organizational performance. The interaction term between leadership values and hierarchy culture is significant implying that leadership values have a significant moderating effect between hierarchy culture and performance of the water companies.

4.7.7 Optimal Model

The study aimed at finding out the influence of organizational culture on performance of the public water companies owned by County Governments in Kenya. The model; $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ explains the variation in performance as illustrated by Table 4.25. The adjusted R^2 changed from 57.2% to 57.9% as illustrated by Table 4.40 meaning that leadership values have a moderating impact on the affiliation involving organizational culture and performance of the water companies. Based on the results in Table 4.42, an optimal conceptual framework (optimal model) on the influence of organizational culture on performance of public water companies in Kenya was derived as indicated by Figure 4.10.

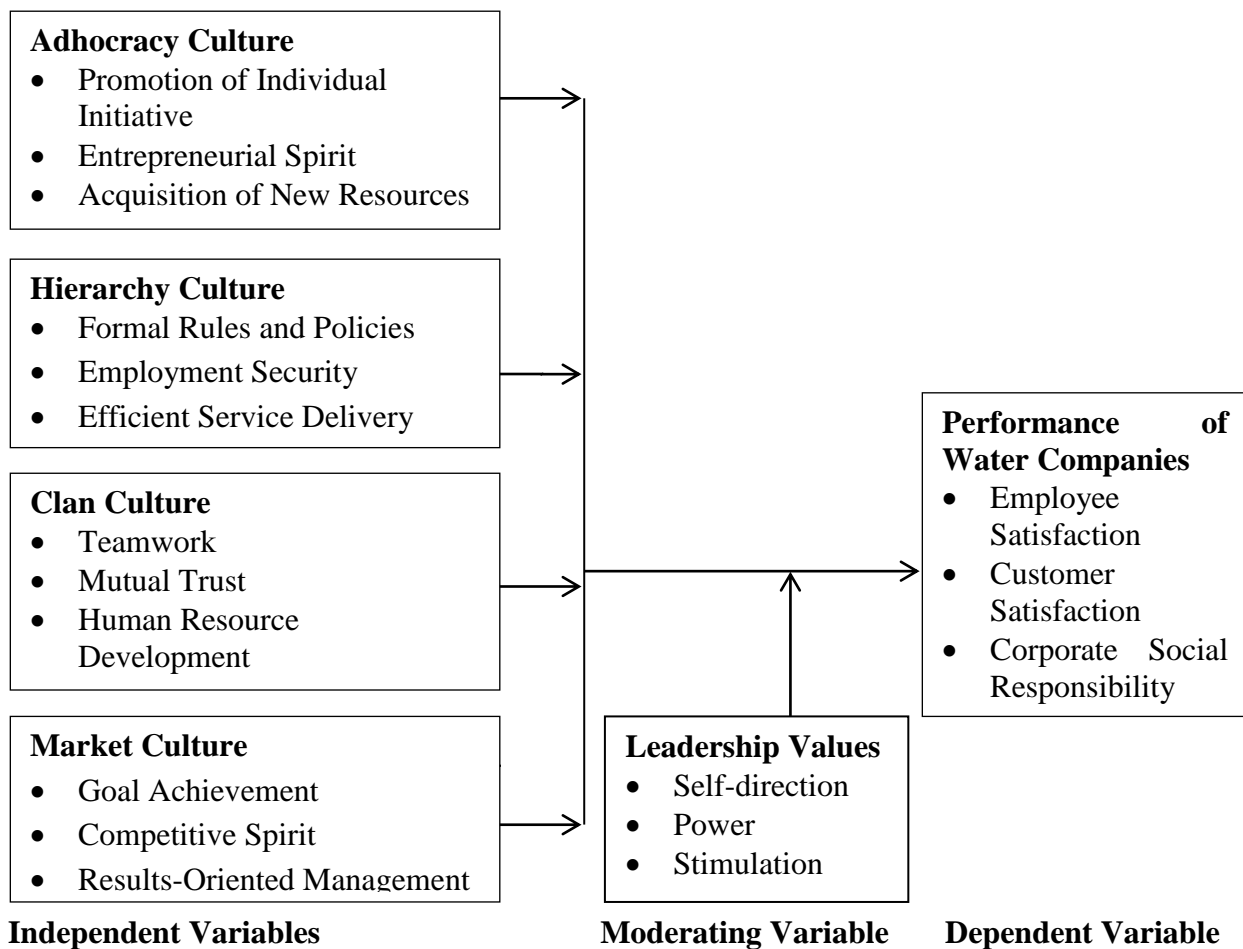


Figure 4.10: Optimal Model

The variables were re-arranged in order of significance as follows: adhocracy type of culture, hierarchy type of culture, clan type of culture and lastly market type of culture. Based also on the outcome of the joint regression coefficient as indicated in Table 4.42, a joint optimal regression model was derived. The resultant equation of multiple regression becomes:

$$Y = 5.186 + 0.565X_1 + 0.364X_2 + 0.363X_3 + 0.324X_4 + 2.414M + \epsilon$$

Where: Y = Organizational Performance, X_1 = Adhocracy culture X_2 = Hierarchy culture, X_3 = Clan culture, X_4 = Market culture, M = Leadership values as the moderator, and ϵ = Error term

Thus,

$$\text{Organizational Performance} = 5.186 + 0.565\text{Adhocracy culture} + 0.364\text{Hierarchy culture} + 0.363\text{Clan culture} + 0.324\text{Market culture} + 2.414\text{Leadership values} + \text{Error term.}$$

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter deals with the summation of the study outcomes and inferences on the premise of the research objectives. Key findings of the research are discussed followed by the main conclusions, recommendations and lastly suggestions for further studies. The study sought to add some information to the existing knowledge and comprehension on the theme of the influence of organizational culture on performance of public companies in the water segment in Kenya and in particular the ones owned by the County Governments.

5.2 Summary of Key Findings

The broad rationale for this research was to examine the influence of organizational culture on performance of public water companies in Kenya. The study also aimed at ascertaining the moderating consequence of leadership values on the association involving organizational culture and performance of the water companies. This was important because the public water companies are major players in the socio-economic development of Kenya. The results and findings of the study indicated that organizational culture had an impact on performance the public water companies.

5.2.1 Influence of Clan Culture on Performance of Public Water Companies in Kenya

The first purpose of the study was to establish the influence of clan type of culture on performance of the water companies. Descriptive and inferential statistical methodologies were utilized to analyse the findings of this research objective. The results indicated that clan culture had significant influence on performance of the water companies. Correlation analysis was carried out to establish the kind of association involving clan type of culture and performance of the public water companies owned by County Governments in Kenya. The study found that clan culture had a Pearson correlation of 0.748, an indication of strong positive correlation with organizational performance. The results of the regression analysis established that clan type of culture explained 58.4 % of change in performance (dependent variable). The remaining 41.6% of the variation could be elucidated by other dynamics in relation to performance of the public water companies. The results therefore indicate that clan culture had a positive correlation with performance of the water companies.

5.2.2 Influence of Adhocracy Culture on Performance of Public Water Companies in Kenya

The second purpose of this study was to observe the effect of adhocracy culture on performance of the public water companies. The indicators of adhocracy culture taken into consideration were promotion of individual initiative, entrepreneurial leadership and acquisition of new resources. Descriptive and inferential statistical methods were used to analyse the results and findings of this research objective. The results indicated that adhocracy culture had significant effect on performance of the water companies.

Correlation analysis was carried out to establish the kind of association involving adhocracy culture and performance of public water companies. The investigation found that adhocracy culture had a Pearson correlation of 0.837, an indication of strong positive correlation with organizational performance. The results of the regression analysis established that adhocracy culture explained 54.3 % of change in performance. The remaining 45.7% of the variation could be elucidated by other aspects in relation to the performance of the water companies. The results therefore signify that adhocracy culture had a positive significant outcome on performance of the water companies.

5.2.3 Influence of Market Culture on Performance of Public Water Companies in Kenya

The third purpose of this study was to determine the influence of market culture on performance of the public water companies. The indicators of market culture taken into consideration were goal achievement, competitive spirit and results-oriented leadership. Descriptive and inferential statistical methodologies were utilized to assess the findings of this study objective. The results indicated that market culture had a great effect on performance of the water companies.

Correlation analysis was carried out to establish the association involving market culture and performance of the water companies. The study found that market culture had a Pearson correlation of 0.628, an indication of strong positive correlation with organizational performance. The results of the regression analysis established that market culture explained 56.7% of variation in performance. The remaining 43.3% of the variation could be elucidated by other causes in relation to the performance of the water companies. The results therefore indicate that market culture had a positive significant influence on performance of the public water companies owned by County Governments in Kenya.

5.2.4 Influence of Hierarchy Culture on Performance of Public Water Companies in Kenya

The fourth purpose of this research was to investigate the effect of hierarchy culture on performance of the public water companies owned by County Governments in Kenya. The indicators of hierarchy culture taken into consideration were formal rules and policies, employment security and efficient service delivery. Descriptive and inferential statistical methods were used to analyse the results and findings of this research objective. The results indicated that hierarchy culture had considerable effect on performance of the water companies.

Correlation analysis was carried out to establish the kind of association involving hierarchy type of culture and performance of the water companies. The study found that hierarchy culture had a Pearson correlation of 0.799, an indication of strong positive correlation with organizational performance. The results of the regression analysis established that hierarchy culture explained 57.8% of variation in performance. The remaining 42.2% of the variation could be elucidated by other causes in relation to the performance of water companies. The results therefore indicate that hierarchy culture had a positive significant effect on performance of the public water companies in Kenya.

5.2.5 Moderating Effect of Leadership Values on the Relationship Between Organizational Culture and Performance of Public Water Companies in Kenya

The last purpose of the research was to observe the moderating impact of leadership values on the affiliation involving organizational culture and performance of the water companies. This research utilized correlation and multiple regression analyses to ascertain the moderating impact of leadership values on the affiliation involving the independent and the dependent variables. Correlation analysis was undertaken to ascertain the moderating impact of leadership values on the affiliation involving culture and performance of the water companies. The study established that leadership values had a Pearson correlation of 0.651. This indicates that leadership values had a moderating impact on the affiliation involving culture and performance of the public water companies owned by County Governments in Kenya. The key results of the moderating impact of leadership values on the relationship involving each of the independent variables and performance of the water companies is summarized in the following pages.

Regression analysis was utilized to observe the consequence of leadership values on clan culture and performance. The findings of the regression analysis established that clan culture and leadership values explained 61.4% of the variation in performance. The remaining 38.6% of the variation could be elucidated by other causes in relation to performance of the water companies. The results hence indicate that clan culture and leadership values had a positive influence on performance of the public water companies in Kenya.

To determine the effect of leadership values on adhocracy culture and performance, regression analysis was utilized. The findings of the regression analysis established that adhocracy type of culture and leadership values explained 57.9% of variation performance of the public water companies in Kenya. The remaining 41.2% of variation could be elucidated by other aspects in relation to performance of the public water companies owned by County Governments in Kenya. The results thus show that adhocracy culture and leadership values had a positive influence on performance of the public water companies owned by County Governments in Kenya.

To examine the outcome of leadership values on market type of culture and performance, regression analysis was utilized. The findings of the regression analysis ascertained that market culture and leadership values explained 58.6% of the variation in performance. The remaining 41.4% of the variation could be elucidated by other aspects in relation to performance of the public water companies owned by County Governments in Kenya. The results consequently indicate that market culture and leadership values had a positive influence on performance of the public water companies in Kenya.

Regression analysis was utilized to observe the results of leadership values on hierarchy culture and performance of public water companies in Kenya. The findings of the regression analysis ascertained that hierarchy culture and leadership values explained 64.2% of variation in performance. The remaining 35.8% of variation could be elucidated by other aspects in relation to the performance of the public water companies. The results consequently indicate that hierarchy culture and leadership values had an affirmative influence on performance of the public water companies in Kenya.

The model summary for multiple linear regression investigation involving leadership values, clan, adhocracy, market and hierarchy kinds of organizational culture and performance

indicated that the adjusted R-square value was 0.579. This means that 57.9% of the change of the dependent variable was caused by the independent variables and the moderating effect of leadership values while 42.1% of the residual could be explained by other factors beyond the current study. Regression results therefore show that leadership values had a noteworthy moderating outcome on the link involving organizational culture and performance of public water companies in Kenya. This was supported by the change in the adjusted R^2 of 57.9% after moderation compared to the adjusted R^2 of 57.2% prior to the moderation effect.

5.3 Conclusions

The general purpose of this study was to examine the influence of organizational culture on performance of public water companies in Kenya. The outcome of the research revealed that organizational culture has a considerable association with performance of the public water companies. The research in addition found that the four (clan, adhocracy, market and hierarchy) types of the CVF model of organizational culture have a strong influence on organizational performance and leadership values have a moderating effect on the relationship.

This study provides additional empirical evidence from the water sector in Kenya to the research stream on organizational culture. The results of this research present both a theoretical and an empirical case arguing that organizational culture and leadership values are imperative for improving performance of a firm. The research advanced discussions on the authenticity of organizational culture based on the four types of culture in respect of the CVF model and organizational performance by demonstrating their applicability in the public water companies owned by County Governments in Kenya.

This study also confirms the results of the CVF model and from the findings, some conclusions can be made. According to the descriptive and inferential statistics, it was found that the dominant organizational culture in the public water companies in Kenya is adhocracy type of culture and it was followed by hierarchy type of culture, clan and market types of culture respectively. It was in addition established that the four types of the CVF model pertaining organizational culture had considerable affirmative association with performance of public water companies in Kenya.

The first conclusion drawn from the study findings is that the clan culture positively influences the performance of public water companies in Kenya as indicated by the correlation analysis results. In relation to hypothesis one, it was found that there was significant positive relationship involving clan type of culture and organizational performance. Organizations in which clan culture exists encourage broad participation by employees, give emphasis to teamwork and make human resource development a priority. Teamwork among employees and their leaders in an organization creates a sense of belonging through empowering employees and improving their skills.

The second conclusion that is drawn from the study is that adhocracy culture positively influences the performance of public water companies in Kenya as observed from the correlation analysis results and hypothesis testing results. The correlation and hypothesis testing results established that the relationship between adhocracy culture and performance of the public water companies is statistically significant. Adhocracy culture encourages employees to focus on client contentment and support initiatives that will keep pace with changes in their environment. This result implies that public water companies in Kenya need to pay more attention to adhocracy culture related characteristics and endeavour to implement them.

The third conclusion drawn from the study findings is that market culture positively influences the performance of public water companies in Kenya. The correlation analysis and the hypothesis testing results showed a statistically significant positive relationship between market culture and performance of public water companies. Public water companies have missions geared towards satisfying the needs of their customers. These missions are supposed to propel employees and management to work diligently individually and collectively towards their achievement which ultimately lead to customer satisfaction and enhanced organizational performance.

The fourth conclusion drawn from the study is that hierarchy culture has a positive influence on the performance of public water companies in Kenya. The correlation analysis and the hypothesis testing results showed a statistically significant positive relationship between hierarchy culture and performance of public water companies. Hierarchy culture provides a central source of integration, coordination and control. Coordination and integration enable

different functions and units of an organization to work well together to achieve common goals including minimization of waste and efficient use of resources.

The fifth conclusion drawn from the study findings is that according to regression analysis; clan culture, adhocracy culture, market culture and hierarchy culture have positive influence on the performance of public water companies in Kenya. Hypothesis testing established that there is statistically significant relationship between organizational culture and performance of public water companies in Kenya.

The sixth conclusion drawn from the study is that leadership values have a positive influence on the relationship between clan culture, adhocracy culture, market culture and hierarchy culture and performance. Hypothesis testing established that leadership values moderate the relationship between organizational culture and performance of public water companies in Kenya. Organizational culture represents an active and living phenomenon by which leadership in an organization creates shared meaning. Leaders also play a central role in shaping the culture of an organization. Therefore leaders and managers in public water companies should consider implementing the four types of organizational culture and foster appropriate leadership values so as to realize enhanced and sustainable performance of their organizations.

5.4 Recommendations

Organizational culture is a key aspect not only in enhancing performance, but also in attracting and retaining talented employees, creating a positive public image and building mutual rapport with stakeholders. Several recommendations have been made to stakeholders and policy makers in the water sector including the National and County Governments of Kenya based on the findings of the study.

5.4.1 Recommendations on Research Findings

First, public water companies should pay keen attention to teamwork, mutual trust and human resource development in order to enhance clan culture which is full of shared values, common goals, unity, mutual help and an emphasis on employee progression. Clan type of culture is full of shared values and common goals, an atmosphere of unity and mutual help, and an emphasis on employee progression. When employees use their skills and knowledge together, the result is a stronger organization that can fulfill its mission.

Secondly, adhocracy culture statistically significantly influences performance of performance of public water companies in Kenya. Hence, public water companies should pay keen attention to adhocracy culture by creating a favourable environment for promotion of individual initiative, entrepreneurial spirit and acquisition of new resources in order to enhance and sustain improved performance. The desire for customer satisfaction should also spur public water companies to engage in activities geared towards improvement in service delivery. To enhance performance therefore, public water companies have to continuously adapt to different levels of environmental changes. Organizations that have the ability to adjust to changes in their environment are presumed to be more sustainable than those that do not have such ability.

Thirdly, public water companies in Kenya should prioritize goal achievement, competitive spirit and results-oriented management for sustainable performance. Hypothesis testing established that there was a statistically significant relationship between market culture and organizational performance. Organizations within the market culture are characterized by clarity of tasks and goals that address attention to efficiency and measurable outcomes. Goals give a sense of direction to members of an organization and provide a standard for assessment. Criteria of success are based upon target achievements by individuals, which are usually conducted from activities that connect the organization with its stakeholders. Success is more likely when employees are dedicated to the realization of a firm's goals. The level of a public water company's performance, whether in terms of water sales, hours of water supply, revenue collection efficiency, potable water quality, reduction in non-revenue water, water coverage or number of complaints received and addressed needs a basis for evaluation. This will definitely make it possible for the public water companies in Kenya to enhance their product/service quality, financial sustainability and overall performance.

Fourth, public water companies in Kenya should ensure that they have documented formal rules and policies and endeavour to prioritize activities geared towards employment security and efficient service delivery. A formalized and structured place along with procedures, well-defined processes and a smooth-running organization are often regarded as the main characteristics of hierarchy culture. The lasting concern of this kind of culture is the constancy, certainty, and success in an organization.

Fifth, leadership values increased the influence of clan culture, adhocracy culture, market culture and hierarchy culture on performance of public water companies in Kenya. This shows the important role leadership values play on performance of public water companies in Kenya. The personality impact of leaders in an organization on the competence approaches is seen in terms of their values. Leaders in public water companies in Kenya should therefore create strategic visions, disseminate those visions and inspire obligation aimed at achieving of the visions of their organizations. This is because leadership values in an organization have critical importance due to the shaping of the behaviour and attitude of the leaders. Leadership values of self direction, power and stimulation should therefore be promoted in public water companies in Kenya because they play a very significant role in shaping organizational culture which in turn influences performance. This may be a vital aspect to put into consideration when developing criteria for engagement of leaders and managers of public water companies in Kenya.

5.4.2 Management Recommendations for Public Water Companies in Kenya

Leaders of the water companies owned by the County Governments need to regard organizational culture as an essential component pertaining to the performance of their organizations. To ensure that public water companies attain high and sustainable performance, they need to create and maintain clan type of culture exemplified by joint effort and mutual trust for employees to be committed to their work and organizations. Leaders and managers of the public water companies need to emphasize human resource development as one of the success factors. They should also exemplify mentoring and nurturing characteristics and ensure that their organizations define accomplishment based on concern for employees.

Public water companies' leadership and management should ensure that their organizations are characterized by adaptability to their external environment. This may be achieved through developmental (adhocracy) organizational culture that emphasizes new products and service development, growth, change and productivity designed to satisfy external stakeholders. Managers ought to build their organizations by developing a compelling vision and emphasizing new ideas, dynamism and entrepreneurship oriented to the future. Organizational type of culture that is characterized by adaptability to its external environment has the potential to positively affect performance outcomes. Leaders and managers of public water companies in Kenya ought to build their organizations by clarifying objectives and improving performance through hard work and productivity. Organizations in which efficiency and achievement is the norm motivate employees by setting challenging yet attainable goals and

by providing feedback on employee performance, which in turn promotes awareness of proficiency and sentiments of self-efficiency and collective efficacy.

A significant role in achieving high organizational performance is played by leaders and managers whose personal qualities and skills determine organizational strategy, goals and results to be achieved. Leaders and managers of the public water companies ought to develop and implement formal processes, policies and procedures to ensure internal efficiency, uniformity, coordination and evaluation to guide the behaviour, conduct and performance of a firm's members. Leadership values of self-direction, power and stimulation should be adopted and customized by leaders of the public water companies owned by the County Governments. This is because they play a very momentous role in shaping organizational culture thus influencing performance of the public water companies. Leadership values can then be a very vital factor to consider when setting recruitment and selection criteria for leadership and managerial positions in public the owned by County Governments in Kenya.

5.4.3 Human Resource Practitioners, Researchers and Scholars

HR practitioners should put structures in place to enable the bundling together of the four types of organizational culture because they have a synergistic link so that the impact of each on organizational performance is enhanced when the others are present than when used individually with leadership values playing a significant moderating role. The findings of this study should also enable researchers and scholars undertake further research and grow the body of knowledge pertaining to the link principally involving organizational culture and performance and generally other related areas.

5.4.4 Policy Implications of the Study

The results of this study will inform adoption of appropriate organizational culture which promotes teamwork, mutual trust, human resource development, new products development, efficient service delivery, setting of challenging yet attainable goals and development and implementation of formal policies and procedures in order to enhance performance. The leaders and managers of the public water companies in Kenya will significantly gain from the results of this research on the premise that they will be in a position to understand better the function and value of an organization's culture and its influence on performance. This understanding should lead to the development and application of appropriate organizational culture practices in the public water companies owned by the County Governments.

The study provides recommendations to the National Government of Kenya policy makers on the prevailing culture in the public water companies in the country which are the agents mandated to provide water services in the counties. The study also provides recommendations to the County Governments as the sole owners of the public water companies since the provision of water services is a devolved function as per the Constitution of Kenya. It would seem that the culture espoused by most of the public water companies is not yielding positive effects on service delivery by the organizations, hence the poor performance noted over the years. It is recommended that productivity can be enhanced through team orientation, human resource development and adoption of entrepreneurship culture. It is also recommended to the managers of the public water companies that they need to recognize the significance of organizational culture and its outcome on a firm's performance. This will motivate them to create and implement appropriate organizational culture that will enable their respective companies to realize improved and sustainable performance.

5.5 Suggestions for Further Studies

The findings show that the four (clan, adhocracy, market and hierarchy) kinds of organizational culture in respect of the CVF model affect a firm's performance. This research has made a contribution to the ongoing investigation on the influence of organizational culture and a firm's performance by examining all the four culture types in respect of the CVF model. The study also examined the moderating role of leadership values on the link between organizational culture and performance of water public companies owned by the County Governments. Since organizational culture gets developed and changes over time through shared experiences, future researchers can consider undertaking a longitudinal study of these variables to establish the cause-and-effect relationships over time in order to establish the degree to which the findings can be generalized to other organizations in Kenya. Subsequent studies can also consider replicating this study in privately owned water companies in Kenya with a view to establishing the consequence of organizational culture on their performance.

The rationale for this research was to determine the influence of an organizational culture on performance of public water companies owned by the County Governments in Kenya. Further studies may possibly consider investigating the effect of a firm's culture on productivity of other public enterprises with a view to comparing the resultant findings with the ones of the current research. The choice of public hospitals in Kenya would be appropriate because they

also fall under the service sector (non-profit making entities) like the public water companies. Similar studies can also be done in other sectors of the economy such as the private sector. Last but not least, future researchers may consider introducing different moderating variables other than leadership values in testing the moderating effect on the consequence of organizational culture on performance of the public water companies owned by the County Governments. This is because as much as this study used this variable; there are other variables which may moderate the effect of organizational culture on performance of public water companies in Kenya, for instance, business strategy and/or strategic human resource management practices.

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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

GORDON K. MISIGO
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NAIROBI
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Dear Respondent,

REF: DATA COLLECTION

I am a student at the Jomo Kenyatta University of Agriculture and Technology pursuing a Doctorate Degree in Human Resource Management. I am currently conducting a research on the *Influence of Organizational Culture on Performance of Public Water Companies in Kenya*. The intention of this letter therefore is to request you to spare a few minutes and respond to the attached questionnaire. As a representative of your company, your views are of importance in my study and I would appreciate you responding to this questionnaire. The information given will be utilized exclusively for scholarly purpose and will be handled confidentially.

Thank you for your support.

Yours faithfully,

Gordon K. Misigo

APPENDIX II: SURVEY QUESTIONNAIRE

Please read each question carefully and follow the instructions given. Kindly answer the questions by ticking in the box that best describes your answer or writing your answers in the spaces provided where applicable. The answers provided will be used for academic purpose only and will be treated confidentially.

1. PART 1: BACKGROUND INFORMATION

This section of the questionnaire refers to background information.

1.1 Please indicate your gender by ticking against the relevant box.

Male Female

1.2 What is your age in years? (Tick one)

21-30 31-40 41-50 51-60

1.3 What is the highest level of learning you have attained? (Tick one)

Secondary/O level Certificate Diploma Bachelor's degree Master's degree

1.4 Please state your job category by ticking against the relevant box.

Top Management Middle Management Operative

1.5 How long have you worked for your current organization? (Tick one)

Below 5 years 5- 10 years 11-15 years Over15 years

PART 2: ORGANIZATIONAL CULTURE

2.1. CLAN CULTURE

Please indicate (√) your level of concurrence or disagreement with each of the following statements on a scale of 1 to 5 (1- for strongly disagree, 2 - for disagree, 3 - for neutral, 4 - for agree and 5 - for strongly agree) on the way clan culture (concerned with human relations) in your company promotes organizational performance.

	Statement	1 SD	2 D	3 N	4 A	5 SA
i.	The management approach in your company is exemplified by teamwork.					
ii.	The glue that binds your company together is mutual trust.					
iii.	Your company emphasizes human resource development as one of the success factors.					

iv.	Your company is an individual place like an extended family.					
v.	The leadership in your organization exemplifies mentoring and nurturing characteristics.					
vi.	Great importance is given to commitment in your organization.					
vii.	Your organization defines achievement on the foundation of concern for employees.					

viii. In your opinion, how can clan culture values be entrenched in your organization?

.....
.....
.....

ix. In your opinion, does clan culture improve performance in your organization?

.....
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.....

2.2. ADHOCRACY CULTURE

Please indicate (√) your level of concurrence or disagreement with each of the following statements on a scale of 1 to 5 (1- for strongly disagree, 2 - for disagree, 3 - for neutral, 4 - for agree and 5 - for strongly agree) on the way adhocracy culture (that emphasizes new product and service development, growth and change) in your company to promotes organizational performance.

	Statement	1 SD	2 D	3 N	4 A	5 SA
i.	The management of employees in your organization is characterized by promotion of individual initiative.					
ii.	Operations in your organization are exemplified by entrepreneurship spirit.					
iii.	One of the strategic priorities in your organization is acquirement of latest resources.					
iv.	The glue that binds your company together is obligation to originality and improvement.					
v.	In your organization, originality and search for opportunities are valued.					
vi.	Your company stresses that expansion and promptness to encounter any forthcoming challenges are vital.					
vii.	In your organization, there is commitment to creation of new ways of providing services to customers.					

viii. In your opinion, how can adhocracy culture values be entrenched in your organization?

.....

ix. In your opinion, does adhocracy culture improve performance in your organization?

.....

2.3 MARKET CULTURE

Please indicate (√) your level of concurrence or disagreement with each of the following statements on a scale of 1 to 5 (1- for strongly disagree, 2 - for disagree, 3 - for neutral, 4 - for agree and 5 - for strongly agree) on the way market culture in your company promotes organizational performance. The core values this culture are goal achievement, customer focus, and productivity.

	Statement	1 SD	2 D	3 N	4 A	5 SA
i.	The glue that binds your company together is stress on goal achievement.					
ii.	Management of employees in your company is exemplified by encouragement of competitive spirit.					
iii.	Management in your company is illustrated by having results-oriented focus.					
iv.	Your organization defines achievement on the foundation of increasing the number of customers.					
v.	Managers and subordinates jointly set goals that are ambitious but realistic.					
vi.	In your organizations, measurement of targets and objectives is undertaken on regular basis.					
vii.	Management style in your organization is characterized by goal achievement.					

viii. In your opinion, how can market culture values be entrenched in your organization?

.....

ix. In your opinion, does market culture improve performance in your organization?

2.4 HIERARCHY CULTURE

Please indicate (√) your level of concurrence or disagreement with each of the following statements on a scale of 1 to 5 (1- for strongly disagree, 2 - for disagree, 3 - for neutral, 4 - for agree and 5 - for strongly agree) on the way hierarchy culture in your company promotes organizational performance. Formalized and structured places along with rules and procedures/policies and well-defined processes are regularly viewed as the major features of hierarchy type of culture.

	Statement	1 SD	2 D	3 N	4 A	5 SA
i.	The glue that binds your company together is prescribed regulations.					
ii.	Management style in your company is exemplified by security of tenure.					
iii.	Your organization defines achievement on the foundation of efficient service delivery.					
iv.	Teamwork in your company is depicted by operational competence.					
v.	The management approach in your company is illustrated by careful monitoring of performance.					
vi.	The values shared by staff in your organization are respect for and compliance with policies.					
vii.	An organization will perform well if there is consistency between the values of its employees and the organization.					

viii. In your opinion, how can hierarchy culture be entrenched in your organization?

ix. In your opinion, does hierarchy culture improve performance in your organization?

PART 3: LEADERSHIP VALUES

Herein below are descriptions of various supervisors in organization. Please study each explanation and indicate how much each supervisor being described is or is not like your supervisor by putting a tick (√) in the box to the right on a scale of 1 to 5.

	How much like your supervisor is the person described below?	1 Not like my supervisor at all	2 Not like my supervisor	3 Somewhat like my supervisor	4 Like my supervisor	5 Very much like my supervisor
i.	Originating new ideas and being innovative is essential to him/her.					
ii.	It is significant for him/her to come up his/her own ideas about what he/she wants to do.					
iii.	He/she takes pride in being inquisitive and trying to comprehend all sorts of issues about work.					
iv.	He/she often wants to be independent and not to rely on any other person.					
v.	He/she always wants to be in charge and instruct employees to do what he/she wants.					
vi.	He/she wants at all times to be the one making decisions.					
vii.	He/she believes that employees should always follow regulations even when nobody is around them.					
viii.	He/she thinks it is essential to undertake plenty of different job assignments.					

ix.	He/she is fond of taking risks and looking for exciting activities at all times.					
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x. Would you attribute performance of your organization to only leadership values? Please explain.

.....

PART 4: ORGANIZATIONAL PERFORMANCE

Herein below are some of the non-financial indicators of organizational performance. Please indicate your company’s performance against the indicators in the last 4 years on a scale of 1 to 5 (1 - very poor, 2 - poor, 3 - fair, 4 - good and 5 - excellent).

	Performance Indicator	1 Very Poor	2 Poor	3 Fair	4 Good	5 Excellent
i.	Employee satisfaction					
ii.	Customer satisfaction					
iii.	Participation in corporate social responsibilities					
iv.	Water coverage					
v.	Hours of water supply					
vi.	Drinking water quality					
vii.	Reduction in non-revenue water					
viii.	Revenue collection efficiency					

.....

END

THANK YOU FOR PARTICIPATION

PART 4: SECONDARY DATA ON ORGANIZATIONAL PERFORMANCE
(To be collected from company records)

	Performance Indicator	2013/14	2014/15	2015/16	2016/17
i.	Employee satisfaction level (%)				
ii.	Customer satisfaction level (%)				
iii.	Participation in corporate social responsibilities every year (yes/no)				
iv.	Water coverage (%)				
v.	Hours of water supply per day				
vi.	Drinking water quality (%)				
vii.	Reduction in non-revenue water (%)				
viii.	Revenue collection efficiency (%)				

APPENDIX III: LIST OF PUBLIC WATER COMPANIES IN KENYA

1. Amatsi Water Services Company Ltd.
2. Bomet and Sanitation Company Ltd.
3. Eldama Ravine Water and Sewerage Company Ltd.
4. Eldoret Water and Sewerage Company Ltd.
5. Embe Water and Sanitation Company Ltd.
6. Embu Water and Sanitation Company Ltd.
7. Engineer Town Water Project
8. Garissa Water and Sewerage Company Ltd.
9. Gatamathi Water and Sanitation Company Ltd.
10. Gatanga Community Water Trust
11. Gatundu Water and Sanitation Company Ltd.
12. Githunguri Water and Sanitation Company Ltd.
13. Gusii Water and Sanitation Company Ltd.
14. Imetha Water and Sanitation Company Ltd.
15. Isiolo Water and Sewerage Company Ltd.
16. Iten Tambach Water and Sewerage Company Ltd.
17. Kahuti Water and Sanitation Company Ltd.
18. Kakamega Busia Water and Sewerage Company Ltd.
19. Kapenguria Water and Sewerage Company Ltd.
20. Kapsabet Nandi Water and Sanitation Company Ltd.
21. Karimenu Water and Sanitation Company Ltd.
22. Karuri Water and Sanitation Company Ltd.
23. Kericho Water and Sanitation Company Ltd.
24. Kiambere Mwingi Water and Sanitation Company Ltd.
25. Kiambu Water and Sewerage Company Ltd.
26. Kibwezi Makindu Water and Sewerage Company Ltd.
27. Kikanamku Water Association
28. Kikuyu Water and Sewerage Company Ltd.
29. Kilifi Mariakani Water and Sewerage Company Ltd.
30. Kirinyaga Water and Sewerage Company Ltd.
31. Kisumu Water and Sewerage Company Ltd.
32. Kitui Water and Sanitation Company Ltd.
33. Kwale Water and Sewerage Company Ltd.
34. Kyeni Water and Sewerage Company Ltd.
35. Lamu Water and Sewerage Company Ltd.
36. Limuru Water and Sewerage Company Ltd.
37. Lodwar Water and Sanitation Company Ltd.
38. Machakos Water and Sewerage Company Ltd.
39. Malindi Water and Sewerage Company Ltd.
40. Maralal Water and Sanitation Company Ltd.
41. Mathira Water and Sanitation Company Ltd.
42. Matungulu Kangundo Water and Sanitation Company Ltd.

43. Mavoko Water and Sewerage Company Ltd.
44. Mbooni Water and Sewerage Company Ltd.
45. Meru Water and Sewerage Company Ltd.
46. Mikutra Water and Sanitation Company Ltd.
47. Mombasa Water Supply and Sanitation Services Company Ltd.
48. Moyale Water and Sanitation Company Ltd.
49. Murang'a South Water and Sanitation Company Ltd.
50. Murang'a Water and Sewerage Company Ltd.
51. Murugi Mugumango Water Society
52. Muthambi 4k Water Association
53. Nairobi Water and Sewerage Company Ltd.
54. Naivasha Water and Sewerage Company Ltd.
55. Nakuru Rural Water and Sewerage Company Ltd.
56. Nakuru Water and Sewerage Company Ltd.
57. Namanga Community Water Company Ltd.
58. Nanyuki Water and Sewerage Company Ltd.
59. Narok Water and Sewerage Company Ltd.
60. Ndaragwa Water Project
61. Ngagaka Water Consumers Association
62. Ngandori Nginda Water Consumers Association
63. Nithi Water and Sewerage Company Ltd.
64. Nolituresh Loitoktok Water and Sewerage Company Ltd.
65. Nyahururu Water and Sanitation Company Ltd.
66. Nyakanja Water Service Providers Society
67. Nyandarua Water Scheme
68. Nyeri Water and Sewerage Company Ltd.
69. Nzoia Water Services Company Ltd.
70. Olkalou Water Company Ltd.
71. Olkejuado Water and Sewerage Company Ltd.
72. Oololaiser Water and Sewerage Company Ltd.
73. Othaya Mukurweni Water Services Company Ltd.
74. Ruiru Juja Water and Sewerage Company Ltd.
75. Rukanga Water and Sanitation Company Ltd.
76. Siboi Water and Sanitation Company Ltd.
77. Tachasis Water Supply
78. Tavevo Water and Sewerage Company Ltd.
79. Tetu Water and Sewerage Company Ltd
80. Thika Water and Sewerage Company Ltd.
81. Tililbei Water and Sanitation Company Ltd.
82. Tuuru Water Scheme
83. Wote Water and Sewerage Company Ltd.
84. Yatta Water and Sanitation Company Ltd.

Source: <http://wasreb.go.ke/impact-reports>