

**ORGANIZATIONAL RESOURCES, CORPORATE GOVERNANCE AND  
PERFORMANCE OF REGIONAL DEVELOPMENT AUTHORITIES IN KENYA**

**Ezekiel Wechuli Wanyama**

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of Doctor of Philosophy in Business Administration (Strategic Management Option) of  
Masinde Muliro University of Science and Technology.

**January, 2021**

## DECLARATION

This thesis is my original work prepared with no other than the indicated sources and support and has not been presented elsewhere for a degree or any other award.

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Ezekiel Wechuli Wanyama

Reg No: PBA/H/01-57639/2016

## CERTIFICATION

We the undersigned certify that we have read and hereby recommend for acceptance of Masinde Muliro University of Science and Technology a thesis entitled, “Organizational resources, corporate governance and performance of regional development authorities in Kenya.

Prof John K. Byaruhanga

School of Business and Economics

Masinde Muliro University of Science and Technology

Signed..... Date.....

Dr. Shitseswa E. Ayub

School of Business and Economics

Masinde Muliro University of Science and Technology

Signed..... Date.....

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## **DEDICATION**

The thesis is dedicated to Tom Brown Wanyama. Your passion for education and insistence to all of us as your children for the need to stick within academia inspired me to this level.

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## ABSTRACT

Regional development authorities play an important role in the Kenyan economy and government development strategic plan, the Kenya Vision 2030. The RDAs have a big potential in attracting investments to achieve sustainability and complement the government's efforts in wealth and employment creation. However, a number of management challenges inhibiting RDAs from achieving its objectives. For instance, a protracted and winding plan preparation process brought about by limited planning skills, capacity and financial resources have affected effective plans formulation and implementation. The process has also operated without linkages to key planning institutions and without effective implementation frameworks. This has resulted to over dependency on the exchequer for their recurrent and capital requirements, dilution of the mandate of RDAs and diversion of funds to other institutions for activities meant to be implemented by RDAs; weak institutional support, poor governance, lack of autonomy, unclear policies on ownership of assets and absence of regional development policy. Therefore, the purpose of this study was to determine the influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. The specific objectives were to establish the influence of technological resources on performance, determine the influence of financial resources on the performance, establish the influence of human resources on the performance and establish the moderating effect of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. The study was guided by resource based theory, dynamic capabilities theory, stewardship theory and contingency theory. The study adopted explanatory research design. The study was conducted in six regional development authorities that cover 47 counties. This includes Kerio Valley Development Authority, Ewaso Ngiro South, Ewaso Ngiro North, Coast Development Authority, Lake Basin Development Authority, Tana and Athi Rivers Development Authority. The targeted population was 169 comprising of chief managers, managers, heads of department and chief accountant. The study used stratified random sampling to select 118. Primary data was collected using structured questionnaires and interview schedules. Pilot study was conducted to test validity and reliability of research instruments. The researcher used descriptive statistics and inferential statistics. The findings revealed that organizational resources significantly accounted for 42.3% variation in performance of regional development authorities in Kenya ( $R^2=0.423$ ,  $P=0.000$ ). Specifically, when technological resources changes by a unit, performance changes by 0.375 units ( $\beta_1=0.375$ ,  $P=0.000$ ); when financial resources changes by a unit, performance changes by 0.236 units ( $\beta_2=0.236$ ,  $P=0.011$ ); when human resources changes by a unit, performance changes by 0.418 units ( $\beta_3=0.418$ ,  $P=0.000$ ). Corporate governance has significant moderating influence on the relationship between organizational resources and performance as indicated by change in  $R^2=0.109$ ,  $p=0.000$  implying that the interaction of organizational resources and corporate governance explained up to 10.9% change in performance of regional development authority. The study concluded that organizational resources influence performance. The study further concluded that corporate governance significantly increases the influence of organizational resource on performance of regional development authorities. The study recommended that regional development authorities ought to reduce overdependence on exchequer to resources but generate their own financial resources and link with other organizations for transfer as well as upscale for technological and human resources. The study also recommended that board should be diverse in terms of gender, relevant industry experience and independent board member from the management.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

CBA-	Coastal Development Authority
CGAP-	Consultative Group to Assist the Poor
ENNDA-	Ewaso Ngiro North Development Authority
ENSDA-	Ewaso Ngiro South Development Authority
FINCA-	Foundation for International Community Assistance
GDP-	Gross Domestic Product
KeNHA-	Kenya National Highway Authority
KVDA	Kerio Valley Development Authority
LBDA-	Lake Basin Development Authority
MSME-	Micro Small and Medium Enterprises
NACOSTI-	National Commission for Science, Technology and Innovation
RDAs-	Regional Development Authorities
SME-	Small and Medium Enterprises
SPSS-	Statistical Package for Social Scientist
TARDA-	Tana and Athi River Development Authority
VRIN-	Valuability, Rareness, Inimitability And Non-Substitutability
ZTBL-	Zarai Taraqiyati Bank Limited

## OPERATIONAL DEFINITIONS OF TERMS

**Organizational Resources:** standards, practices and management routines which coordinate financial, human and technological resources within the RDAs.

**Technological Resources:** are systems and tools required to effectively produce or create a product or service in the RDAs. These include energy, information, people, tools, machines, capital and time. The study focused on appropriateness, infrastructure, innovation and utilization.

**Financial Resources:** This is fund available for spending by the RDAs. It includes cash, liquid securities and credit lines. The study focused on their allocation, sources and disbursement.

**Human Resources:** These are employees or workforce in the RDA and they are regarded as a significant asset in terms of skills, knowledge, competence, experience and abilities.

**Corporate Governance:** defines the methods, structure and processes of a Company in which the business and affairs are managed and directed. It also enhances the long term shareholder value by the process of accountability of managers and enhances the firm's performance.

**Performance:** comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). In this study, it includes effective and efficient execution of projects against allocated resources.

**Regional Development Authority:** Refers to six nationalized corporations' publicity owned by the State and is a legal entity created by a government to undertake its activities with a view to develop and grow its economy. The mandate of these agencies was to map the

resources in the area for proper planning and coordination of their use and finally to empower and support communities in the various areas of jurisdiction. The areas of jurisdiction covered by the RDAs were developed based on the river basin boundaries in the country.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

The states of performance of state owned corporation comprise a noteworthy research subject in strategic management which has been experiencing a significant shift from 1990s to date (Ho and Teo, 2015). A company is considered to appreciate better performance than rivals when it puts into execution a strategy which is has value creation and subsequently, the creation of performance superiority process is in tandem with the theory of Resource Based View (Eriksson, 2013). The Resource Based View viewpoint puts accentuation on organization specific capabilities and resources as basic competitive advantage sources which lead to superior performance (David & David, 2016).

As per the theory of Resource Based View, performance outcome from competitive advantage emanates from the ownership of unmistakable capability and resources that must satisfy the states of “valuability, rareness, inimitability and non-substitutability (VRIN)”. Resources which are valuable intensify organization performance improvement. Rareness makes ideal competition due to the fact that fewer firms are in possession of resources. Resources which are inimitable are expensive to duplicate and non-substitutable, implying that there is no choice to fullfil a similar function promptly (Knott, 2015). David and David (2016) reasoned that resources fulfilling all the above criteria are acknowledged to be unique and they are the tools that empower an organization to increase better than expected profit and retention of leadership in the market.

Lee (2009) indicated that public organizations in United States are using a variety of resources in managing their organizations, pursuing their organizational goals, and

implementing their policies or programs. A variety of resources show relatively different impacts on federal agencies effectiveness: some resources have positive and significant influences on federal effectiveness and others have negative or insignificant relationships with federal agency performance. Resources such as human resources, presidential attention, and agency's public reputation have positive and significant relationships with agency effectiveness, as expected. Therefore, trying to have more of these resources can be an effective strategy for producing better performance.

In Japan, organizations tend to be more resource constrained in terms of tangible and slack resources and as such, intangible resources take on greater strategic significance. Organizations, therefore, in possession of intangible resources in a quantity or quality above that of their peers should enjoy a superior competitive position (Anderson & Eshima, 2013). Nel et al. (2015) showed that human resource is the most important resource which has the strongest effects on business performance in Australia. Thus, companies those want to improve their performance need to concentrate on improving their human resource as the first priority and then IT infrastructure as the second priority.

Othman, Arshad, Aris and Arif (2015) asserted that resources are considered essential for organizations as it can help to develop capabilities that are urgently needed to adapt to their external environment and in turn facilitate organizations to enjoy continuous growth in Malaysia. Aloise and Macke (2017) indicated that organizational resources do effectively impact innovation stages at local mid-sized companies in Brazil, particularly in as much as some features are concerned, namely: production process improvement, production performance monitoring, customer orientation and financial management practices.

In Nigeria, Aliyu, Jamil and Mohamed (2014) evaluated the performance of different organizational resources like human, physical, and financial and also the organization as a whole. Several cases of performance inefficiencies, deterioration in performance or total liquidation of various organizations in Nigeria, have been levied against resource management and corporate governance. Specifically for the financial sector poor managerial performance and poor CG had been identified as the major culprits in virtually all known cases of a financial institution's distress in the Nigeria. Ghanaian companies, heavily invest technological resources toward enhancing the productivity of their workers by providing access to various technology applications. Unfortunately, as numerous managers have discovered in the past, mere investment in these systems does not guarantee enhanced productivity of the user base (Tuzie, 2012). Bekele (2015) indicated that organizational resources may also be an obstacle to effective planning in Organizational Performance in Sululta Town Administration in Ethiopia. Various aspects of planning in human resources and finance affect performance.

Sebastian (2018) indicated that firms operate using several resources including financial, human, capital and others. Financial resource is one of the key elements in achieving organizational objectives and goals. The study found that more formalized organizational resources leads to higher sales revenues. However, its impact on the growth of profit becomes very weak and the formal organizational resource planning, in contrast, strongly affects the growth of profit in manufacturing firms in Tanzania. In the case of Uganda and more especially Stanbic Bank Uganda Limited (SBUL), the idea of accountability, transparent and board composition are practiced as a way of effectively managing resource utilization in relation to set financial internal controls. Kimaite (2016) revealed that performance is driven, in part, by organization resources such as human resources and

financial resources. Therefore, corporate governance plays a pivotal role in the enhancement of bank performance.

In Kenya, the performance of state corporations particularly RDAs have a big potential in attracting investments to achieve sustainability and complement the government's efforts in wealth and employment creation (Kutto, 2016). However, a number of constraints inhibit RDAs from achieving its objectives. Some of these constraints include dependency on the exchequer for their recurrent and capital requirements, inability to attract investments, dilution of the mandate of RDAs and diversion of funds to other institutions for activities meant to be implemented by RDAs; inadequate development funding; poor salaries to staff; weak institutional support, poor governance, lack of autonomy, unclear policies on ownership of assets and absence of regional development policy (Ongeto, 2014).

Ongeti (2014) indicated that the relationship between organization resources and performance is moderately weak. This comes at the backdrop of poor performance in the public sector including state corporations, especially in the management of public resources which has hindered the realization of sustainable development goals and vision 2030.

Mwai, Namada & Katuse (2018) indicated that organizational resources were found to positively and significantly influence the achievement of organizational effectiveness of NGOs in Kenya. A unique finding was that staff empowerment leads to a negative influence on efficiency; this may be rectified using affirmative policies and great effort, but will not always lead to the best possible efficiency of organizational resources.

Gakenia (2015) indicated that human resources had a positive significant effect on performance of mobile phone companies in Kenya. Technology was found to be

significant in explaining the variation of performance of mobile phone companies. Environmental factor had a moderating effect on the influence of organizational resources on performance.

Broadly construed, resources are any assets that an organization might draw on to help it achieve its goals. Worlu et al (2016) classify resources as physical assets and technologies, human resources and organizational capabilities, and the intangible resources of reputation and political acumen. According to Bryson (2018), organizational resources are divided into financial, human, and technological resources. In this study, I offer three types of organizational resources: technological, financial resources and human resources.

Organization must have distinctive technological resources to face the dynamism of today's knowledgeable society Okanga & Groenewald (2017). Technological resources increasingly encourage absorptive capacity in firms to enable organizations to achieve higher objectives by themselves through organizational learning processes thus increase organizational performance García-Morales, Bolívar-Ramos & Martín-Rojas (2014). The disparity between technological progression and consumer demand means that technology does not have an impact on superior performance of a firm.

Lee, Choi, Lee, Min and Lee (2016) indicated that investment in technological resources directly contributed to higher performance of a firm. However, Lee et al. (2016) only analysed a direct relationship between technology and performance without taking into account any moderation, which is a gap that the current study attempted to fill by moderating the relationship with organization performance while maintaining technological resources as an independent variable. Liang, You and Liu (2010) examined whether technological resources have significant effect on firm performance. It was found that the mediated model that includes organizational capabilities as mediators between

organizational resources and firm performance can better explain the value of technological resources than the direct-effect model without organizational capabilities. The limitation of meta-analysis is that findings are based on prior research conducted on different sources at different times. This may cause observation biases.

Financial resources are one of the critical resources which affect the ability of an organization to execute given tasks. According to Nkosi (2015) financial resources can be a limiting factor and the way which it is obtained may make it easier or harder to further resources in the future. A number of studies support the need of adequate financial resources in strategy implementation. However, organizations face quite some challenges in accessing the needed financial resources De la Torre, Gozzi & Schumukler (2017). Ahamed (2015) showed that human resources, financial resources, information systems and organizational structure displayed statistically significant positive correlation with strategy implementation. Financial resources had a weak positive correlation with strategy implementation. The study concentrated on financial resources and strategy implementation, hence there is need to investigate influence of financial resource on organization performance.

Njagi, Muathe and Muchemi (2018) established that there was a positive and a statistically significant effect of financial and physical resources on the performance of public health institutions in Embu County, Kenya. However, in their study, these resources are usually treated as environmental factors or constraints rather than the main variables of interest. The study also did not focus on the relative influence of different resources on organizational performance. Sulaiman (2016) demonstrated that Chief Financial Officer Experience and the financial resource dimensions do not significantly influence firm performance. This contradicts previous numerous studies that have established that

financial resources influences organization performance. Nganga, Wangithi and Njeru (2016) found that resources were critical to a firm's performance. Financial resources were not necessarily influential since the availability of the resources could not guarantee performance unless properly utilized.

Forms of human resource include skills, ability, experience and knowledge established among workers of the firm. Tactical knowledge gained by an organization can't be effortlessly copied by competitors, since it is embedded in the human experience and skills of an organization which prompts profitability (Njoroge, Muathe & Bula, 2015). Resource Based View of the organization expresses that all resources held by an organization does not results to superiority in performance but rather just specific types that are owned and controlled by the organization (Kabue & Kilika, 2016). Despite the fact that the examinations were analysed utilizing multiple regression which was embraced for the present investigation, the examinations utilized RBV proposition just, which was utilized in the present examination together with dynamic capability theory.

Human resource of high quality coupled with high ability affects individual job performance positively and significantly in Ireland (Prieto & Pérez-Santana, 2014). Therefore, human resource must be heterogeneous in terms of skills, knowledge and experiences as far as type and level is concerned. Nevertheless, this study verified relationship that exists directly between dependent and independent variables, while the present investigation tried for circuitous relationship by presenting a moderating variable. As per Mayo (2016), if an organization aspires to maintain its competitive advantage, at that point it must comprehend the segments of the human capital asset that can add to better than expected profitability. The examination asserted that human capital must be estimated through cognitive ability, competences, skills, experience and knowledge. This

is conversely with Meyers and Van Woerkom (2014) who shows that human capital is estimated via other indicators such as talent management, reward and compensation practices of an organization.

From the foregoing studies, it is evident that there is nexus between organizational resources and organizational performance, not only in local context but also regional and global context. The importance of organizational resources is underscored by Othman et al. (2015) and Anderson & Eshima (2013) although there is marked difference on the type of resources and their contribution to performance. However, some studies have inertly advocated for a moderating or mediating variables since organization resources on their own do not results to maximum organization performance. Kimaite (2016) revealed that performance is driven, in part, by organization resources such as human resources and financial resources. This was also asserted by Tuzie (2012) who indicated that mere investment in these resources does not guarantee enhanced productivity. Mahasi (2016) established the existence of a moderately strong relationship between organisational resources and performance. The study established that physical and financial resources were key attributes of the performance. Hence resources should be considered in totality. However, it was recommended that future studies should incorporate corporate governance.

The use of corporate governance in relation to organization resources and performance has continued to get adequate recommendation although few of the previous studies have included it. In Tanzania, Sebastian (2018) revealed that informal organizational resources lead to weak profits. Aliyu et al (2014) indicated that deterioration in performance is related with resource management and corporate governance in Nigeria. Mwai et al (2018) indicated that empowerment of human resources lead to a negative influence on efficiency

however; this can be rectified using affirmative policies and great effort. Mahasi (2016) established the existence of a moderately strong relationship between organisational resources and performance. The study established that physical and financial resources were key attributes of the performance. Hence resources should be considered in totality. However, it was recommended that future studies should incorporate corporate governance. Ongeti (2014) revealed that organizational resources influenced performance of state-owned corporation was moderately weak. This implies that there could be other factors that influence performance other than organizational resources and performance and therefore, recommended introduction of corporate governance practices as moderating variables.

Corporate Governance can be conceptualized as a set of processes, customs, policies, laws and institutions affecting the way a corporation is directed, administered or controlled, and its purpose is to influence directly or indirectly the behaviour of the organization towards its stakeholders (Aguilera, Desender, Bednar and Lee, 2015). Hence, corporate governance can be said to be a system that gives corporations direction and control. Corporate governance can be viewed as comprising measures that are taken socially to encourage the actors in the economy to participate in the production process, so as to create surplus for the organization, and to bring about a distribution that is fair amongst the partners, with the consideration of what they have brought to the organization (Olumbe, 2012).

Corporate governance has also been successfully used as moderating variable on the performance. Muturi, Mwau and Oloko (2017) indicated that moderating effect of the ownership structure have a positive effect on the performance of firms in insurance industry in Kenya. Earnest and Sofian (2013) also proved that corporate governance poses a moderating role between intellectual capability and corporate performance by linking the

resource based view theory (RBV) and agency theory in its relationship. On the other, numerous studies have been conducted empirically to investigate direct relationship between corporate governance and organizational performance. Recent findings in studies on the relationship between corporate governance and firm performance for firms in different parts of the world are inconclusive or even contradictory. Love and Rachinsky, (2015) in their study on Indian firms established that there is a negative relationship between corporate governance and firm performance. Manini and Abdillahi (2015) found out that audit committee size, board gender diversity and bank capital have no significant effect on bank profitability, and that board size negatively influences organizational performance. Muriuki, Cheruiyot and Komen (2017) indicated that board structure was positively correlated to organizational performance of state owned corporations in Kenya. Wathanga (2017) asserted that corporate governance has positive effect on the organizational performance of State owned Dairy cooperative. Similar results were obtained by Ongore, Peter, Ogutu and Bosire (2015) who disclosed that there is a positive relationship between performance and board size and board compositions of all state corporations in Kenya.

These contradictions in findings create aspersions as to whether corporate governance impacts performance of State owned corporations in Kenya. However, the mixed outcome on the relationship between organizational resources and performance also makes it difficult to understand the nexus between organizational resources and performance. The lack of homogeneity in the results of previous studies suggests that the relationships between organizational resource and corporate performance are complex and very probably moderated or mediated by factors. With poor performance of state owned corporations such as RDA, it is research imperative to understand the relationship between these three variables. The impetus of this study is borne out of existing studies which have

provided evidence that introduction of moderating variables, has resulted to establish a definite relationship between organizational resources and performance. Further, corporate governance has been successfully used as a moderating variable on the organization performance. Therefore, the purpose of this study was to investigate influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya.

### **1.1.1 Overview of Regional Development Authorities in Kenya**

The GoK established 6 Regional Development Authorities (RDAs) through various Acts of Parliament. The areas of jurisdiction covered by the RDAs were developed based on the river basin boundaries in the country. They include: Kerio Valley Development Authority (KVDA) established under Cap 441 of 1979, Lake Basin Development Authority (LBDA) under Cap 442 of 1979, Ewaso Nyiro South Development Authority (ENSDA) under Cap 447 of 1989, Ewaso Nyiro North Development Authority (ENNDA) under Cap 448 of 1989, Tana and Athi Rivers Development Authority (TARDA) under Cap 443 of 1974, and Coast Development Authority (CDA) under Cap 449 of 1990 (Tipis & Njoroge, 2019).

The mandate of these agencies was to map the resources in the area for proper planning and coordination of their use, integrated basin based development, protection of river basins, water bodies and catchments and finally to empower and support communities in the various areas of jurisdiction. The RDAs were very instrumental in ensuring rapid economic growth after their inception contributing to the country's GDP growth. However, challenges emerged such as limited funding that raised questions on the sustainability of the RDAs. With limited resources in not been left out. There is need for

them to optimize the resources allocated to them and this means that they must have sound corporate governance practices in place (Kutto, 2016).

Three regional authorities-Coast, Ewaso Ngiro and Kerio Valley-have Sh57 billion stalled projects (GoK, 2019). The Auditor-General, in a report tabled in Parliament in October last year, questioned the delay in completing four irrigation projects initiated by Kerio Valley Development Authority. Aror irrigation scheme and Tot irrigation project. After more than Sh300 billion set aside by government for water projects across the country, there is little to show on the ground as project delays, financing hitches and lethargy of contractors derail the dream. It emerged that the Sh38 billion Itare Dam, a project under Rift Valley Water Services Board (RVWSB) was in doldrums. The stalled project that was about forty percent complete has been pending for the last four months raising fears of it going into the same books of Umaa dam in Kitui and Badassa in Marsabit which have turned derelicts even after billions were sunk.

Badassa dam had consumed Sh2 billion by the time it stalled nine years ago. Before it kicked off, Itare Dam project had been caught up in political lethargy. Just like the Itare's case, implementation of the Sh6.8 billion Northern Water Collector Tunnel project was shaken to the core by the national politics with allegations of desertification downstream also emerging. High Grand Fall dam, a grandiose project is one of such. Conceived in 2012, the Sh150 billion project promised to boost irrigation farming in Galana Kulalu irrigation scheme in Tana River County and similar projects in Kitui and Tharaka Nithi is yet to pick up.

LBDA used to be one of the authorities with great agriculture projects. It was famed for its mechanized agriculture in villages to boost food security. Most of these village projects collapsed or are performing poorly. One of such white elephant is the Sh6 billion Oluch

Kimira irrigation project in Karachuonyo sub-county that was abandoned despite its food production potential. The Auditor General Report (2017) indicated that Coast Development authority has a lot of projects amounting to over half a billion which have stalled for over five years. This has denied the community to utilize and the sustainability of the said projects

## **1.2 Statement of the Research Problem**

Government from the year 2009 unveiled major development projects worth Sh250 billion to stimulate a faltering economy and create over a million jobs through multi-purpose projects through the six Regional Development Authorities in various parts of the country. These projects covered areas of irrigation of food and cash crops, hydro power generation, and supply of clean water, development of fisheries, water catchments conservation, and creation of local employment and rural development. The projects were expected to directly create 213,000 jobs and another 956,000 indirect jobs. However, over half of the projects have been stalled while some of them have not started (Kutto, 2016). Therefore, delays in completions have resulted in increase in food insecurity, unemployment and low economic growth.

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about forty percent complete has been pending for the last four months raising fears of it going into the same books of Umaa dam in Kitui and Badassa in Marsabit which have turned derelicts even after billions were sunk.

The Kenyan government acknowledges that over the years there has been poor performance in the public sector including RDA, especially in the management of public resources which has hindered the realization of sustainable economic growth (Brown, 2018). This is why performance of these RDA has been of great concern to many stakeholders including management practitioners, government and the public at large. This is partly due to dwindling resource base and growing need for public services (GoK, 2013). Therefore organizational resources moderated by corporate governance could be a recipe for better performance.

There have been a number of studies on organizational resources on organizational performance although with mixed outcome. Some studies indicating no significant influence (Lee, 2009), others negative (Mwai et al., 2018) and others positive influence (Ongeti, 2014). Kutto (2016) indicated that investment in technology directly contributed to higher performance of a firm. However, the study take into account any moderation, which is a gap that needs to filled, Sulaiman (2016) established that financial resource do not significantly influence firm performance contradicting previous numerous studies living a gap, According to Njoroge, Muathe and Bula (2015), human capital resource can only be measured through knowledge, experience, skills, competencies and cognitive ability which contradicts Cooke, Saini and Wang (2014) who indicates that it measured through other indicators such as talent management, reward and compensation practices of an organization.

These contradictions in findings have created aspersions on the relationship between organization resources and performance. Existing studies have provided evidence that introduction of moderating variables, has resulted to establish a definite relationship between organizational resources and performance yet few studies have examined moderating influence of corporate governance. However, some studies have indicated negative moderating effect (Juma, 2014), non-significant (Love and Rachinsky, 2015) and positive moderating effect (Muturi et al., 2017) of corporate governance. This leaves a significant knowledge gaps on the relationship between organizational resources, corporate governance and organizational performance.

### **1.3 Research Objectives**

The broad objective of this study was to determine the influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya.

#### **1.3.1 The specific objectives were to:**

- i) Establish the influence of technological resources on performance of regional development authorities in Kenya.
- ii) Determine the influence of financial resources performance of regional development authorities in Kenya.
- iii) To establish the influence of human resources on the performance of regional development authorities in Kenya.
- iv) To establish the moderating effect of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya.

#### **1.4. Research Hypotheses**

- i) **H<sub>01</sub>**: Technological resources have no significant influence on the performance of regional development authorities in Kenya.
- ii) **H<sub>02</sub>**: Financial resources have no significant influence on the performance of regional development authorities in Kenya.
- iii) **H<sub>03</sub>**: Human resources have no significant influence on the performance of regional development authorities in Kenya.
- iv) **H<sub>04</sub>**: Corporate governance has no significant moderating effect on the relationship between organizational resources and performance of regional development authorities in Kenya.

#### **1.5 Significance of the Study**

This investigation had policy, practice and scholarly implication. To the researchers, the examination didn't just investigate the immediate connection between performance and organization resources yet the mediating purpose of corporate governance was also studied. The outcomes can be of incredible assistance to researchers and academician, for it is anticipated to enable them to expand general knowledge regarding the matter as far as how the variables ought to be connected and may give valuable reference to future examinations as a feature of their literature.

The discoveries can be of assistance to the RDAs management by furnishing them with information such as the influence of human resources training and how it impacts performance improvement of an organization. Furthermore, the discoveries may make the directors mindful of the significance of research, innovation as well as development in assistance in unique and new product development that are exceptionally competitive in the market and would in this manner led to improvement of the organization performance.

The managers may utilize this information to tackle consumer's concerns who need to utilize their services by making their services available and unique, subsequently performance improvement.

The findings of the study extended the frontiers of knowledge by generating valuable insights for strategic management practices. Therefore the results of this study were of interest to managers of regional development authorities that have employed implemented strategic management practices. Successful CEOs understand the need for a sound business strategy and invest significant organizational resources required for strategic management. The implication of the study was that managers were to enhance their strategic management practices especially organizational resources and corporate governance since they are vital to performance. The discoveries of the investigation can likewise be of incredible assistance to policy makers in policy formulation that are suitable to the business, policies that would prompt reasonable pricing, reasonable guidelines and rules to control the regional development authorities in Kenya.

### **1.6 The Scope of the Study**

The study focused on organizational resources, corporate governance and performance of regional development authorities in Kenya. The organizational resources variables included human resources, technological resources and financial resources which are independent variables. The dependent variable was organizational performance while corporate governance was the moderating variable. There are six RDAs in Kenya, include: Kerio Valley Development Authority (KVDA), Lake Basin Development Authority (LBDA), Ewaso Nyiro South Development Authority (ENSDA), Ewaso Nyiro North Development Authority (ENNDA), Tana and Athi Rivers Development Authority (TARDA) and Coast Development Authority (CDA. The study sampled 118 respondents

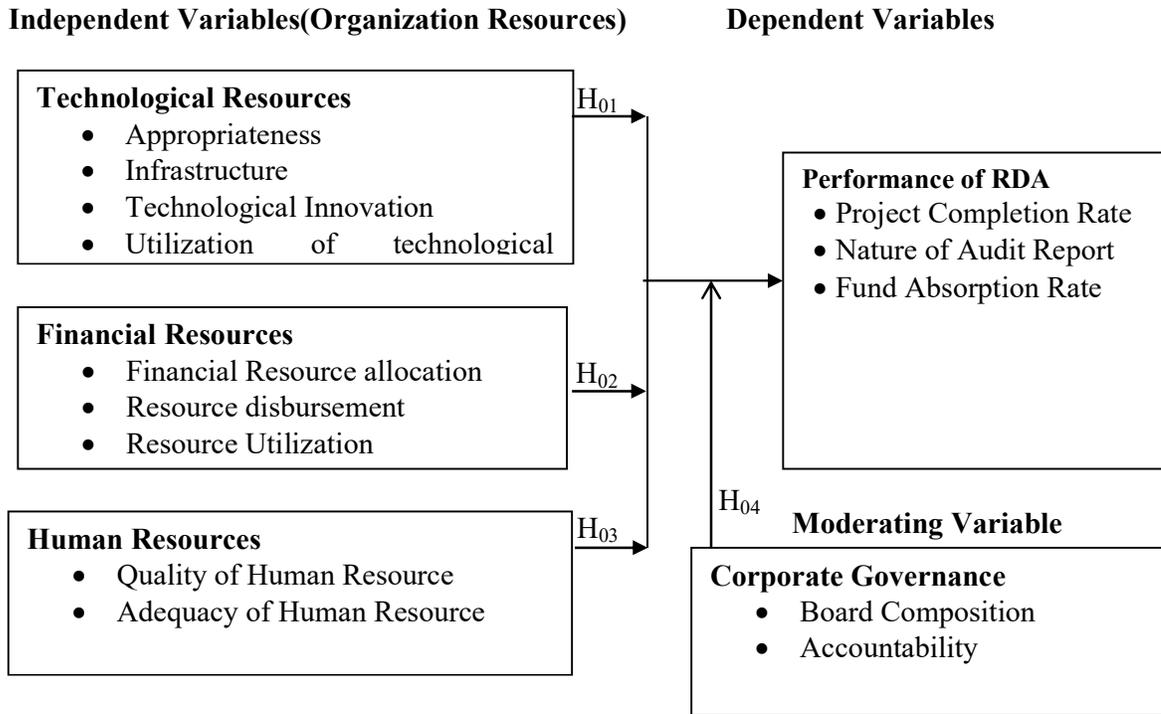
comprising of chief managers, managers, head of departments and chief accountant. The study was conducted in 2019.

### **1.7 Limitations of the Study**

Respondent's hesitation to disclose some information particularly on performance due to the confidentiality associated with the information. The researcher however, assured the respondents that the information would only be used for academic research only. To allay their fears, the researcher also produced an introductory letter from the University to confirm that the data requested was for academic reasons thus providing an assurance for confidentiality. Some of the respondents were busy with their schedule therefore interfered with data collection period. This was however overcome by use of drop and pick technique with constant reminder through phone calls.

### **1.8 Conceptual Framework**

A concept can be said to be an abstract or general idea inferred or derived from particular instances and unlike a theory a concept need not be discussed to be understood (Kombo & Tromp, 2009). A conceptual framework is a set of broad ideas and principles from relevant fields of inquiry and used to structure a subsequent presentation. It is a research tool intended to assist or help a researcher to develop awareness and understanding of the situation under study and to communicate it (Ngumi 2013). When clearly articulated a conceptual framework has potential usefulness as a tool to assist the researcher derive meaning of the findings. It forms part of the agenda for negotiations to be scrutinised, tested, reviewed and reformed. The conceptual frame work for this study shows the influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya as shown in Figure 1.1.



**Figure 1. 1: Conceptual Framework**

**Source: Author (2019)**

From Figure 1.1, organizational resources was used as independent variable under constructs such as technological resources, financial resources and human resources. The moderating variable was corporate governance which was measured using board composition and accountability. Lastly, dependent variable which is performance of regional development authority was conceptualized as project completion rate, nature of audit report, fund absorption rate, level of efficiency and effectiveness.

Technological resources in the RDA was further operationalized into sub constructs that was used to measure the latent variables as indicated in the questionnaire (See Appendix I). These constructs included appropriateness of technological resources at the RDAs. The aim was to establish, whether, technological resources are appropriate for significant contribution to RDA performance. Technological resources were also operationalized in

term of infrastructure. The study was keen to establish the adequacy of technological infrastructure in the Six RDAs as studies have indicated that adequacy influences performance. Another observed indicator that was used to measure technological resources in technological innovation. Holding technological resources is not adequate if there is no accompanying innovation to match. Lastly, the study also used utilization of technological resources in the RDA, the research was keen to find out if the technological resources are specifically used for RDA projects.

To determine financial resources, the study used three indicators which was used to construct questionnaire items. This included allocation of financial resources. For RDA to realize their performance objectives, they need to distribute various sources of financial resources which are predictable. RDAs with varied and predictable sources of finance will be able to complete their projects on time. However, since most of the RDA depends on the ex-chequer to fund their projects, disbursement of financial resources may have a profound effect on their performance. Allocation of financial resources is also vital for RDA performance. The study sought to establish if there is prioritization during budgetary allocations in the RDA. Another aspect of financial resources was utilization of funds allocated specifically to fund out if funds are utilized according to the intended purpose and budget.

The last independent variable, human resources were measured using quantity (adequacy) and quality of human resources. Quality of human resource included competence of human resources, talent management, skill and experience. Noteworthy the study was interested to find out if human resources are competent to carry out job assigned to them, there is effective talent management through proper allocation of roles and duties as well as the human resources at six RDA have appropriate skills and experience to enhance their

performance. On the hand, quantity of human resources entailed adequacy of human resources so as the execute mandate of the RDA effectively and efficiently.

Corporate governance in this study was operationalized into board composition and accountability. The board accountability was determined by reporting systems, auditing, performance contracts, financial and technical monitoring.

Performance of RDAs which is dependent variable was measured using indicators such as development project completion rates, nature of audit reports, fund absorption rate, level of efficiency and effectiveness.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

To enable a deeper understanding of the concepts under the study, it was necessary to carry out a review of literature. This chapter covered theoretical and empirical review of literature on organizational resources, corporate governance and performance. In what follows, the chapter explored theoretical underpinnings informing the study before undertaking a pairwise review of literature. The pairwise review was undertaken along key relationships between variables. In so doing, various research gaps were exposed along contextual, conceptual and methodological. These gaps were summarized and tabulated.

#### 2.2 Theoretical Literature

This study had three concepts. These are organizational resources, corporate governance and performance. All these concepts are anchored in several theories. The main theories are the Resource Based theory (RBT) (Wernerfelt, 1984), Dynamic Capabilities Theory (DCT) (Teece et al, 1997) and Stewardship theory which was developed by Donaldson and Davis in 1991 and advanced in 1993.

RBT and DCT are about possession and utilization of resources for better performance. These theories assume full discretion on access, utilization and disposal of resources for stellar performance. Corporate governance theories advocate for control, monitoring and oversight. Lack of oversight and monitoring may lead to a hold-up problem thus limiting resources available for use in organizations. On the other hand excessive oversight and monitoring may hinder managerial discretion. This may have a negative influence on performance. There is therefore a compelling need to jointly observe, empirically, the

arguments for the theories to arrive at a middle ground. The middle ground or trade off would lead to a balance between control, oversight, supervision of managers and discretion. Time is therefore rife for enhanced scholarly discourse both conceptually and empirically on the two theoretical postulations.

### **2.2.1 Resource Based Theory**

The resource based view of the firm is an influential theoretical framework for understanding how competitive advantage within firms through resources is achieved and how that advantage might be sustained over time (Gathungu & Baariu, 2018). The basic argument of this theory is that different types of resources possessed by a firm can have a significant influence on its performance. Variations in resources across firms will on the other hand, lead to differences in performance.

In evaluating the reasons behind the superior performance of organization, two alternative views exist side by side in strategic management discourse. These include the market based view of the firm, and the resource based view of the firm. The market based view of the firm is based on the structure-conduct-performance (SCP) paradigm of industrial organisation economics, and attributes above-normal returns to the structure of the market. In contrast, the resource- based view locates a firm's competitive advantage, and the resulting superior performance, to a set of rare, valuable, non-substitutable, and inimitable assets which the firm possesses (Bertozzi, Ali & Gul, 2016). Therefore, possession of unique resources is a source of superior performance.

The foundations of this theory originated from the works of Penrose (1959) and Chandler (1962). These early scholars postulated that organizational resources were the single most important source of organizational performance and competitive advantage. Since then there had been silence on the internal side of the organization, with most theoretical and

empirical work emphasizing on the external side of the organization. However, frustrations of scholars in the failure to support the link between industrial structure and the performance of a firm led to a relook at the internal side of the organization (Abdinassir, 2015).

Since the mid-1980s, the RBT has emerged as one of the substantial theories of strategic management (Pearce, Robinson, & Mital, 2012) even though others argue that it does not appear to meet the empirical content criterion for a theoretical system. This theory posits that firms can be conceptualized as bundles of resources.

That those resources are heterogeneously distributed across firms and that resource differences persist over time (Arora & Nandkumar, 2012). Using these assumptions, researchers have conceptualized that when firms have resources that are valuable, rare inimitable and non-substitutable (VRIN) they can achieve sustainable competitive advantage by implementing fresh value-creating strategies that cannot be easily duplicated by competing firms (Jang, 2013).

The other argument of this theory concerns resource slack in firms. Classic resource based conceptions stress the importance of resource slack as a river of growth rather than the total quality of resources possessed by the firm (Cyron & Zoellick, 2018). Slack is a dynamic quality that represents the difference between resources correctly possessed by the firm and the resource demands of the current business. Two firms can possess the same level of resources but differ in resource need of their current business (Mishina et al, 2014).

The difference in slack will lead to further growth since those with high slack will be endowed with ability to take advantage of the opportunities afforded by the environment (Mishina et al, 2014). Increased attention to firm's resources by researchers seems to be

beneficial in helping clarify the potential contribution of resources to organizational performance. The RBT's growing influence or swing of pendulum has provoked a significant debate on its strategy in the actual market. Some researchers report that the resources controlled by a firm generally enhance growth (Talaja, 2012).

The basic argument of RBV is that organization performance is determined by the resources it owns. An organization with more valuable scarce resources is more likely to generate sustainable competitive advantages. In a recent study, in strategic management, Susilo (2014) argued that RBV "has emerged as a key perspective guiding inquiry into the determinants of organizational performance".

Among them, the major theory that has been adopted to interpret the relationship between technology and organizational performance is the RBV. Talaja (2012) argues that organizational resource that can create advantage must have VRIN attributes which technological resources possess. In this view, technological resources are considered a valuable organizational resource that can enhance organizational capabilities and eventually lead to higher performance. Because not all resources are considered having value in RBV, the first issue facing technological resources is the selection of resource variables. Some studies only chose technology context such as technology investment, technology adoption, and technology infrastructure as resources. When RBV is applied to analyze the value of IT, these technological resources are usually considered to be a type of resources.

Resource based view theory entails the identification of unique resources in a firm and making a decision where these resources can be invested to earn the company the highest returns (Hitt, Carnes & Xu, 2016). The resource based view theory was used in this study to explain the importance of financial resources. Somsuk and Laosirihongthong (2014)

advanced for the use of the framework by stating that financial resources enable organizations to acquire other resources. According to RBV, businesses achieve sustainable competitive advantage when they effectively manage the resources owned or obtained (Barney & Hesterly, 2012). As applied to the study, the RBV provides the conceptual lens to understand how obtaining financial resources may contribute to the organization performance. The application of the RBV may be helpful in letting participants identify what strategies needed to obtain financing that could help achieve superior organizational performance (Gillis et al., 2014).

Barney and Clark (2017) asserted that the most sustainable competitive advantage is achieved when the company has a human resource pool that cannot be substituted by its rivals. Investment in training and development is a means of retaining and winning people and the returns expected are performance improvement, productivity, innovation that results to increased levels of knowledge and competence. Bailey, Mankin, Kelliher and Garavan (2018) states that the human resource plays a crucial role in strategic implementation to be achieved through involvement of both employees and managers of the organization and these can be achieved through regular department meetings. Little (2013) argues that both skill and knowledge power are a form of capital whose concept implies investment in group of people through training and education which leads to increased productivity in a positive rate of return leading to growth in organization, increased profits, high remuneration and low staff exits. Kimeu and Maina (2018) concurs and reiterates that the human resource is one of the main parameters in organization performance. Highly educated managers utilize their knowledge and when they combine this with their social contacts manage to acquire appropriate human resources required to create a highly performing firm.

Critics of resource-based view such as Shafeey and Trott (2014) suggests that the theory is not prescriptive in that it does not provide managers with appropriate advice on which specific resources they should accumulate to gain competitive advantage. Lockett, Thompson and Morgenstern (2009) claimed that RBV is tautological and does not generate testable theories. He notes that majority of the studies applying RBV has failed to test its fundamental concepts, but have utilized the theory to establish the context of empirical research. He argues further that the theory is tautological with inattention to the mechanism by which resources actually contribute to firm performance. What remains crucial for the RBT proponents is to continuously get empirical backing and definition of the almost latent variable. In this vein, Hitt, Xu & Carnes (2016) recommend that researchers should supplement RBT theory with other theories to strengthen the arguments. The current study used dynamic capabilities theory in order to achieve its objectives.

### **2.2.2 Dynamic Capabilities Theory (DCT)**

The challenges, resistance and criticism of the RBT led to the search for a new paradigm—the DCT. This theory that is juxtaposed with the RBT, postulates that, on their own very few resources are productive. From the very early times scholars such as Penrose (1959) and Chandler (1962) argued that it was not sufficient to own and possess resources. They pointed out that services rendered by resources were as equally important as resources themselves. Organizations can possess similar amounts of resources but variations in performance would surface from resource utilization. DCT proponents suggest that capabilities are the drivers behind the creation, evolution, and recombination of other resources (Pearce et al, 2012).

According to Pisano (2017) it is never resources that are inputs in the productive processes in exclusion, but the services that resources render. She argues that the same resources when used for different ways and in combination with different other types of or amounts of resources, provide a different service or set of services. Consequently, the production activity requires the cooperation and coordination teams of resources (Teece, 2016). This theory emphasizes on the ability and capacity of organizations to combine, integrate, renew and reconfigure resources as needs arise. If control over scarce resources is a source of economic profits, then it follows that such issues as skill acquisition, management of knowledge, know-how (Pisano, 2015) and learning become fundamental issues. Organizations need more than just possessing resources. They must go an extra mile to ensure precise combination of such resources as needs arise or changes in the external environment occur.

Scholars such as Pearce et al (2012) argue that capabilities are a resource on their own. The bottom-line argument of the DCT is that, organizational performance is enhanced when firms are keen to recombine, coevolve, reconfigure, acquire and reallocate resources as their needs change. The theory is still in its formative stages and equally short on empirical grounding.

The problem with RBV is that the view of the firms as a bunch of resources is very static and limited and does not provide explanations on how successful firms endure over time with an increasing competitive environment. Those firms that have sustained good positions seem to demonstrate timely responsiveness and rapid adaptation to environment through internal changes in their structure and resources. It seems that they have mastered the management capability to coordinate and redeploy internal and external resources and competences (Teece, 2018). This ability to achieve new forms of competitive advantage

through the renovation of based resources and competences belongs to dynamic capabilities approach.

According to Teece (2014), dynamic capabilities follow the theory of RBV of the firm. As a matter of fact, DC can be seen as a complement to RBV approach. Capability has a conceptually different meaning than resources and assets. Capabilities are built upon resources using routines/ processes and are source of heterogeneity between firm performances, which affects their respective market position. The study used this theory as the concept of dynamic capabilities arose from a key shortcoming of the resource-based view of the firm. The RBV has been criticized for ignoring factors surrounding resources, instead assuming that they simply “exist”. So, while the RBV emphasizes resource choice or the selecting of appropriate resources, dynamic capabilities emphasize resource development and renewal. One without the other is insufficient for long term success since the market place is ever changing. If an organization has resources and competencies but lacks these dynamic capabilities, it may make a competitive return in the short run but is unlikely to sustain this in the face for change.

Organizational resources (human, financial & technological) may take on many of the attributes of dynamic capabilities, and thus may be particularly useful to organizations operating in rapidly changing environments. Thus, even if organizational resources do not directly lead the firm to a position of superior sustained performance, they may nonetheless be critical to the firm’s longer-term competitiveness in unstable environments if they help it to develop, add, integrate, and release other key resources over time. This study proposed that capabilities are a resource and have an influence on organizational performance.

### **2.2.3 Stewardship Theory**

The stewardship theory was developed by Donaldson and Davis in 1991 and advanced in 1993. The theory states that if managers are left on their own, they will execute their roles as responsible stewards of the assets they control and to the interest of the stakeholders. The theory further states that, interests of shareholders are maximized by shared incumbency of roles of the persons in management or leadership of a corporate entity (Schillemans, 2013). The stewardship holds that ownership does not necessarily mean owning a firm; rather it is merely holding it in trust. Stewardship theory is one of the leading theories of corporate governance (Keay, 2017).

Stewardship theory argues that the managers or executives of a company are stewards of the owners, and both groups share common goals. The board should play a supportive role by empowering executives and, in turn, increase the potential for higher performance (Glinkowska & Kaczmarek, 2015). This theory can also be applied in the liberalist sense for its promise to better service the interests of shareholder. The theoretical underpinning is normative based on the belief that the directors to whom authority is delegated will exercise stewardship. The executive and directors should be provided with extrinsic motivational factors such as elaborate compensation policies and incentive plans.

According to Chrisman (2019), the stipulations of the stewardship theory hold that executive manager purposes to do a good job and be a good steward of the corporate assets. Thus the theory posits that there is no inherent and general problem of executive motivation. Stewardship theory emphasizes on the importance of corporate leadership structures. The theory holds that performance variations result from whether the structural situation in which the executive is located facilitates effective action by the leaders or executives. The arising issue is whether or not the organization structure facilitates the

executive to formulate and implement plans for high corporate performance (Segal & Lehrer, 2012). In this regard, organization resources are bound to facilitate the achievement of the foregoing goal to the extent that they provide clear, consistent role expectations and also authorize and empower senior management (Glinkowska & Kaczmarek, 2015).

The Stewardship Theory emerged as an alternative to Agency Theory in the field of corporate governance (Keay, 2017). It is, therefore, understandable that the basic assumptions are defined distinctive to the Agency Theory assumptions. In the agency relationship, the emphasis is on building institutional and contractual mechanisms so that managers cannot achieve their own goals at the expense of shareholders (Joslin & Müller, 2016). The Stewardship Theory rejects the assumptions of Agency Theory and suggests that managers' behaviour is pro-organizational and collective, achieving higher utility by serving an organization. It further assumes that managers left on their own will act as responsible stewards of the assets that they control (Schillemans & Bjurstrøm, 2019).

Even though there are various theories on corporate governance such as agency theory, stakeholder theory, Resource Dependency Theory, Transaction Cost Theory and Political Theory, this study found stewardship theory most applicable as it describes the role of board and management in achieving corporate performance. Stewardship theory argues that the effective control held by professional managers empowers them to maximize firm performance and corporate profits. The Stewardship Theory links superior organizational performance to having better management of resources by the management. These executive directors are assumed to better understand business, and make superior decisions concerning organizational resources (Grace, Vincent & Evans, 2018). The

executive management is preferred for their professionalism, technical expertise, and commitment to the organization (Dumay, La Torre & Farneti, 2019).

In regard to the role of the RDAs management, organizational resources will assist the management to attain superior performance by their corporate entities to the extent that the leaders or top managers exercise complete authority over the corporation and that their role is unambiguous and unchallenged. This implies that the stewardship theory is concerned not with motivation of management but instead facilitative and management of organizational resources (Schillemans & Bjurstrøm, 2019). This theory underscores the importance of stewardship in organizational resources and corporate governance in regional development authorities. This theory was used by Gaturu (2018) to link superior organizational performance and corporate governances as well as alternative to Agency Theory in organizational resources management.

#### **2.2.4 Contingency Theory**

Contingency theory is a class of behavioral theory that claims that there is no best way to organize a corporation, to lead a company, or to make decisions (Tosi & Slocum, 2014). Instead, the optimal course of action is contingent (dependent) upon the internal and external situation. Several contingency approaches were developed concurrently in the late 1960s. They suggested that previous theories such as Weber's bureaucracy and Taylor's scientific management had failed because they neglected that management style and organizational structure were influenced by various aspects of the environment: the contingency factors. There could not be "one best way" for leadership or organization.

Historically, contingency theory has sought to formulate broad generalizations about the formal structures that are typically associated with or best fit the use of different technologies. The perspective originated with the work of Weill and Olson (2012), who

argued that technologies directly determine differences in such organizational attributes as span of control, centralization of authority, and the formalization of rules and procedures. Some important contingencies for companies are listed below: technology, suppliers and distributors, consumer interest groups, customers and competitors, government, and unions. The theory provides a rationale for analyzing different factors that a corporation considers when making a decision in competitive environment and this will enhance the performance of the organization.

The main tenet of best fit theory is an exploration of the connection between organizational resources and performance through an examination of the corporate governance between an organization's operation strategies and the drafted organizational resources processes and policies (Hollenbeck, Moon & Wagner, 2012). Corporate governance is the fit that gives leverage by means of policies, processes, and procedures that are largely known to be the core of the strategic approaches in managing organizational resources. Therefore, best fit facilitates a clear and strong connection between organizational resources and performance of RDA. This creates competence and ultimately led to superior performance that is reflected in organizational success (Fredericks, 2015).

According to (Danese, 2016), the emphasis should be on the understanding that organizational resources are vital in driving an organization's competitive advantage and that organizational resources practices are central in promoting this performance, if not many organizations may overlook or fail to acknowledge the link between organizational resources and performance. According to this approach, the manager's task is to identify which technique will in a particular situation under particular circumstances and at particular time, best contribute to the attainment of management goals. Methods which are

highly effective in one situation may not work in other situations. Results differ with situation difference.

### **2.2.5 How the Study Theories Interrelate**

Stewardship theory, dynamic capability theory and resource base view theory have significant application in this study. The theories complement each other and they have aided the study to achieve its objectives. The three theories focus on organizational resources, for instance, resource based theory argument is that different types of resources possessed by a firm can have a significant influence on its performance. Variations in resources across firms will on the other hand, lead to differences in performance. Therefore, this theory focuses on the kind of resources an organization possesses which can human resources, technological resources or financial resources.

Dynamic capability theory is juxtaposed with the RBT, postulates that, on their own very few resources are productive. According to this theory that it was not sufficient to own and possess resources. They pointed out that services rendered by resources were as equally important as resources themselves. Organizations can possess similar amounts of resources but variations in performance would surface from resource utilization. DCT proponents suggest that capabilities are the drivers behind the creation, evolution, and recombination of other resources

On the other hand, stewardship Theory puts emphasis on the fact that the key role played by directors in organizations is to oversee and ensure good investment in organizations for the purpose of ensuring financial sustainability.

Dynamic capabilities theory views capabilities are what the organization can do based on the resources it possesses, another key concept within resource-based theory. A good and

easy-to-remember way to distinguish resources and capabilities is this: resources refer to what an organization owns, capabilities refer to what the organization can do. Capabilities tend to arise or expand over time as a firm takes actions that build on its strategic resources. Capabilities are important in part because they are how organizations capture the potential value that resources offer. Instead, capabilities are needed to bundle, manage, and otherwise exploit resources in a manner that provides value added to customers and creates advantages over competitors.

Stewardship theory is a framework which argues that people are intrinsically motivated to work for others or for organizations to accomplish the tasks and responsibilities with which they have been entrusted. According to stewardship theory, not only does management have the responsibility to use the assets entrusted to them for the benefit of shareholders, they also have the overriding obligation to provide those shareholders with an account of what it has done with those resources. This means that management are accountable to the entity's capital providers for the custody and safekeeping of the organizational resources and for their efficient and profitable use, including protecting them from unfavorable economic effects such as inflation and technological changes

#### **2.2.6 Overall Theory that Guided the Study**

The study was guided by resource based view theory. The resource-based view advances the importance of firm-specific resources, that is, those resources that maintain value in the context of the given firm's markets and other resources that are difficult to replicate by other firms. The theory generates insights into how regional development authorities create and obtain resources when the operating environments are non-munificent, resource-constrained, or underdeveloped. To mobilize the needed resources, organizations

develop strategies (as well as internal structures) designed to enhance their bargaining position in resource-related transactions.

Organizations typically adjust their strategies to adapt to changes in power relationships with other stakeholders so to survive in resource constrained environment. Resource-based theory also stresses the merit of an old saying: The whole is greater than the sum of its parts. Specifically, it is also important to recognize that overall strategic resources are often created by taking several strategies and resources that each could be copied and bundling them together in a way that is difficult to duplicate.

The fundamental point of RBV is that company success is dictated by the capital it holds. An company of more valuable scarce capital is more likely to generate sustainable strategic advantages. In a recent review, in strategic management, Schillemans & Bjurstrøm (2019) argued that RBV “has emerged as a central insight driving inquiry into the determinants of organizational performance”. The current study attempted to shade more light on relationship of organizational resources (financial, human, and technological resources) and organizational performance. The main propositions of this theory that resources possessed by an organization have an influence to its performance were the anchoring postulation of this study.

Resource based theory explains that resources such as human resources, technological resources and financial resources are necessary components for business success and survival of the firm. Human resources are the key in the operations of the organization, thus organization with adequate education, experience, and skills can face the challenges of the business undertakings. Financial resources are also equally important in any organizational undertaking. Technological resources have come equally important in organization performance. Globalization and advancement in technology have forced

organization to re-look the existing resources from technological point of view. Thus lack of resources in either of these key areas can hamper an organizational ability to meet its performance objectives. Therefore, this theory was instrumental in examining organizational resources at RDAs.

## **2.3 Conceptual Review of Variables**

### **2.3.1 Technological Resources**

The disparity between technological progression and consumer demand means that technology does not have an impact on superior performance of a firm (Paladino, 2009). An investigation of performance in technology-based firms in Kenya by Kinot (2009) indicated that investment in research and development directly contributed to higher performance of a firm. However, Kinot (2009) only analysed a direct relationship between technology and performance without taking into account any mediation, which is a gap that the current study attempted to fill by mediating the relationship with competitive advantage while maintaining technology as an independent variable.

Mu, Peny and Maclachian (2009) emphasized the spirit of creating novel business out of continuing practices for valuability of a product and reinvigorating sluggish companies which often accomplish their objectives through the introduction of breakthrough innovation to make it hard for competitors to copy, making a firm's performance greater than the contenders". The study used both descriptive statistics and regression analysis, which were adopted by the current study. An entrepreneur's ability to take risk has a stronger effect on decision-making in the firm and on performance. The pointer to risk-taking is the willingness to advance in hesitant returns and levels of research and

development which give a firm an opportunity to discover complex product production processes, resulting to firm performance enhancement (Merlo & Auh, 2009). The findings of the study indicated that the environment is part of the orientation.

Nonetheless, the study of Merlo and Auh (2009) adopted orientations as the dependent variable, which was moderated by environment factors, whereas the current study adopted the environment to moderate organizational resources in influencing performance.

According to Rhee et al. (2010), to invest in research and development calls for evaluation of advantage and cost before making the decision whether to adopt or invest in technology. In a survey study by Rhee et al. (2010), technology is linked to greater firm innovativeness. This has to do with focusing the company's effort on developing and utilizing resource to produce unique products for sustainability of competitiveness and performance. The conclusion of the study was that there is a strong positive relationship between technology and performance in SMEs in Korea. However, the study used correlation analysis, which was considered weak for the current research.

From the WEB (2010) report, a firm will have a better competitive edge when it is in a position to convert the knowledge created into innovative production over the others who are not able to do the same. Lum (2011) upholds that values, such as being exceedingly proactive towards market opportunities, being tolerant of risk and opens to innovation, will result to a firm's advantage in performance. A quantitative survey by Benedetto and Mu (2011) pointed out that innovation brings out new products, services and processes which are as a result of new ideas, experimentation and creativity. Anal et al. (2011), concluded that innovativeness and performance have a positive relationship, due to the existence of uniqueness and inimitability of the products. The study of Anal et al. (2011) analysed a direct relationship between innovation and performance without either a

mediator or a moderator; therefore, the current study mediates and moderates the relationship.

An interactive research by Hakala (2011) maintained that for a firm to have a better performance than its opponents, then it must make use of complicated technologies which cannot be duplicated by competitors for product development, use swiftness of combination of original technologies, and proactively expand new technologies in creating novel, valuable and distinctive product ideas. In addition, the firm's technical skills, research and development resources and technological stand appear to be critical in passing originality and better deliberated products into the market, hence the firm's superior performance (Hakala, 2011). Although the findings of the studies showed a strong and positive relationship between performance and technology, the studies used survey design only, which is not adequate for the current study, hence the current study used of descriptive and explanatory design as well. The study concluded that technology-oriented firms emerge to have the capability and will to obtain advanced technological setting, and such firms hold the idea that innovation is a strategy for superior performance. Nevertheless, the study employed structural equation method for data analysis, which was not appropriate for the current study.

Spanjol et al. (2011) argues that for technology oriented firms to achieve superior performance, then they should apply technical ability to produce new products in the market to cope with competition, flexible products so as to change with changing needs of customers and be able to maintain them, and originality in developing original products, services and processes which are unique and difficult to imitate. Anal, Dionysis and Carmen (2011) found out that customers choose technologically superior products and

services and that customers stick to a firm that has the capability to react to their choices in a successful way.

Technological competence is viewed as the principal means of a firm to create product differentiation which will end up being unique to a specific firm and promote product designs that are not beyond those of competitors. Firms which use technological -oriented strategy are in support of a strong research and development department, acquisition of new technologies and application of the most recent technologies which enhance superior turnovers and be difficult to be copied by competitors (Slater et al., 2012). Cristima (2012) noted that for a firm that invest in technology to maintain its superior performance, it should focus on engaging in the search for new market opportunities and rebuilding of existing areas of operations to keep on producing unique products. The two studies used organization learning theory and knowledge management theory which were considered useful in the current study, hence the decision to adopt organization learning and RBV theories.

### **2.3.2 Financial Resources**

Financial resources include debt, equity and earning (Waswa, 2017). Financial resources are about the finance required to fund the budget of implementing strategy. Each and every business enterprise needs adequate financial resources for development, daily operations and growth (Ridley-Duff, 2015). In both the developed and developing economies, finance has been identified as the most important factor determining the survival and growth of organization (Tambunan, 2009). A number of studies support the need of adequate financial resources in strategy implementation. However, organizations face quite some challenges in accessing the needed financial resources (De la Torre, Gozzi & Schumukler, 2017).

Mugambi (2017) identified some of the existent financial resources as cash-in-hand, bank deposits, capital and savings. The study revealed that these financial resources may go a long way to oversee project and plan implementations. They may also have additional advantages like increasing firm performance and increasing competitive advantage. Financial resources ensure that everything may be needed to successfully implement strategic plans is obtained. Henderson (2016) identified the most important element of overseeing a plan take place as funding. The funding can be obtained from a variety of sources like loans, savings, investment and grants. Cardeal and Antonio (2012) argue that financial resources are key in the development of human capital resources and are both key for sustainable competitive advantage of organizations.

A recent school of thought based on extensive research suggests that complete advantage of a firm depends on the resources the firm can command (Grattan, 2011). Financial resources are one of the critical resources which affect the ability of an organization to execute given tasks. According to Hussey (2013) financial resources can be a limiting factor and the way which it is obtained may make it easier or harder to further resources in the future. Leveraging of the firm is a key strategic decision and affects the strategies which are developed in the future and how successfully they can be implemented. Leadership plays a key role in financial resource allocation and alignment; a leader must prioritize and makes resources available

The organization needs adequate assets and enough time to help the execution procedure. Genuine costs consolidate sensible time responsibility from staff to fulfil a target, a sensible conspicuous verification of costs related with a methodology, or unexpected cost invades by vendors (Olsen, 2005). Kiboi, Perks & Smith (2018) posited that while providing financial resources (budgeting) which to support strategies, care should be taken

to ensure that financial resources are allocating to units in appropriate to their contribution of strategic role and that consuming resources (inputs) will cause desired outputs. They conclude that successful implementing of strategies results from integrating and coordination of technological innovations, production processes, marketing, financing and personnel to achieve the defined goals.

Converting these ideas into successful ventures requires financial resources. Financial resources are central to a firm's business strategy and have important implications for firm behaviour (Wang, 2016). The availability of financial resources to acquire such services improves the start-ups ability to compete and remain relevant to the client and the market. The use of financial resources by management to increase efficiency of managerial activities through the acquisition of equipment that supports technological functions and automation of processes is also relevant to tech start-ups. Financial resources are also vital in acquiring managerial advice, advice from experts who understand the market and market forces. Financial resources are useful in perfecting an application already under development i.e. through evaluation to reduce/eliminate errors etc. (Waswa, 2017).

### **2.3.3 Human Resources**

Human resource is concerned with the people factor in the organization which is the most critical resource for an organization. The idea of the importance of human resource is mainly founded on the idea that management is indispensable basis of competitive advantage. A greater part of the latest studies has the same opinion that Human Resource operates as an aspect in recognizing the performance of the organization (Brenes, Mena & Molina, 2007). The human resource factor in strategy implementation involves attracting the right type of people; developing the knowledge, skills and abilities and human resource retention (Maw-Shin, Yung-Lung & Feng-Jhy, 2014). Successful organizations

seek to have the right type and numbers of people to perform the duties aimed to achieve the firm's objectives (Schuler, Randall & Jackson 2006). To capitalize on organization on its potential, it must design and deliver human resource practices that focus on necessary employee performance competencies, creating an HR system with vertical and horizontal alignment around those competencies (Herbert, Heneman & Anthony, 2011). Misalignment of human resource practices can produce conflicting messages to employees, leading to reduced motivation and commitment to the company strategy. Further to that attempts to adopt isolated best practices without sufficient consideration of fit have negative consequences (Samnani & Singh, 2013).

For human capital to be unique and provide higher performance than competitors, the firm must invest in its employees in terms of time and money through training and development and education (Lazear, 2009). Human resources obtained from opponents will suit some of its competitors, although it must go through a phase of vibrant alterations in terms of cost while fitting it to the needs of the changing environment (Wang & Mahoney, 2009). Firm's knowledge, skills and experience can create superior performance in a firm if they are fruitfully used to add value in enabling learning and they are applied to making decisions which are superior to those of competitors (Lazear, 2009). Though the studies were analysed using multiple regression which was adopted for the current study, the studies used RBV theory only, which was used in the current study together with organizational learning theory.

Guthrie, Flood, Liu and McCurtain (2009) in a survey which was done in Ireland in work systems found out that for a firm to retain its high performance, demand for labour must be heterogeneous, implying that the firm will have different jobs that will require different skills, and so the supply of labour must also be heterogeneous in that individuals will

always differ in both the type and level of their skills, knowledge and experiences. The study concluded that high quality human resource with high ability are defined to be rare and it is measured through cognitive ability which has been constantly illustrated to have a strong positive correlation with individual job performance. This is in agreement with Unger, Rauch, Frese and Rosenbusch (2011) who argue that cognitive ability has been frequently used to test the value selection in the organizational usefulness in the research on the relationship between human capital and entrepreneurial success. However, this study tested for a direct relationship between the independent and the dependent variables, whereas the current study tested for indirect relationship by introducing mediating and moderating variables.

Social complexity of human capital occurs when the social phenomena is so complex for it to be influenced, that is, it is inimitable by competitors (Guthrie et al., 2009). This is in agreement with Kenneth, Anderson and Eddy (2011) in the suggestion that social complexity arises from human interaction and transaction specific relationships, which are normally complex. The research explained that the relationship between key personnel, like sales representative and buying agents or buyers, over time develop and become a group of network that includes marketing staff, production, distribution staff, management and final consumers. This ends up being very complex in nature and difficult to influence, hence resulting in high performance. The study of Keneth et al. (2011) however used interviews as a data collection instrument and was done on a basketball programme, not mobile phone companies.

According to Zarutskie (2010), if a company desires to sustain its competitive advantage, then it must understand the components of the human capital resource that can contribute to above-average profitability. The research claimed that human capital can only be

measured through knowledge, experience, skills, competencies and cognitive ability. This is in contrast with Hotice (2010) who indicates that human capital is measured through results.

Barney and Hesterly (2010) asserted that casual ambiguity exists when the link between the firms' human resource and competitive advantage is hard to understand, making it complicated for competitors to duplicate the responsible resource for profitability and market leadership. Although the study showed a positive direct relationship between human resource and competitive advantage, it did not establish an indirect relationship between human capital and performance by either mediating or moderating the relationship, which was done by the current research. Wernerfelt (2011) found out that the features of an organization's team may gratify the state by accomplishing and sustaining competitive advantage. Also, it was noted that singly, superior skills with distinctive resources can mutually create the firms superior performance. Coff and Kryseyanski (2011) quantitative research noted that better education of employees leads to more productive human resources and proved that the correlation between education and cognitive ability is strong. However, the current study adopted the use of quantitative data as it was adequate for the research.

Jiang et al. (2012) noted the existence of a positive association between employees' unique skills and firms' superior performance. Mackey, Molly and Murriss (2014) advanced that knowledge and skills are unpredictable, but once they are gained they stay moderately established. The studies used survey design and correlation method to test the relationship, which the current study considered insufficient, and hence this study employed both explanatory and descriptive survey.

Human resource can shift from one firm to another because some time it is not easy to guard against headhunting by rivals. Nevertheless, human capital is considered to be the most important and unique resource if, and only if, it is specific and exists in an environment where it was initially developed (Nyberg et al., 2014). Further, the study indicated that human resource as stock originates from employees' selection, training and development, which increase firm specificity and decrease inimitability, resulting in a better firm's performance. For a firm to gain superior performance, management requires to possess technical, human and conceptual skills. The three skills when combined are important to producing superior management for superior performance. The above study employed RBV which was adopted for the study together with organization learning theory.

A collection of managerial skills facilitate a firm to set up the exact skills needed to cope with the precise situations (Mackey et al., 2014). In addition, the study noted that human resource is increasingly becoming a source of competitive advantage, so it is important for a firm to assemble up a workforce that has the capacity to attain superiority without being duplicated by competitors. The study of Mackey et al. (2014) looked at human capital as an independent variable and competitive advantage as a dependent variable, whereas the present study treated competitive advantage as a mediating variable but maintained human capital as one of the dependent variables. Further, the study recommended that competitive advantage can be used as mediator or an independent variable and hence the current study adopted competitive advantage as a mediator variable.

#### **2.3.4 Corporate Governance**

Hartarska and Mersland (2012) define corporate governance as "the mechanism through which stakeholders (shareholders, creditors, employees, clients, suppliers, the government

and the society, in general) monitor the management and insiders to safeguard their own interests" (p. 219). Rouf (2014) define it as follows: "It is a framework through which monitors and safeguards the concerned actors in the market (managers, staff, clients, shareholders, suppliers and the board of administration" (p. 74). It is management through which the company is guided and monitored for the purpose of striking a balance between its interests, on the one hand, and the interests of other related parties such as investors, lenders, suppliers and clients in addition to the environment and society.

The concept of corporate governance has permeated most economies globally. More state corporations (SCs) are becoming increasingly aware of the need to implement efficient management as they are increasingly being held accountable for their performance. In as much as some of these SCs were established for some historical non-economic social functions, the same functions like Social Responsibility are likewise also being conducted by the private sector enterprises that still maintain profitability. The SCs are also faced with stiff competition meaning that they have to shape up or ship out. Elected and/or appointed governments are also coming up with economic blue prints which focus on professional and efficient service delivery (Alibašić, 2018).

The improvement of corporate governance practices is widely recognized as one of the essential elements in strengthening the foundation for the long-term economic performance of countries and corporations. As is the trend with other countries, corporate governance has gained prominence in the Kenya. Investors are demanding high standards of corporate governance in the companies in which they invest. The need for corporate governance is becoming more pronounced as a way of safeguarding the interests of various stakeholders. The importance of corporate governance for corporate success as well as for social welfare cannot therefore be under estimated (Bénabou & Tirole, 2010).

### **2.3.5 Organizational Performance**

Organizations are instruments of purpose coordinated by intentions and goals. These purposes, intentions and goals may not be consistent across firms or even within a firm. However, talking about the purposes of organizations and evaluating comparative organizational success and failure in fulfilling those purposes are conspicuous parts of conventional discourse (Abdi, 2015). The common denominator is that firms are in business or various ventures to succeed. Therefore, performance remains a crucial aspect of the organization and at the heart of financial management. It remains a recurrent theme of great interest to both academic scholars and practicing managers (Liao & Wu, 2009).

Organizational performance relates to efficiency, effectiveness, financial viability and relevance of the firm. Effectiveness is concerned with the unique capabilities that organizations develop to assure achievement of their missions while efficiency is the cost per unit of output that is much less than the input with no alternative method of the input that can go lower for same output (Machuki & Aosa, 2011). Financial viability is a firm's ability to survive. It means that an organization's inflow of financial resources must be greater than the outflow. According to International Development Research Centre (IDRC) (1999) the conditions needed to make an organization financially viable include multiple sources of funding, positive cash flow, and financial surplus.

The stakeholder based view has since influenced the various measurement tools of performance depending with the metamorphosing influence of the stakeholder. This approach assesses performance against the expectations of a variety of stakeholder groups that have particular interests in the effects of the organization's activities (Wellens & Jegers, 2014). The balanced score card performance measurement system by Chen et al. (2010) is based on this theory. It incorporates financial, internal processes, the

customer/market and learning and growth. This is a new trend toward sustainable balanced score card while reporting. However, it is yet to crystallize given the challenges related to quantifying social and environmental performance. A few organizations as well as industries are yet to develop formulae that would yield to a performance index that carries on board every indicator of performance.

Thus, performance remains complex in definition, practice and operationalization. Unresolved issues still revolve around how performance should be observed as well as what and how to measure it. What is generally agreeable though is that an organization's performance cannot be explained by a single factor. The resources a firm possesses and control may lead to superior performance. Resources possessed form basis of unique value creating strategies and their related activity systems. These address specific markets and customers in distinctive ways which may eventually lead to competitive advantage. How the resources influence performance could be subject to a number of other factors among them corporate governance structures (Wahab, Ariff, Marzuki & Sanusi, 2017).

### **2.3.6 Regional Development Authorities in Kenya**

Since 1974, Kenya embraced regional development approach for national development planning. This was done through establishment of six Regional Development Authorities (RDAs), based on rivers and large water-body basins, covering the whole country (Kimolo, 2013). The six RDAs are charged with the mandate of spurring integrated regional development to address equitable and balanced socio-economic development in the country. The RDAs have been involved in implementation of integrated programmes and interventions of strategic national importance and in ensuring that resources in these regions are utilized in the most optimal and sustainable manner with minimum duplication of efforts and resource use conflict (Brown, 2018).

Since inception, RDAs have been involved in implementation of integrated programmes and interventions of strategic national government interests, within their areas of jurisdiction. Through formulation of integrated regional development plans the RDAs have been mandated to identify resource based development priorities to enhance attainment of equitable exploitation and utilization of resources in the respective areas. However, formulation of plans has been a key challenge to most RDAs for only a few have been approved regional development plans (Tipis & Njoroge, 2019).

Thus they have not been able to effectively discharge their primary roles of stimulation of socio-economic development through sustainable utilization and management of basin based resources (Arumonyang, 2019). The challenges have been evident in discharging their key mandated functions including; Integrated Regional Development Plans are all inclusive multi-sectoral and long term plans for development of the regions. This will help improve economic performance and enhance the regions' competitiveness through identification of regional resources, investment opportunities and development priorities (Karanja, 2015).

However, in line with the new Constitution, RDAs will play a very key role in the implementation, development and management of trans-county resources of strategic national government interest (Kutto, 2016). Part 1 of the Fourth Schedule of the Constitution of Kenya 2010 on distribution of functions between the national and county governments, assigns functions currently being performed by RDAs to the national government including; Function 2: the use of international waters and water resources; Function 22: protection of the environment and natural resources with a view to establishing a durable and sustainable system of development and Function 33: public investments (Ongeti, 2013).

The functions of RDAs are further supported by Article 69, 191 and 186(3) which encompass, among others, integrated planning and coordination of all development projects within the areas of jurisdiction and specifically to implement any projects for the purpose of utilization of natural resources of the area. The constitutional lacuna created by lack of an explicit article and institutional framework for regional (development) planning creates an opportunity to legislate a new type of regional (development) planning for Kenya (Tipis & Njoroge, 2019).

As an approach, regional development planning in Kenya and particularly within the RDAs has also been faced with key challenges. A protracted and winding plan preparation process brought about by limited planning skills, capacity and financial resources have affected effective plans formulation and implementation. The process has also operated without linkages to key planning institutions and without effective implementation frameworks. A robust monitoring framework to monitor the achievement of key indicators and milestones of regional development has not been clearly instituted in the plans. The effects of all these has been glaring and entrenched regional problems and an increase in regional disparities within the country (Karanja & Mulongo, 2011).

These among other challenges affect the effectiveness of regional development authorities' capability to unlock wealth creation and spur growth. However, there is need to transform these challenges into opportunities for sustainable and harmonious regional development. Effective, participatory and coordinated regional development planning approach by the authorities could catalyze growth in the regions (Muzny & Simba, 2019).

Kutto (2016) aimed at establishing the effect of corporate governance on the financial performance of Regional Development Authorities in Kenya. The study established that board size and composition depends on an effective selection process for new directors,

which in turn rests on a clear definition of what the duties of a directors are and a situation be avoided where one director is in more than one committee. The study also established that board (measured by the presence of either gender in the board) had a positive outcome on the financial performance of the firm. In the case of disclosure of information as one of the corporate governance principles, the research found a weak correlation with the financial performance of the regional development authorities. Further, it was established that there is a positive association between the composition of audit committee and financial performance of the Regional Development Authorities in Kenya.

Rono, Okoth, Mwambota and Campus (2013) found that though the strategic planning process have have contributed to the performance of Coast Development Authority, there were challenges the authority faced while implementing its strategic plan which were focused on when drawing recommendations from the study the implementation of which are expected to positively contribute to improved performance of the authority. The onus is therefore on regional development authorities such as CDA to mobilise regional resources for development. Though the study used survey research design its study population focused on a different population compared to the current study which focused on six Regional Developmental Authorities. Further the study did not examine influence of organizational resources on performance.

Tipis and Njoroge (2019) purposed to examine employee performance in relation to training and development in Ewaso Ngiro South Development Authority (ENSDA). The findings showed employee performance in relation to training and Development is directly proportional. The study suggested that the management of Ewaso Ngiro South Development Authority should pay special attention to performance appraisal as they were found to play a significant role in improving performance of employees and should

regularly train the employees to improve their skills for current and future duties and responsibilities as it was seen to positively affect performance of the employees. The study focused one aspect of human resource, employee training and development thereby leaving significant gap on holistic nature of human resources and organizational performance.

Njue and Jagongo (2016) focused on the impact of performance budgeting on service delivery by the six Regional Development Authorities. The study findings indicated that performance based budgeting does impact positively service delivery by state corporations. In particular the study findings indicate that focus on performance measures and outcomes in performance based budgeting had a larger impact on service delivery hence a need to lay that emphasis for policy formulation. The study recommends future research to review other factors which also impact service delivery. This study filled this gap by examining influence of organizational resources on performance of regional development authority.

Kimolo (2013) sought to establish the relationship between employee empowerment practices and employee performance in Regional Development Authorities in Kenya. Whereas employee empowerment practices were found to be moderately embraced in regional development authorities, employees were in agreement that employee performance practice was in place and was being used. The study concluded that employee empowerment practices have impact on employee performance. Even though the study focused on human resources aspect specifically employee empowerment practices, other aspects of human resources such as quality were not studied.

## 2.4.7 Operationalization of Variables

The following Table 2.1 shows how the study variables were measured, measurement scale to be used and the corresponding questions in the questionnaire.

**Table 2. 1: Operationalization of Variables**

Variable	Variable Type	Indicators/Operationalization	Measurement scale	Section in questionnaire
Financial resources	Independent	Financial Resource allocation	Interval/Ordinal	2
		Resource disbursement		
		Resource Utilization		
Technological Resources	Independent	Appropriateness	Interval/Ordinal	1
		Infrastructure		
		Technological Innovation		
		Utilization of technological		
Human resources	Independent	Quality of Human Resource	Interval/Ordinal	3
		Adequacy of Human Resource		
Performance	Dependent	Project Completion Rate	Interval/Ordinal	5
		Nature of Audit Report		
		Fund Absorption Rate		
Corporate Governance	Moderating	Board Composition	Interval/Ordinal	4
		Accountability		

## 2.4 Empirical Literature

### 2.4.1 Technological Resources and Performance

Kimani (2015) determine the level of use of information technology and its relationship with organizational performance at PS Kenya. A descriptive survey was used. Primary data was collected using a semi-structured questionnaire. The population for this study

comprised of the entire PS Kenya staff which was 438. The questionnaire was administered electronically for data collection, out of which 311 respondents responded to the study resulting in a response rate of 71 percent which was considered as a sufficient representation of the organization. The study findings also revealed that there was a positive relationship between the level of IT use and organizational performance at Population Services Kenya. However, State owned Corporations such as RDA were not sampled. The role of corporate governance in resource-performance relationship was not the focus of this study. The study also assessed the level of IT uses and not how it influence performance which is the purpose of this study. The study also investigated appropriateness of technological resource on organizational performance in presence of moderating variable (corporate governance).

García-Sánchez, García-Morales and Martín-Rojas (2018) sought to analyse whether technological assets influence absorptive capacity (potential and realized absorptive capacity) and how absorptive capacity influences internal labour flexibility, organizational innovation and performance. A quantitative study was carried out with data gathered by personal interview using a structured questionnaire. Relationships proposed in the theoretical model were estimated through a structural equation model, using a sample of 160 European technology companies. The results show that support for technology and improvement of technological skills and technological distinctive competencies promote improvement in organizational performance through their positive influence on the processes of potential and realized absorption capacity. Potential absorptive capacity influences realized absorptive capacity, which impacts not only internal labour flexibility but also organizational innovation and organizational performance. However, the study used technological asset as a moderating variable. The study was also conducted in Europe unlike developing economies. The gaps were filled as this study; corporate governance

was used as a moderating variable. The study targeted regional development authorities in Kenya.

Abdi (2018) examined the effect of information Technology on performance of Dakawou Transport LTD. This study adopted a descriptive research design. The target population for this study, comprised of 105 top management, middle level management and subordinate staff across the organization. Stratifying the entire population ensured, a sample that accurately reflects the population being studied. Structured questionnaire was used as a data collection tool to collect both qualitative and quantitative data. The findings indicated that, majority agreed that Information technology is a major contributor to organizational performance. It was also established that Information technology offers organizations, competitive and effective communication. However, the study did not use inferential statistics to establish effect of IT on performance and therefore, the findings cannot be generalized. The current study used inferential statistics such as Pearson correlation analysis and linear regression analysis to establish the relationship between variables.

Mutuku (2018) was to determine the effects of the strategic use of Information Technology (IT) on the performance of Machakos Huduma Centre. The study used a case study research design. Data collection was done through use of interview guide as the primary instrument of data collection and Huduma Kenya publications, their website and other studies conducted on Huduma Centres as sources of secondary data. Two managers, six staff members and four customers at Machakos Huduma Centre were interviewed. The results showed that there was substantial connection between the strategic use of Information Technology resources and the performance of Machakos Huduma Centre. Nevertheless, the study was purely qualitative and therefore, the philosophical approach

was purely inductive. The research adopted case study research design and thereby suffer limitation of case study. The study adopted mixed methodology. Explanatory design which informed the philosophical approach of the study

Kihara (2017) intended to establish whether technology influences the performance of state-owned organizations. A mixed design involving quantitative and qualitative designs was used to obtain information from 115 firms drawn from the total population of 593 registered SMEs in Kenya. Stratified sampling technique was used to classify these firms as small or medium, young or old. A systematic random sampling was the used to select the organizations that participated in this study. In each firm selected, a self-administered questionnaire was then used to collect data from 115 respondents who were either the real owners or CEOs. Specifically, four out of five drivers tested in this study were found to be significant and positive influence on the performance of manufacturing SMEs. These drivers are leadership styles, structural adaptations, human resources and technology embraced by the SME firm. The study cannot be utilized in the context of RDAs as it only targeted only SMEs, and it failed to indicate which counties were sampled in Kenya. The study targeted RDAs from six regions in the country and therefore, the conclusion and recommend were conclusive and definite in regard to regional development authorities.

Karimi, Mazidi, Amini and Latifi (2014) investigated the impact of information technology capability on firm performance; a focus on employee customer profit chain. This was accomplished based upon quantitative data gathered from a sample of 212 employees of the Technical and Vocational organization in Mashhad city. Results revealed a strong support for the proposed model. In particular, the association between IT capability and Service process innovation with Employee-customer-profit chain and their

leverage effect facilitate the organizations' movements along with the chain which was significantly confirmed.

#### **2.4.2 Financial resources and performance**

Ahamed (2015) sought to determine the determinants of strategy implementation in service firms. The study adopted a descriptive research design. In this study the total population comprised the 200 World Food Programme employees based in Nairobi and Somalia. A stratified random sampling was used to draw 30% of the 200 employees which translates into 60 employees to form the sample size. Primary data was collected using a questionnaire. The study showed that human resources, financial resources, information systems and organizational structure displayed statistically significant positive correlation with strategy implementation. Financial resources had a weak positive correlation with strategy implementation. The weak relationship with strategy implementation provide sufficient evidence that there is need for moderating or mediation variable, however, the use of strategy implementation as dependent variable further indicated that there is need to conduct this study to find out if the same results can be replicated using organization performance.

Odack (2015) sought to investigate how organization resource can create and sustain a competitive advantage. The study targeted a population of USIU students who were registered within the time which the study was being conducted. The design used for this study was mainly descriptive in nature. The data collection was done using questionnaires which were considered as the most appropriate tools for collection of primary data. The study revealed that majority of the respondents agreed that financial resources at USIU are key in the development of human capital resources, financial resources at USIU are key for sustainable competitive advantage of organizations, USIU financial managers employ

the resulting knowledge in a proactive way to build competitive advantage, competitive advantage at USIU is gained from an initial endowment of financial resources, USIU financial managers ensures that the firm is adequately capitalised, USIU employs high level of debt because of the reluctance to relinquish control by the firm owner. Besides using competitive advantage as dependent variable, the sampling procedure was not clear as it only focused on finance managers. In this regard, it was difficult to generalize the findings to RDA which this current study seeks to investigate.

Sulaiman (2016) critically investigated the impact of financial resources on firm performance. Data has been collected from state owned institutions in Australia. The analyses, using factor analysis and multiple regression analysis, gives rise to interesting outcomes. Interestingly, the analysis demonstrates that Chief Financial Officer (CFO) experience and the financial resource dimensions do not significantly influence firm performance. In regard to other studies, the study indicated that financial resources do not influence performance. This is in contrast with previous study as some of them have indicated positive influence on performance. Further the study used several financial resource dimensions but did not indicate which dimension failed to have impact on performance. The current study sought to clarify the findings on no significant influence of financial resources on performance and further, examined the influence of moderating variable (corporate governance).

Ager, Rukangu and Njati (2015) sought to establish how financial resource influences successful implementation of strategic plans in the Ministry of land, Housing and Urban Development. The study adopted descriptive research design. The study was conducted in Ministry of land, Housing and Urban Development, Imenti North Sub-County land offices, located in Meru town. The target population of the study consisted of 53

management staff from all the department land offices in Imenti North Sub-County Meru town. The study revealed that there was sufficient statistical evidence that there was a significant relationship between financial resources and successful implementation of strategic plan. The study focused on public institution in Kenya; however, it was not carried out in the headquarters of Ministry of land, Housing and Urban Development since resource allocation and management are controlled from the headquarters. The study did not focus on organization performance, rather on strategic plan implementation. Therefore, the current study will seek to examine financial resources and how it influences organizational performance.

Nganga, Wangithi and Njeru (2016) sought to determine the effect of resource portfolio on performance of tourism government-owned organizations. The study used a cross sectional approach to determine the effect of resource portfolio on the performance of the tourism government agencies. The population of the study included management and non-management staff. The researcher used stratified sampling to select a sample size of 420. The data was collected using questionnaires from management and non-management staff and also secondary data about performance of selected tourism organizations. The study found that resources were critical to a firm's performance. Financial resources were not necessarily influential since the availability of the resources could not guarantee performance unless properly utilized. However, the conceptualization of financial resources was not clear as the study concentrated on resource portfolio at the expense of characteristics that are inherent in the financial resources which influence performance. Another shortcoming of the study was that it focused on management and non-management staff using same tool of data collection and at the same time used both primary and secondary data to produce single output. Therefore, the conclusions and

recommendations were not reliable. The current study used questionnaire as primary data collection tool from the management of the RDAs.

Obonyo (2018) sought to establish factors affecting the globalization of small and medium enterprises in Nairobi, in the information technology (IT) trade industry. This study used a descriptive research design in order to provide a description of the globalization in SMEs in the IT trade industry and how it is influenced by technology, financial resources and legal regulatory framework. The study population comprised of 103 SMEs operating in Nairobi in the IT trade industry. The SMEs managers were involved directly in responding to the study questionnaire. Stratified random sampling technique was used to select samples for the study; strata were constructed in regard to the zoning of market regions in Nairobi; this included Nairobi CBD, Ngara and Muthurwa markets. The findings showed financial resources and legal and regulatory framework had positive significant correlation with globalization of SMEs. Financial resources enable SMEs to establish overseas offices and carry out recruitment for their foreign ventures. The utilization of legal and regulatory framework in conjunction with financial resources was not stated and most study have used legal and regulatory framework as moderating variables. Further, the study used globalization as dependent variable and the study did not include performance metrics. The current study used organizational performance as dependent variable and corporate governance as moderating variable.

#### **2.4.3 Human Resources and Performance**

Widarni (2015) sought to establish the influence of Human Capital Elements on Performance: Evidence from West Java. A valid research instrument was utilized to conduct a survey on 250 commercial based state entities and 897 respondents that are representative of 397 organizations and 1,087 respondents. Correlation and regression

analysis were conducted to ascertain the validity of the hypotheses. The result was established that human capital elements (employee educational level, experience and motivation) are associated with performance. Furthermore, human capital as a whole accounts for 55.9 percent of the variation in performance. There were methodological gaps in the manner in which validity and reliability of the research instruments. The study did indicate how these two were achieved in the study although correlation and regression analysis were used. Further, the study was conducted in Indonesia's SMEs making it difficult to replicate the findings to Kenya public institution context. Here there is a need to conduct a study that focused on RDA performance.

Obar (2017) determine the effect of HRD on competencies, recruitment, employee retention and Corporate Image. The study employed descriptive research design both primary and secondary data were used. The primary data was obtained through a structured questionnaire administered to 50 respondents out of a population of 300 employees, ten from the top management, twenty from the middle level managers, and the other twenty from lower cadre. Secondary data was based on the available Government documents, reviewing the literature of HRD, HRM and research reports. The findings established that the availability of recruitment process and other factors as experience, academic qualification and aptitude tests makes the process more transparent and effective, on competencies the findings indicated that there is definitely an increase in individual and organisational performance if core, managerial and functional competencies are enhanced through HRD programs. The study did not indicate how sample size of 50 was arrived at. The study did not use inferential statistics. The study used corporate image as dependent variable. The current study used organizational performance as dependent variable and inferential statistics utilized to test the null hypotheses.

Tumwine, Nasiima and Kamukama (2014) sought to establish the elements of human capital that are influential in steering the performance. A valid research instrument was utilized to conduct a survey on 359 and 897 respondents that are representative of 397 and 1,087 respondents. Correlation and regression analysis were conducted to ascertain the validity of the hypotheses. It was established that human capital elements (employee educational level, experience and motivation) are associated with performance. Furthermore, human capital as a whole accounts for 55.9 percent of the variation in performance. The sampling procedure was not clear as the study failed to indicate the sampling frame. Further, the study was conducted in manufacturing sectors which is largely private owned and therefore, the findings cannot be generalized to the public sector. The current study targeted state corporations in Kenya focusing on the management cadre of six regional development authorities in Uganda.

Samad (2013) presents a research finding on the relationship between human resources and business performance. Data in this study was collected from a sample of 390 managerial staff in Malaysian logistics companies based on stratified random sampling. The obtained data were analysed using SPSS Version 20. The study found that human capital aspects are related to business performance. The study revealed that all aspects of human capital contributed significantly to business performance. The findings indicated that human capital aspects of employees' competency and creativity emerged as the main factor that influenced business performance. This implies that competency and creativity have significantly enhanced the business performance in Malaysian logistics companies. Unlike private sector, public sector is not interested in business performance but non-financial performance metric such as citizen satisfaction and project performance. Further, the study was limited Malaysian logistics companies and therefore, there is need to carry out this study so as to compare and contrast the findings.

Tessema (2014) sought to establish the relationship between human resource components and firm performance of the leather footwear companies in Ethiopia. A survey research design was adopted. From this exercise, a total of 322 Small Scale Footwear sector were identified in the study site as registered in the MSEs. From the sampling frame, simple random sampling procedures were used to select the study sample. Following the seminal sample size determination formula produced by Krejcie and Morgan (1970), this study's sample size is 175 enterprises. Estimation results using a regression model indicates that having human capital investment in company lead to the improved Company Performance. Even though the study came to a conclusion and human resource components affects firm performance, none of the human resource components were highlighted in the findings. The current study used talent management, competence, skills and experience for human resources components.

#### **2.4.4 Organizational Resources and Firm Performance**

Organizational resources influence on firm performance originated with the works Gibbons and Roberts (2014) of and other early scholars. These scholars theorized that organizational resources are a primary source for firm performance. However, at one time, strategic management was concerned largely with understanding characteristics of the industry in which the firm competed and in light of those characteristics, determining how the firm should be positioned relative to competitors. The emphasis on industry characteristics underestimated the role of the firms' resources in its performance (Othman et al., 2015). It was not until organizational performance could not be fully explained by the external side of organizations that the swing of the pendulum occurred back to the internal side (Tokuda, 2015). Resources possessed by an organization are the main sources of competitive advantage, growth and overall performance. They are the foundations of

competitive advantage (Hitt et al, 2016). Resources can be broadly classified as tangible, intangible and human. But, on their own, few resources are productive. It is never resources that are inputs in the productive processes in exclusion but the services that resources render (Walter & Vincent, 2018).

Capabilities are the abilities of combining the other resources for superior performance (Pearce et al, 2012). From time to time resources must be configured, reconfigured, coevolved, coordinated and reorganized for proper exploitation thus leading to superior performance as well as competitive advantage. Firms unable to creatively bundle and leverage their resources in ways that create value for their customers suffer performance declines (Hitt et al, 2016). Capabilities assure sustainable competitive advantage and indeed long term performance because new resource configurations are always guaranteed as markets collide, emerge, split, evolve and die (Arndt & Bach, 2015).

Differences in performance of organizations may emanate from how differently organizations combine their resources. Newbert (2018) argues that even if a company possesses resources that have the potential to create competitive advantage, the potential will not be realized if the company does not possess capabilities for resource exploitation. Conversely, Lu et al (2017) argues that, no matter how great firm capabilities might be, they do not generate economic profits if a firm fails to acquire the resources whose production would be enhanced by capabilities.

In some cases resource slack can lead to performance depending on how they are converted to active use, while in others they are a source of poor performance due to costs related to maintaining them (Tokuda, 2015). This notwithstanding, Shrader and Simon (2012) argue that that resource differences are unrelated to the performance. Critics of the resource based approach have argued that it is tautological and lacks empirical grounding.

However, in the recent past, several studies have been undertaken on the premise of the propositions of this theory. For instance Talaja (2012) established that companies with more valuable and rare resources achieve higher levels of performance.

Erdil et al (2015) found that firms using most valuable core employees had higher performance. Crook et al (2017) in a meta-analysis established that human capital relates strongly with performance. Further, Newbert (2018) confirmed that value and rareness of resources are related to competitive advantage. Superior performance from resources can be attained with proper configurations, combinations, evolutions, development and synergy of the same. However, do top executives have discretion on utilization of organizational resources?

Wangrow, Schepker and Barker (2015) perceive managerial discretion to mean the latitude of action available to top executives, and the means of accounting for different levels of constraint facing different top management groups. Where discretion is low, the role of top management teams is limited yet where discretion is high, managers can significantly shape the organization, and this would be reflected in the outcomes (Ongore et al, 2015). Corporate governance structures may enhance or limit discretion hence the need to assess their impact on the relationship between resource and firm performance.

#### **2.4.5 The Moderating role of Corporate Governance on the Relationship between Organizational Resources and Performance**

Hamdan, Buallay & Alareeni (2017) examined the moderating role of corporate governance on the interaction between intellectual capital efficiency and financial, operational and market performance. The study used a pooled data of 171 firms listed on the Saudi Stock Exchange during the period from 2012 to 2014. Multiple regression approach was incorporated under fixed-effect method. The findings revealed that the

inclusion of corporate governance as a moderating variable has influenced positively the relationship between intellectual capital components and financial, operational and market performance. The influence of moderating variable was limited only to human resources (intellectual capital efficiency). The current study investigated moderation effect of corporate governance on performance and organizational resources which was limited to human resource but also financial and technological resources.

Hsu, Wang, Tsai & Lu (2012) explored the moderating and mediating roles of corporate governance on the relationship between Chief Executive Officer (CEO) duality and firm performance. The findings, based on a sample of 1,974 publicly listed firms in Taiwan, provide robust support for the mediating model. The effect of CEO duality on firm performance shrinks upon the addition of independent directors to the model. The results do not, however, support the moderating model. The study did not adequately consider the role of corporate governance in studying the association between chief executive officer duality and firm performance. The current study examined the moderating role of corporate governance under board structure and accountability on the influence of organizational resources on organizational performance.

Juma (2014) focused on the moderating influence of corporate governance on the relation between capital structure and firm value, of firms quoted at the Nairobi Stock Exchange (NSE). Cross-sectional descriptive survey design was used. The population comprised 33 quoted companies on the NSE. Both primary and secondary data were used for this study. This study employed basic ordinary least square (OLS) regression which is fairly standard in exploring relationships between two sets of variables such as firm value and leverage, firm value and ownership, and leverage and ownership. The study found that all the corporate governance devices have influence on the firm value and capital structure as

shown by the Tobin Q. The study failed to present both primary and secondary data as indicated in the methodology. The study limited itself to firms listed in NSE meaning that the findings were difficult to be generalized. The independent variable was capital structure. The current study used only primary data collected using questionnaire and interview schedule. The study used organizational resources as independent variables

Nurdin and Kasim (2017) focused on the investigation of moderating corporate governance and financial performance in relation dividend policy and its impact on the firm value in Indonesia Stock Exchange. This study used a survey with an explanatory approach method Moderated Regression Analysis (MRA) and 2 SLS with panel data. The method of estimation uses the Generalized Least Squares (GLS). This study uses secondary data manufacturing companies listed in Indonesia Stock Exchange, for the period of observation from 2006 until 2015. This study resulted in five empirical findings. First, a significant effect on the financial performance of dividend policy, second, corporate governance generally cannot moderate the relationship of financial performance and development policy dividends. Third, the financial performance of a significant effect on firm value, Fourth, corporate governance generally cannot moderate the relationship the firm value and the company's financial performance. Corporate governance was established to insignificant moderator besides firm value being was used as independent variable. The study relied on secondary data to arrive at its conclusion and the study limited itself to manufacturing companies listed in Indonesia Stock Exchange. The current study is designed either to support or dismiss the assertion of non-significant moderator of corporate governance. The study used organizational resources as independent variable. The study utilized primary data collected through semi-structured questionnaire.

Mwau, Muturi & Oloko (2017) investigated the influence of the growth strategies on the performance of firms in insurance industry in Kenya. The target population of the study was all the 5,188 insurance players in Kenya as on 2013. The study adopted a descriptive research design. A random stratified sampling was used to select 125 respondents. Data was collected using self-administered structured questionnaire as well as from the secondary sources. Study found that the growth strategies have positive influence on the performance of the insurance firms within the insurance industry in Kenya except the market development strategy. The moderating effect of the ownership structure was also noted to have a positive effect in the performance of the firm. The use of ownership structure, under corporate governance was not used as moderating variable in the analysis but it was treated as independent variable. Therefore, there was no conclusion on the effect on ownership structure on the relationship between growth strategies and performance. The study limited itself to insurance companies. Only ownership structure was used as a component of the corporate governance unlike current study which used board composition and accountability as measure of corporate governance. The study also reported on the moderating influence of corporate governance.

## **2.5 Summary of Gaps**

This chapter has presented theoretical, conceptual and empirical studies. Each of the subsections has been comprehensively examined so as to isolate research gaps which the current study intended to fill. Under theoretical literature, the study used three theories. These are resource based theory, dynamic capabilities theory and stewardship theory. The choice of theory is informed by study variables where by resource-based and dynamic capabilities are purposely selected for organizational resources and organization performance. These two theories have been used extensively by various authors and

therefore, they have attracted a lot of attention from scholar, practitioners and other authors in strategic management, development studies and other fields. Most studies have used RBT without highlighting one of the main criticisms, the static nature of resources. Organizations operate in changing environment and therefore, there is need for another theory to address this weakness. This was addressed by use of dynamic capabilities theory. Dynamic capabilities theory adds life to RBT therefore, making organizational resources to have influence on performance. The study also used one of the corporate governance theories. Even though there are various theories, the study purposely selected stewardship theory. Agency theory which has been extensively tries to explain corporate governance. Studies have utilized this theory indiscriminately regardless on the nature of study. The principle-agent relationship might be ideal, but the current study seeks to examine utilization of organizational resources to achieve superior performance, hence the need to use stewardship theory.

Under conceptual review, the study examined from concepts that were derived from study variables. In this study, the organizational resources included human, technology and financial resources. The study also reviewed the concepts of corporate governance and organization performance. Resources in organization have group into tangible and non-tangible (Ray, Barney, and Muhanna 2014). Other authors have indicated that resources include all assets, capabilities, organizational processes, firm attributes, information, knowledge (Wu & Chen, 2014). Though there is no consensus on what constitute organizational resources, from the conceptual gaps, few studies have examined financial resources, human resources and technological resource in relation to performance. Ongeti (2014) used human resources, tangible and intangible resource. Human resources can tangible resources, yet included both as measure of organizational resources. Gekenia (2015) used human capital and technological resources as organizational resources.

Ombaka, Machuki, Awino and Wainaina (2015) used physical and financial resources as tangible resources and reputation, culture, capabilities, knowledge and technological as intangible resources. The current study conceptualized organizational resources into human resources, financial resources and technological resources. These resources have the capabilities of both tangibility and intangibility hence need to examine them in respect to corporate governance.

Few empirical studies have been carried out to examine organizational resources, corporate governance and organization performance. Even though several studies have been conducted to examine various types of organizational resource and performance, the use of corporate governance underscores the need to conduct this study. Various studies such as Hamdan, Buallay and Alareeni (2017); Hsu, Wang, Tsai & Lu (2012); Juma (2014) as well as Nurdin and Kasim (2017) have used corporate governance as moderating and/or mediating variable in respect to performance. However, none of them have included organizational resources as independent variable. This leaves a significant empirical gap which this study seeks to address. On the other, there have been methodological flaws in some of the previous studies conducted to examine performance and organizational resources.

Further, there has been conflicting results on the relationship between organizational resources and performance. Even though studies have used different performance metric and resource types, some studies have established positive and significant relationship (give examples) other have shown negative relationship (give examples) while other non-significant relationship. This makes it difficult for the generalization of findings creating knowledge gap. The use of corporate governance as moderating variable has also yielded different outcome in relation to performance. This implies that corporate governance is

significant moderating variable. Therefore, its inclusion in the study variable as a third variable has also been recommended by various authors who have examined performance of state-owned corporations (Give examples). Therefore, by undertaking this study, the study was in position to add new knowledge on the relationship between the two variables (Organizational resources and corporate governance) therefore, fill conceptual, theoretical and contextual as well as empirical gaps. Summary of knowledge gaps is as shown in Table 2.1

**Table 2. 2: Summary of Research Gaps**

<b>Researcher(s)</b>	<b>Focus of Study</b>	<b>Methodology</b>	<b>Findings</b>	<b>Knowledge Gaps</b>	<b>How Current Study were address the Gaps</b>
Kimani (2015)	Determine the level of use of information technology and its relationship with organizational performance at PS Kenya.	Descriptive survey, Primary Data, Semi-structured questionnaire, 438 PS staff	There was a positive relationship between the level of IT use and organizational performance	State Corporations were not sampled. The role of corporate governance in resource-performance relationship was not the focus of this study. The study also assed the level of IT use	The current study included third variable as a moderating variable. The study also investigated appropriateness of technological resource on organizational performance
García-Sánchez, García-Morales and Martín-Rojas (2018)	Technological assets influence absorptive capacity and how absorptive capacity influences internal labour flexibility, organizational innovation and performance.	A quantitative study 160 European technology companies Structured questionnaires SEM	The results show that support for technology and improvement of technological skills and technological distinctive competencies promote improvement in organizational performance	The study used technological asset as a moderating variable The study was conducted in Europe	In this study, corporate governance was used as a moderating variable The study targeted regional development authorities in Kenya.
Abdi (2018)	effect of information Technology on performance of Dakawou Transport LTD	Descriptive research design 105 top management, middle level management and subordinate staff across the organization . Structured questionnaire	Information technology is a major contributor to organizational performance. Information technology offers organizations, competitive and effective communication	The study did not used inferential statistics to establish effect of IT on performance	The current study used inferential statistics such as Pearson correlation analysis and linear regression analysis to buttress effect of technological resources on performance
Mutuku(2018)	Effects of the strategic use of Information	Case study research design	substantial connection between the strategic use	The study was purely qualitative	The study adopted mixed methodology which allowed

	Technology (IT) on the performance of Machakos Huduma Centre.	Two managers, six staff members and four customers were interviewed	of Information Technology resources and the performance	The research adopted case study research design implying other study areas were excluded.	triangulation Descriptive survey design which informed the philosophical approach of the study and it will cover all RDAs in Kenya
Karimi Mazidi, Amini and Latifi (2014)	Impact of information technology capability on firm performance;	sample of 212 employees of the Technical and Vocational organization in Mashhad city quantitative data	Association between IT capability and Service process innovation with Employee-customer-profit chain and their leverage effect facilitate the organizations' movements	The study measured performance in term of employee customer profit chain. This was not explicitly quantified	The current study used effective and efficient execution of projects against allocated resources Achievement of goals and objectives in set timelines
Kihara (2017)	Technology influences the performance of manufacturing SMEs in Kenya	A mixed design Systematic random sampling	Technology was found to be significant and positive influence on the performance	The study targeted only SMEs The study failed to indicate which counties were sampled in Kenya	The study targeted RDAs from six regions in the country which are public utilities and are funded by the National Treasury.
Ahamed (2015)	Determinants of strategy implementation in service firms	Descriptive research design 60 employees Primary data was collected using a questionnaire	Financial resources had a weak positive correlation with strategy implementation	Strategy implementation was used as dependent variable	The current study used organizational performance as dependent variable and the effect of financial resources was sought
Odack(2015)	How organization resource can create and sustain a competitive advantage	Descriptive Design Target population was USIU students Questionnaires were used to collect primary data	Financial resources at USIU are key for sustainable competitive advantage of organizations	Competitive advantage was used as dependent variable The study did not explain sampling procedure	The current study used organizational performance as dependent variable. The study sampled management of RDAs
Sulaiman	Impact of financial	Factor analysis and	Financial resource	The study focused on	The current study used

(2016)	resources on firm performance.	multiple regression analysis	dimensions do not significantly influence firm performance	commercial based state entities Financial dimension were not stated	dimension of resource allocation, sources and disbursement to measure financial resource
Obonyo (2018)	Factors affecting the globalization of small and medium enterprises in Nairobi, in the information technology (IT) trade industry.	Descriptive research design Stratified random sampling t Questionnaire	Financial resources had positive significant correlation with globalization of SMEs	Globalization was used as dependent variable The study did not use inferential statistics	The current study used organizational performance as dependent variable in relation to financial resources
Ager, Rukangu and Njati (2015)	how financial resource influences successful implementation of strategic plans in the Ministry of land, Housing and Urban Development	Descriptive research design 53 management staff	There was a significant relationship between financial resources and successful implementation of strategic plan.	Implementation of strategic plan was used as dependent variable	The current study used organizational performance as dependent variable and how it is influenced by financial resources of RDAs
Widarni (2015)	Influence of Human Capital Elements on Performance: Evidence from West Java SMEs	250 SME and 897 respondents Correlation and regression analysis	established that human capital elements are associated with performance	The study concentrated on human capital in Java	Besides human capital, the study also examined other aspects of human resource such as competence, talent management
Obar(2017)	Effect of HRD on competencies, recruitment, employee retention and Corporate Image	Descriptive research design Structured questionnaire 50 respondents out of a population of 300	There is definitely an increase in individual and organisational performance if core, managerial and functional competencies are enhanced	The study did not indicate how sample size of 50 was arrived at The study did not use inferential statistics The study used corporate image as dependent variable	The current study used organizational performance as dependent variable The study adopted inferential statistics which included regression and correlation analysis to investigate relation between variables
Tumwine, Nasiima and	Elements of human capital that is influential in	Descriptive Survey design	Human capital influence performance Uganda's	The study area was manufacturing	The current study targeted state corporations in Kenya

Kamukama (2014)	steering the performance of medium and large manufacturing firms (MLMC).	256 Medium firms and 103 large manufacturing companies Correlation and regression analysis	MLMCs.	companies in Uganda. Human capital conceptualization was inadequate	Human resources was conceptualized as competence, knowledge, skills and experience
Samad (2013)	Relationship between human resources and business performance.	390 managerial staff Stratified random sampling	The study found that human capital aspects are related to business performance.	The study focused on business performance The study was limited Malaysian logistics companies	The current study focused on organizational performance The current study targeted state corporations in Kenya
Tessema (2014)	Relationship between human capital components and firm performance of the leather footwear manufacturing SMEs in Ethiopia	survey research design 175 enterprises. Regression results	Having human capital investment in company lead to the improved Company Performance	None of the human resource components were highlighted in the findings	The current study used talent management, competence, skills and experience for human resources
Hamdan, Buallay & Alareeni (2017)	Moderating role of corporate governance on the interaction between intellectual capital efficiency and financial, operational and market performance	171 firms listed on the Saudi Stock Exchange Multiple regression	Corporate governance as a moderating variable has influenced positively the relationship between intellectual capital components and performance	Influence of moderating variable was limited only to human resources (intellectual capital efficiency)	The current study investigated moderation effect of corporate governance on relationship between human resource, financial resource, technological resources and performance.
Hsu, Wang, Tsai & Lu (2012)	Moderating and mediating roles of corporate governance on the relationship between Chief Executive Officer duality and firm performance.	1,974 publicly listed firms in Taiwan	The results did not support the moderating model.	The study did not adequately consider the role of corporate governance in studying the association between Chief Executive Officer duality and firm performance.	The current study examined the moderating role of corporate governance under board structure and ownership structure

Juma (2014)	Moderating influence of corporate governance on the relation between capital structure and firm value, of firms quoted at the Nairobi Stock Exchange (NSE).	Cross-sectional descriptive survey design 33 quoted companies on the NSE from year 2005 to 2009 Both primary and secondary data	All the corporate governance devices have influence on the firm value and capital structure as shown by the Tobin	The study failed to present both primary and secondary data The study limited itself to firms listed in NSE The independent variable was capital structure	The current study used only primary data The study used organizational resources as independent variables
Muturi, Mwau & Oloko (2017)	Influence of the growth strategies on the performance of firms in insurance industry in Kenya	188 insurance players in Kenya Descriptive research design A random stratified sampling Self-administered structured questionnaire	The moderating effect of the ownership structure was noted to have a positive effect in the performance of the firm.	The study limited itself to insurance companies Only ownership structure was used	The study also used board structure besides ownership structure. This constructs were used to measure corporate governance.
Nurdin and Kasim (2017)	Investigation of moderating corporate governance and financial performance in relation dividend policy and its impact on the firm value in Indonesia Stock Exchange.	Survey with an explanatory approach method Secondary data Moderated Regression Analysis (MRA)	Corporate governance generally cannot moderate the relationship the firm value and the company's financial performance	Firm value was used as independent variable The study relied on secondary data The limited itself to manufacturing companies listed in Indonesia Stock Exchange,	The study used organizational resources as independent variable The study utilized primary data collected through semi-structured questionnaire.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter discussed the research design, target population, the data collection method, data collection instruments and the analysis method that was used in the study.

#### 3.2 Research Philosophy

According to Suri (2011), research philosophy is the prototype that has the capability of reinforcing a research. A research philosophy relate to belief on how phenomenon is gathered, analysed and used. It is linked to epistemology which is relationship between the researcher and what is known to be true, and ontology referring to what is believed to be true. According to Creswell and Poth (2017), what governs the selection of a relevant paradigm and methods are the research problems and research questions. Based on the understanding of the research paradigms and associated philosophical beliefs and assumptions, the justifications of the research paradigm adopted for this research are discussed below.

The research philosophy that was adopted for this research is that pursued by positivists who believe reality is stable and hence can be observed from an objective viewpoint positivists argue that a phenomena can be isolated and observations can be duplicated. This involves manipulation of reality with variations in independent variable in order to identify regularities and form relationships between constituent elements of the social world (Schwandt, 2014). Positivists' researchers assume a controlled approach in conducting research by identifying a research topic, research hypotheses and a suitable

methodology. Positivism enables one to apply statistical techniques in testing hypotheses to analyse research data collected using quantitative research techniques.

The nature of the investigation is experimental that requires deductive logic rather than inductive reasoning. The research was aimed at examining theories on organizational resources, corporate governance and performance of RDA using scientific models to discover the logical order of these patterns. This research was value-free, relying on scientific and structured methodological procedures to ensure the findings in examining the organizational resources; corporate governance and performance are free from subjective bias. Providing insight into deductive logic, the hypothetical model built aims to explain the effect of organizational resources and corporate governance on RDAs performance rather than understand the phenomenon. The rationale for choosing the quantitative research method was twofold. First, the method allowed for exploration of relationships between variables through the testing of hypotheses (Koch, 2013). Four hypotheses were identified for the research. Each hypothesis sought to determine whether a relationship existed between the independent and dependent variables. Regression analysis was used for this purpose. Findings from the evaluation was not identify causation or why a relationship is or is not present. Findings was used to accept or not the research hypotheses.

### **3.3 Research Design**

A research design is the program that guides the investigation of the research in collection, analysis and interpretation of observations made (Cresswell, 2014). It is a logical model of proof that allows inferences to be drawn concerning causal effect relations between the variables under investigation. It also defines the domain of generalization to a larger population or to different situation, (Mitchell & Jolley, 2012). Research design can also be

thought of as the structure of research. It is the glue that holds all of the elements in a research project.

The study adopted explanatory research design which explores cause effect relationships. The explanatory research design also allows for systematic collection of data in standardized form from an identifiable population or representative (Baskerville & Pries-Heje, 2014). Creswell and Creswell (2017) states that explanatory is used to refer to a research in which the researcher, rather than creating the treatment, examines the effect of a naturally occurring treatment after it has occurred. In other words, it is a study that attempts to discover the pre-existing causal conditions between groups. The main aim of explanatory research is to identify any causal links between the factors or variables that pertain to the research problem. On the other hand, it tries to verify formulated hypotheses that refer to the present situation in order to elucidate it (Bowen, Rose & Pilkington, 2017).

The design was appropriate for determining in quantitative terms the existence of degree of relationship between the organizational resource, corporate governance and performance of RDAs. The suitability of this design was justified by the fact that it was able to determine the relationship the three variables used in this study. Studies that engage in hypotheses testing usually explain the nature of certain relationships, or establish the differences among groups or the independence of two or more factors in a situation (Benitez, Henseler, Castillo & Schuberth, 2020). An explanatory research design was fitting for this study because it helped in ascertaining not only the relationship between the different variables, but measure the effect and strength of each independent variable on the dependent variable which in this case is the performance of RDAs.

### 3.4 Study Area

The study was carried out in six regional development authorities that cover all 47 counties in Kenya. At 580,367 square kilometres (224,081 sq mi), Kenya is the world's 48th largest country by total area. With a population of more than 52.2 million people, Kenya is the 27th most populous country. It lies between latitudes 5°N and 5°S, and longitudes 34° and 42°E.

The regional development authorities include 1) Kerio Valley Development Authority which is headquartered at Eldoret, Uasin Gishu County. It covers Baringo, Turkana, and Parts of West Pokot, Elgeyo Marakwet, Nakuru, and Samburu. 2) Ewaso Ngiro South Development Authority is headquartered at Narok, Narok County. It covers Narok, Kajiado, Nakuru and parts of Nyandarua. 3) Ewaso Ngiro North Development Authority is headquartered at Isiolo, Isiolo County. It covers Isiolo, Wajir, Marsabit, Mandera, Laikipia, Nyandarua, Samburu, Meru, parts of Nyeri and Garissa. 4) Coast Development Authority is headquartered at Mombasa, Mombasa County. It covers Kwale, Mombasa, Kilifi, Taita Taveta, Lamu, Tana River, Exclusive Economic Zone, and parts of Ijara in Garissa County. 5) Lake Basin Development Authority is headquartered at Kisumu, Kisumu County. It covers Bomet, Bungoma, Busia, Homa Bay, Kakamega, Kericho, Kisii, Kisumu, Migori, Nandi, Nyamira, Siaya, Trans Nzoia, Vihiga, Uasin Gishu, Parts of West Pokot, Elgeyo Marakwet and Nakuru. 6) Tana and Athi Rivers Development Authority is headquartered at Nairobi, Nairobi County. It covers Kiambu, Nairobi, Machakos, Makueni, Kitui, Embu, Tharaka Nithi, Tana River, Kirinyaga, Kilifi, Murang'a, Nyeri, Meru, parts of Kajiado, Nyandarua, Isiolo, Garissa, Lamu and Taita Taveta (GoK, 2019).

According to the Acts that created them, the RDAs were constituted based on river basins and large water bodies to spur regional development through sustainable utilization and

conservation of natural resources. The Acts give the RDAs the mandate to reverse the disparities in development of the regions by acting as strategic drivers of regional socio-economic development through planning, developing and implementing as well as coordinating integrated basin based projects and programs such as provision of hydropower, water supplies for irrigation, domestic and industrial use, flood control, value addition and environmental conservation.

The justification of the study area is on the premise that regional development authorities recently have received sharp criticism on organizational resource and performance. The current mandates of RDAs as stipulated in their respective ACTS are very broad and in trying to implement these mandates, RDAs have become largely ineffective. There is however poor performance of state corporations and in particular RDAs which are faced with a number of constraints including weak institutional support, insufficient funding, poor salaries to staff; lack of autonomy, unclear policies on ownership of assets, poor governance, weak institutional capacities, overlaps and conflicting mandates with other agencies and inability to attract investments and funding due to lack policy framework. With limited resources in terms of funding coupled with the need for the organizations to be self-sustaining, RDAs have not been left out. There is need for them to optimize the resources allocated to them and this means that they must have sound corporate governance practices in place. Therefore, the study was interested in finding out the relationship between organizational resources, corporate governance and performance of RDAs.

### **3.5 Target population**

Zhao, Cai, Claggett and Wei (2013) defined target population as a collection of individual elements which may be finite or infinite. There are 6 regional development authorities in

Kenya (GoK, 2015). The target population was 169 managerial staff in the RDAs which was categorized into chief managers, manager, head of departments and chief accountants. The choice of these population units was informed by the roles they played in organizational resources acquisition and management as well as policies toward corporate governance. Chief managers in charge of Finance, Human Resource and Administration, Planning Research Business Development and Investment Promotion, internal audit, and Technical Services. Managers comprised of Administrative Services, Agriculture and Natural Resources, Business Development (Agri-Business), Human Resource, Information Communication Technology, Internal Audit, Public relation, livestock manager, regional manager, Fund raising/Mobilizing, Basin, R&D Manager, M&E Manager, planning, Engineering service, investment manager and project manager. The study also targeted head of departments/section and chief accountants. It was worth to note that there was difference in organizational structure of each RDA and therefore, difference in total target population. The distribution is as shown in Table 3.1

**Table 3. 1: Target Population**

<b>Strata</b>	<b>TARDA</b>	<b>LBDA</b>	<b>CBA</b>	<b>KVDA</b>	<b>ENSDA</b>	<b>ENNDA</b>	<b>TOTAL</b>
Chief managers	5	5	5	5	6	4	30
Managers	11	9	7	7	8	8	50
Heads of Departments	15	14	13	15	16	10	83
Chief Accountant	1	1	1	1	1	1	6
<b>Total</b>	<b>32</b>	<b>29</b>	<b>26</b>	<b>28</b>	<b>31</b>	<b>23</b>	<b>169</b>

**Source: Compilation from RDA Human Resource Department (2019)**

### 3.6 Sampling Technique and Sample Size

Taherdoost (2016) underscores the importance of selecting a representative sample through making a sampling frame. From the population frame the required number of subjects, respondents, elements or firms will be selected in order to make a sample. Stratified proportionate random sampling technique was used to select the sample. According to Etikan and Bala (2017), stratified proportionate random sampling technique produce estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population. Stratification aims to reduce standard error by providing some control over variance. The study grouped the respondents into four strata i.e. chief managers, managers, heads of departments and chief accountants.

From each stratum the study used simple random sampling to select 118 respondents from a target of 169. This in turn increases the precision of any estimation methods used. The study used Yamane (1973) formula to arrive at a sample of 118.

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

Where:

n is the desired sample size

N is the Target population

e is the standard error

When we substitute the values as per the formula

$$\frac{169}{1+0.05^2(169)} = 118.3098592$$

This translates to 118 respondents

The selection was as follows:

**Table 3. 2: Sample Size**

<b>RDA</b>	<b>TARDA</b>	<b>LBDA</b>	<b>CBA</b>	<b>KVDA</b>	<b>ENSDA</b>	<b>ENNDA</b>	<b>TOTAL</b>
Chief managers	3	3	3	3	4	3	19
Managers	8	6	5	5	6	4	34
Heads of Departments	10	10	9	11	11	8	59
Chief Accountant	1	1	1	1	1	1	6
Total	22	20	18	20	22	16	118

**Source: Author Computation (2019)**

### **3.7 Data collection Instruments and Procedures**

#### **3.7.1 Types and Sources of Data**

Data are defined as facts or information, especially when examined and used to find out things or to make decisions (Etikan & Bala, 2017)). Data are classified as either primary or secondary. In the process of carrying out this study, the data used was collected from two major sources. These sources included primary and secondary ones. Primary data are those collected afresh and for the first time and thus happen to be original (Kothari, 2007). The primary sources of data that was used for the analysis of the study was collected from the

respondents through the questionnaire and interview schedule designed by the researcher himself.

### **3.7.2 Instrumentation**

The study utilized primary data collected using questionnaire and interviews. A written questionnaire is a data collection tool in which written questions are presented that are to be answered by the respondents in written form. Questionnaires was chosen because they can be self-administered or administered through assistance. A semi- structured questionnaire (see Appendix 1) was used to collect data from top management consisting of Managing Directors, Heads of Departments and project managers. In order to ensure uniformity in response and to encourage participation, the questionnaire was kept short and structured with mostly multiple-choice selections in a Likert Scale. The questionnaires was preferred in this study because respondents of the study are literate and quite able to answer questions asked adequately. According to Johnston (2014), questionnaires are commonly used to obtain important information about a population under study. The questionnaire was divided into four sections, section one collected demographic information, section two collected organizational resources, section three collected corporate governance information and section four collected information on organization performance (See Appendix I).

Yow (2014) defines interview guide as a form of data collection in which questions are asked orally and subjects' responses recorded either verbatim or summarized. He adds that interviews may be in structured, semi-structured and unstructured form. However, the presence of an interviewer may influence the responses and reports of events may be less complete than information gained through observation. This study also employed unstructured questions (see Appendix II).

The interviews was administered purposively to the managing directors and the CEO from of RDAs. These interviews helped in probing for more meanings about the respondents' answers. Audio recorders also was used during the interviews.

### **3.7.3 Data Collection procedures**

In this study, quantitative data was collected using a self-administered questionnaire. The researcher informed the respondents that the instruments being administered was used for research purposes only and the responses from the respondents were kept secret and confidential. The researcher obtained an introductory letter from the University to collect data from the sampled respondents. The study sought services of trained six research assistants to aid in data collection. The research assistants were trained on itinerary, inspection of data entered, sorting, collation of data and record management. The research assistants delivered the questionnaires to the respondents to have them filled and then collect them later using drop and pick method. The research assistant supervised the process of data collection to ensure all items are responded to. The questionnaires was kept separately according to regional development authority

### **3.8 Pilot Study**

Pilot study was done to ascertain the validity of the research instruments. According to Dikko (2016), a pilot study enabled the researcher to determine the validity and reliability of the instruments. Pilot study was conducted in one of the state corporations, Kenya National Highway Authority (KenHA). The KenHA is an autonomous road agency, tasked with the management, development and safeguarding of all the national roads. The choice of KenHA is informed by the number of projects undertaken countrywide. The study used 10 participants for pilot study from Kenya National Highway Authority. This is according to Hazzi and Maldaon (2015) who suggested 10 – 30 participants is ideal in

pilot study. The pilot study respondents were eliminated in the final study respondents. The pilot test helped the researcher to identify poorly constructed questions in the questionnaire, removes ambiguities, simplify the questions and further develop questions for easier coding.

### **3.8.1 Validity of Research Instrument**

Validity refers to the degree that an instrument actually measures what it is designed or intended to measure (Bolliger and Inam, 2012). Validity refers to how well a concept, idea, or behaviour that is a construct has been translated or transformed into a functioning and operating reality (Aila & Ombok, 2015). Drost (2011) suggests that there are four types of validity that researchers should consider. These include statistical conclusion validity, internal validity, construct validity, and external validity. Statistical conclusion validity refers to inferences about whether it is reasonable to presume co variation given a specified alpha level and the obtained variances. Internal validity communicates the validity of the research itself. External validity of a study implies generalizing to other persons, settings, and times and not necessarily to the target population. Construct validity exists when a measure reliably measures and truthfully represents a unique concept. Two main type of construct validity is convergent and discriminant validity. The basic difference between convergent and discriminant validity is that convergent validity tests whether constructs that should be related, are related. Discriminant validity tests whether believed unrelated constructs are, in fact, unrelated.

This study assessed validity of the study instrument using construct validity and content validity. Content validity was used as a measure of the degree to which the data collected using the questionnaire represents the objectives of the study. Care was taken in designing research instrument to ensure that they measure and collect that data it is meant to collect.

Expert judgment of content was employed using supervisors and other experts from the school of Business and Economics, Masinde Muliro University of Science and Technology. Construct validity which seeks to measure whether an instrument accurately measures the study phenomena was tested using factor analysis then confirmatory factor analysis to verify the construct validity, this is recommended for large sample techniques ( $n > 50$ ) (Aila & Ombok, 2015).

This study also tested convergent validity using Average Variance Extracted (AVE). According to Ab Hamid, Sami and Sidek (2017) the threshold value of AVE should be greater than 0.5 for the constructs to be justifiable. Discriminant validity tests whether one concept is different from other closely related concepts in a research instrument. This study followed Ahmad, Zulkurnain and Khairushalimi (2016) methods of assessing discriminant validity namely; cross loading. Assessing discriminant validity based on cross loading requires that loadings of indicators be higher on their respective constructs as compared to other constructs while Henseler, Ringle and Sarstedt (2015) criterion is based on comparing the square root of AVE to construct correlations.

### **3.8.2 Reliability of Research Instrument**

Golafshani (2013) explain that reliability is a measure of degree to which a research instrument yields consistent results or data after accepted trials. Reliability of measurements concern the degree to which a particular procedure gives similar results over a number of repeated trials. The researcher administered the questionnaire to the pilot sample and then scores the questions.

To measure the reliability, Cronbach Alpha technique was employed. Cronbach alpha coefficient was estimated from the response using statistical package for social scientist (SPSS). In this approach, a score obtained in one item was correlated with scores obtained

from other items in the instrument; Cronbach's Alpha was then computed to determine how items correlate among themselves. According to Ahmad, Yussiff & Mustapha (2015), Cronbach's alpha of  $\alpha \geq 0.9$  is excellent,  $0.7 \leq \alpha < 0.9$  is good,  $0.6 \leq \alpha < 0.7$  is acceptable,  $0.5 \leq \alpha < 0.6$  is poor, and  $\alpha < 0.5$  is unacceptable. A large value of alpha (preferably greater than 0.7) indicated a high level of consistence of the instruments in measuring the variables which this study adopted.

### **3.9 Data Analysis and Presentation Techniques**

Data analysis is a process of inspecting, cleaning, transforming, and modelling data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making (Bhatta, 2013). The data collected in this study was firstly grouped, tabulated and classified. The data was edited by examining the collected raw data to detect errors and omissions and correct them. This included a careful scrutiny of the completed questionnaires. Data was then coded by assigning numerical to answers so that responses can be put into a limited number of categories or classes. SPSS software version 22 was used for statistical analysis. The data was presented in form of tables, models and charts. The data analysis was done per the objectives.

#### **3.9.1 Descriptive statistics**

The descriptive statistics was mainly used to show the trend of the primary data. The researcher used descriptive statistics that include measure of central tendency; mean and measure of variability; standard deviation, maximum and minimum. These descriptive statistics was used to develop indices and measures to summarize the collected data. Mean is a measure of central tendency used to describe the most typical value in a set of values. Standard deviation shows how far the distribution is from the mean. Minimum and

maximum was used to show the range of dataset (Deshpande, Gogtayv& Thatte, 2016). This data was presented in tables and charts.

### **3.9.2 Inferential statistics**

The study used inferential statistics such as correlation analysis and regression analysis to test null hypotheses. These statistical tests were at 5% significance level (Greenland, Senn, Poole & Altman, 2016). The study also conducted factor analysis to establish validity of the research instruments. This was done with aid of SPSS version 22.

#### **3.9.2.1 Factor analysis**

Factor analysis is a statistical method for conducting structural analyses of datasets. Large numbers of quantitative observations or responses can be resolved into “distinct patterns of occurrence” (O'Rourke & Hatcher, 2013). The patterns that are derived in a factor-analytic model are referred to as factors (Kline, 2013). Each factor explains a portion of the variance in such a way that the first factor explains the greatest percentage of the variance and each successive factor accounts for decreasing percentages of the variance. A factor score combines a person's responses to items associated with the factor and corresponding weights that represent the strength of associations between individual items and the factor.

In this study, factor analysis to was used to assess construct validity that seeks to measure whether items used to make up a construct actually measure the same study phenomena or not. Maskey, Fei and Nguyen (2018) recommend factors with factor loadings more than 0.40 are retained for further analysis while those with factor loadings less than 0.4 to be dropped in further analysis. Factor Analysis test of sampling adequacy and Sphericity was used. Kaiser-Meyer-Olkin (KMO) test of sampling adequacy was used to establish the

construct validity of study variables; this enabled the study to identify whether items are appropriate for further analysis. Bartlett's Test of Sphericity was used to analyse if the samples are from populations with equal variances in order to indicate the degree of sampling adequacy.

### **3.9.2.2 Correlation Analysis**

The Pearson Correlation Coefficient (Pearson  $r$ ) is used to examine the relationship between variables (Akoglu, 2018). Pearson  $r$  is a measure of the magnitude and direction of the linear relationship between two variables. The values of the correlation coefficient always range from -1 to +1. If it lies near to -1, it shows a strong negative correlation but if it lies near to +1 it shows a strong positive correlation (Rebekić, Lončarić, Petrović & Marić, 2015). If the coefficient is equal to zero, then it implies that there is no correlation between the variables. According to Daoud (2017), correlation should not go beyond 0.9 to avoid multi-collinearity among independent variables. According to Kariuki, Namusonge and Orwa (2015), multi-collinearity occurs when two or more variables in the model are correlated and provide redundant information and therefore values of  $r$  greater than 0.9 was used as indicators of multi-collinearity problem in this study. This study used bi-variate correlational analysis to assess the strength and direction of the relationship between the variables. According to Ngumi *et al.* (2013), when significance level is very small (less than 0.05) then the correlation is significant and the two variables are linearly related and if the significance level is relatively large, for example, 0.50 or more, then the correlation is not significant and the two variables are not linearly related.

### 3.9.2.3 Multiple Regression Analysis

Regression analysis is a constructive statistical technique that can be used to analyse the associations between a set of independent variables and a single dependent variable (Daoud, 2017). According to Jackson (2009) as cited by Kariuki *et al.* (2015), multiple regression analysis involves combining several predictor variables in a single regression equation. In this study, Multiple Regression analysis was used to examine how changes in the independent variables influenced changes in the dependent variable. Regression model fitness was estimated using coefficient of determination which helps explain how closely the predictor variable explains the variations in the dependent variable. B statistic value was used to test the significance of each individual predictor and the P value was used to make conclusion on whether to reject or accept the null hypotheses. The level of significance of 5% was used as a benchmark. If the P value is less than 0.05 at 5% significance level, reject the null hypotheses and accept the alternative and vice versa (Greenland *et al.*, 2016).). The study applied both Standard Multiple Regression and Hierarchical Multiple Regression models.

**Standard Multiple Regression model** was used to measure the influence of organizational resources on performance of RDAs. This included simple linear regression and multiple linear regressions. Simple linear regression was used for individual organizational resources while multiple linear regression for all organizational resources as a block. To determine relationship between organizational resources on the performance of RDAs, the study relied on the R square, F ration and the significance level. The four models are as shown in Table 3.3.

**Hierarchical Multiple Regression Technique** was used to determine the moderating effect of corporate governance on the relationship between the organizational resources

and performance. Moderating effect exists if the interaction effect is significant in the model. For each moderating variable, three step analyses was conducted to arrive to a conclusion. In the first step, Organizational resources was added in the model, in the second step, the moderating variable was added and in the last step, the interactions effect was added. The study was interested in finding the change in F, change in R square and the significance level. The three models are as shown in Table 3.3.

### 3.9.3 Analytical model

In addition, a multivariate regression model was be applied to determine the relative importance of each of the variables with respect to performance. Multiple regressions is a flexible method of data analysis that may be appropriate whenever quantitative variables (the dependent) is to be examined in relationship to any other factors (expressed as independent or predictor variable). Relationships may be non-linear, independent variables may be quantitative or qualitative and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account, (Cohen, West & Aiken, 2013). The regression model was as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Organizational performance

$\alpha$  = Determines the level of fitted lines

$\beta_1, \beta_2$  and  $\beta_3$  = Slopes of  $X_1, X_2, X_3$

$X_1$ = Technological resources

$X_2$ = Financial resources

$X_3$ = Human resources

$\varepsilon$  = Error term

The moderation effect was measured using hierarchical regression analysis and the models was in the form of

$$Y = \alpha + \beta_1 X_1 Z + \beta_2 X_2 Z + \beta_3 X_3 Z + \varepsilon$$

Where:

Y = Organizational performance

Z = Corporate Governance

$\alpha$  = Determines the level of fitted lines

$\beta_1, \beta_2$  and  $\beta_3$  = Slopes of  $X_1 Z, X_2 Z, X_3 Z$

$X_1 Z$  = Technological resources interaction Corporate Governance

$X_2 Z$  = Financial resources interaction Corporate Governance

$X_3 Z$  = Human resources interaction Corporate Governance

$\varepsilon$  = Error term

### 3.9.4 Diagnostic Tests

Prior to conducting inferential statistics, diagnostic analyses was performed to test the assumption of Pearson correlation and multiple regression analyses. This included normality test by use of Shapiro-Wilk test, Auto-correlation by use Durbin Watson, Multi Collinearity test by use VIF & Tolerance, linearity test by use ANOVA and Homogeneity by use Levene test.

**Multi-collinearity:** Multi-collinearity refers to the relationship among the independent variables. Multi-collinearity exists when the independent variables are highly correlated ( $r = 0.9$  and above). Multiple regressions are very sensitive on this. Bryman and Cramer (2014) suggest that you ‘think carefully before including two variables with a bi-variate correlation of, say, 0.7 or more in the same analysis. The presence of multicollinearity makes it difficult to isolate the impact of each independent variable on the dependent

variable and also standard errors for each independent variable become inflated (Yoo et al., 2014). Multi-collinearity can be corrected by excluding one or more of the corrected by excluding one or more of the correlated independent variable from the regression model (Cai, Wu, Xu & Zeng, 2017). To check for multi-collinearity Variance inflation Factor and Tolerance level were used. A VIF of less than 10 or a tolerance level of greater than 0.1 is acceptable

### **Normality:**

Most of the parametric tests require that the assumption of normality be met. Normality means that the distribution of the test is normally distributed (or bell-shaped) with 0 mean, with 1 standard deviation and a symmetric bell shaped curve (Garson, 2012). To test the assumption of normality, the following measures and tests were applied:

Skewness and Kurtosis: To test the assumption of normal distribution, Skewness should be within the range  $\pm 2$ . Kurtosis values should be within range of  $\pm 7$ .

Kolmogorov-Smirnov test: In the case of a large sample, the researchers used K-S test to test the assumption of normality. This test should not be significant to meet the assumption of normality. For normality, the residuals should be normally distributed about the predicted dependent variable scores.

### **Linearity**

Linear regression needs the relationship between the independent and dependent variables to be linear. It is also important to check for outliers since linear regression is sensitive to outlier effects. The linearity assumption can best be tested with scatter plots and Pearson Correlation Analysis (Chatterjee & Hadi, 2015).

**Homoscedasticity:** The assumption of homoscedasticity is essential to linear regression models. Homoscedasticity explains a situation where the error term is the same across all of the independent variables' values. On the other hand, heteroscedasticity appears when the size of the error term is different across all of the independent variables' values. The effect of violating the assumption of homoscedasticity is a matter of degree, increasing as heteroscedasticity increases (Gelfand, 2015). In regression analysis, heteroscedasticity means a condition in which the variance of dependent variable varies across the data. On the other hand homoscedasticity means a situation which the variance of the dependent variable is the same for all the data.

According to Khan, Shamim and Goyal (2018), homoscedasticity describes the consistency of variance of the error term ( $e$ , residual) at different levels of the predictor variable. Hausman, Woutersen and Swanson (2012) explain homoscedasticity in terms of the standard error estimate (of the regression line). The standard error of estimate is an index of the variance of measured values around each predicted value. The homoscedasticity assumption more formally stated as  $VAR(e_j) = c$  that is, the variance of the error of residual term of each point  $j$  is equal to the variance for all residuals. The Gauss-Markov theorem states that when all the methodological assumptions are met, the least squares estimator regression parameters are unbiased and efficient, that is, the least square estimators said to be BLUE: Best linear Unbiased Estimators (Xu, Xiong, Huang & Yao, 2014).

**Independence:** Linear regression analysis requires that there is little or no autocorrelation in the data. Autocorrelation occurs when the residuals are not independent from each other. Source of autocorrelation is the effect of deletion of some variables. In regression modelling, it is not possible to include all the variables in the model. There can be various

reasons for this, e.g., some variable may be qualitative, sometimes direct observations may not be available on the variable etc. The joint effect of such deleted variables gives rise to autocorrelation in the data (Granato, de Araújo Calado & Jarvis, 2014).

The difference between the observed and true values of variable is called measurement error or errors-in-variable. The presence of measurement errors on the dependent variable may also introduce the autocorrelation in the data. Application of OLS fails in case of autocorrelation in the data and leads to serious consequences as overly optimistic view from narrow confidence interval, usual t-ratio and F-ratio tests provide misleading results and prediction may have large variances. Test of independence was done by the use of Durbin-Watson. It tests that the residuals from a linear regression or multiple regression are independent. When Durbin-Watson factors are between (1.5) and (2.5) there is no autocorrelation problem (Malau, 2018).

### **3.9.5 Qualitative data analysis**

According to Elliott(2018) a qualitative data analyst should seek to describe their textual data in ways that capture the setting or people who produced this text on their own terms rather than in terms of predefined measures and hypotheses. This was further emphasized by Edwards-Jones (2014). Qualitative data that was collected through interviews was transcribed, and the output was organized into various categories that was theme based. An in-depth analysis was carried out and findings was presented in form of narrations and verbatim quotations. In order to maintain the setting where the data was to be collected or produced, the researcher treated qualitative data first by representing a setting with the participants' terms and from their own viewpoint; secondly, represented a setting with his terms and from respondents' viewpoint and thirdly the researcher ensured progressive focus where the he interacted with the data and gradually refined his focus where

necessary. Qualitative data was mostly applied in triangulation of the quantitative data as presented by the respondents to improve validity and reliability of all variables associated with organizational resources, performance and corporate governance.

### 3.9.6 Hypothesis testing

The four hypotheses was tested using the following framework:

**Table 3. 3: Hypothesis testing**

	Hypothesis Statement	Hypothesis Testing	Model
i	H <sub>01</sub> : Technological resources have no significant influence on the performance of regional development authorities in Kenya.	H <sub>01</sub> : $\beta_1 = 0$ H <sub>0A</sub> : $\beta_1 \neq 0$ Reject H <sub>01</sub> if $\beta_1 \neq 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>01</sub> if $\beta_1 = 0$ and P value $> \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_1 X_1 + \epsilon$
ii	H <sub>02</sub> : Financial resources have no significant influence on the regional development authorities in Kenya	H <sub>02</sub> : $\beta_2 = 0$ H <sub>0A</sub> : $\beta_2 \neq 0$ Reject H <sub>02</sub> if $\beta_2 \neq 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>02</sub> if $\beta_2 = 0$ and P value $> \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_2 X_2 + \epsilon$
iii	H <sub>03</sub> : Human resources have no significant influence on the performance of regional development authorities in Kenya	H <sub>03</sub> : $\beta_3 = 0$ H <sub>0A</sub> : $\beta_3 \neq 0$ Reject H <sub>02</sub> if $\beta_3 = 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>03</sub> if $\beta_3 = 0$ and P Value $> \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_3 X_3 + \epsilon$
iv	H <sub>04</sub> : Corporate governance has no significant moderating effect on the relationship between organizational resources and performance of regional development authorities in Kenya.	H <sub>04</sub> : $\beta_4 = 0$ H <sub>0A</sub> : $\beta_4 \neq 0$ Reject H <sub>04</sub> if $\beta_4 = 0$ and P value $\leq 0.05$ otherwise fail to reject H <sub>04</sub> if $\beta_4 = 0$ and P Value $> \alpha$ $\alpha = 0.05$	$Y = \beta_0 + \beta_1 X_1 Z + \beta_2 X_2 Z + \beta_3 X_3 Z + \epsilon$ If $X*Z$ has a p value $\leq 0.05$ , then there is a significant moderating effect. $\beta_i > 0$ signifies positive moderating effect

**Source: Author Computation (2019)**

### **3.10 Observation of Ethical Standards in the Study**

The research work was carried out in accordance with set ethical standards which are of utmost importance especially when human subjects are involved. These ethical considerations ensured that professionalism is upheld during research work.

The dignity and privacy of every individual participating in the research was protected. The sources of personal information obtained was kept confidential and respected. The consent of research subjects was obtained in advance. No individual became research subject unless he or she had been given prior notice requesting for his or her participation. No pressure or inducement of any kind was applied to encourage an individual to become a research subject. The relevant persons, authorities and committees was consulted and a research permit was obtained from NACOSTI. Before an individual becomes a research subject, he or she was notified of the aims, methods and benefits of the research.

All research work was consistent with the ethical standards of the respondents and intellectual property rights respected through strict acknowledgement of sources of information and their authors. Scientific dishonesty which includes plagiarism, fabrication and falsification, faulty data gathering procedures and misleading authorship was avoided at all cost. The research was conducted in a competent fashion, as an objective, scientific project without bias in design, data interpretation, data analysis and methodology.

## **CHAPTER FOUR**

### **DATA ANALYSIS, FINDINGS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter includes the presentation of the findings of the results obtained from the analysis of the data collected as well as discussions of these findings. The study analysed the data using quantitative and qualitative analysis, which was carried out for each variable to describe how it relates to the performance of Regional Development Authorities in Kenya. This analysis produced descriptive statistics that helped establish patterns and relationships, making it easier for the researcher to understand and interpret implications of the study results. SPSS was used to produce descriptive statistics which was used to derive conclusions and generalizations regarding the study population. Descriptive statistics including the frequencies, percentages, mean and standard deviation were used to interpret the features of the variables under study. The results obtained were presented using figures and tables. The chapter contents include; results on reliability and validity testing, analysis by response rate, analysis of background information, descriptive and inferential analyses of study variables as well diagnostic testing,

##### **4.1.1 Results on Reliability and Validity Testing**

The study tested the questionnaire for reliability and validity to ascertain that it would collect data accurately. Reliability was conducted to measure the degree to which research instruments would have yield consistent results (Kimberlin & Winterstein, 2008). The data was tested for reliability to establish issues such as data sources, methods of data collection, presence of any biasness and the level of accuracy. The test for reliability was able to establish the extent to which results was consistent over time. When testing for

reliability, the study used the internal consistency technique, to obtain Cronbach's Alpha ( $\alpha$ ). The threshold for the Cronbach's Alpha ( $\alpha$ ) is 0.7, such that when the Cronbach's Alpha ( $\alpha$ ) is greater than or equal to 0.7 the tool is consistent otherwise the tool is reviewed accordingly. The results obtained on reliability tested are captured in Table 4.1

**Table 4. 1: Reliability of Research Instruments**

Variable	Number of Items	Cronbach Alpha	Reliable
Technological Resources	7	0.750	Yes
Human Resources	9	0.763	Yes
Financial Resources	10	0.776	Yes
Board Composition (Practices)	10	0.739	Yes
Accountability (Principles)	5	0.715	Yes
Performance	7	0.804	Yes

**Source: Field Data (2019)**

From Table 4.1, the Cronbach alpha ranged from 0.715 for accountability to 0.804 for performance of RDA. Since the questionnaire consistency was way above 0.7, the questionnaire had high consistency between the items, where the internal consistency between the items of the tool was very high. Therefore, the tool was retained without any further editing.

Factor analysis is a statistical dimension reduction technique used to explore the underlying structure of a set of observed variables. There is a unidimensionality basic assumption of measurement theory that a set of items forming an instrument measuring one thing in common. To explore the relationships between a variable and another, the variable must be unidimensional; the various items underlying the data must measure the

same traits. Exploratory factor analysis identifies underlying factors and categorizes items that are closely related without considering any hypothesized priori model or theories. By this, a large number of variable items are collapsed into a few interpretable and manageable underlying factors (Leech, Barrett and Morgan, 2011). Table 4.2 shows a summary of the proportion of variances explained by the extracted components from EFA.

**Table 4. 2: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.816	10.034	10.034	4.816	10.034	10.034
2	4.427	9.223	19.257	4.427	9.223	19.257
3	3.566	7.429	26.686	3.566	7.429	26.686
4	2.789	5.810	32.496	2.789	5.810	32.496
5	2.502	5.213	37.709	2.502	5.213	37.709
6	2.351	4.897	42.606	2.351	4.897	42.606
7	2.103	4.382	46.988	2.103	4.382	46.988
8	1.887	3.932	50.920	1.887	3.932	50.920
9	1.618	3.372	54.292	1.618	3.372	54.292
10	1.497	3.118	57.410	1.497	3.118	57.410
11	1.459	3.041	60.451	1.459	3.041	60.451
12	1.375	2.865	63.316	1.375	2.865	63.316
13	1.166	2.429	65.745	1.166	2.429	65.745
14	1.119	2.332	68.077	1.119	2.332	68.077
15	1.086	2.262	70.339	1.086	2.262	70.339
16	1.042	2.171	72.510	1.042	2.171	72.510

Extraction Method: Principal Component Analysis.

**Source: Field Data (2019)**

There were 16 retained factors that had Eigen values greater than 1 which is an implication of possible extraction of 16 unidimensional latent variables from the items (Leech, Barrett

& Morgan, 2011). The sixteen retained factors explain up to 72.512% of the total variations from the items. From the initial extraction, the first component explained up to 10.034% of the total variance. Rotation was carried out which yielded results where all the 16 retained components explain up to 72.512% of total variance with the first component only explaining 10.034%.

Table 4.3 Shows the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity which were also used under exploratory factor analysis (EFA). The KMO is a measure that ranges from 0 to 1 and was used for the proportional variance in the observed items that could have been caused by their underlying factors. A KMO value that is very low is an indication of a likely inappropriateness of factor analysis as it shows likely diffusions in the patterns of correlations as the sum of partial correlation is large relative to the sum of correlations (Tavakol & Dennick, 2011).

**Table 4. 3: KMO and Bartlett's Test**

Test		Value
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.938
Bartlett's Test of Sphericity	Approx. Chi-Square	7196.994
	Df	435
	Sig.	0.000

**Source: Field Data (2019)**

The KMO value was found to be 0.938 which is a high figure that is close to 1 and acceptable. The Bartlett's test of sphericity is to test for a significant relationship among the observed indicators. A significant relationship is evident with the confirmation that the correlation matrix of the indicators is not an identity matrix which would be an indication of unrelated indicators (Pallant, 2010). For the Bartlett's test in this study, the Chi-square

statistic of the Bartlett's test was found to be 7196.994 with a p-value of 0.000. The p-value that is less than 0.05 is a confirmation at significance level of 0.05 that the correlation matrix of the indicators is not an identity matrix thus the indicators have an evident significance relationship as is expected for appropriate factor analysis.

Confirmatory Factor Analysis CFA is adopted considering its use in verification of factor structure of a set of observed variables. It is a verification technique of priori and hypothesised structures and relationships that are based on theoretical and empirical information. Under CFA, the observed variables are subjected factor analysis to verify that they belong to the latent variable that they are purported to belong to based on theoretical and empirical research. Under CFA, the observed items are expected to load the latent variable above 0.4 as indicated in Table 4.4.

The results of CFA were also used to confirm construct validity of the data collected as is required under SEM. Construct validity is confirmed by exploration of both convergent and discriminant validity. Convergent validity is a measure that confirms that the items that are meant to have relationships are actually related while discriminant validity gives a confirmation that items that are not meant to be related are actually not related. Convergent validity was measured by determining the average variances extracted (AVEs) from CFA. AVEs are measures of the total amount of variance that can be ascribed to the latent construct (Teo, 2011). The AVEs for all the constructs were found to be above 0.3 as regarded to be adequate for convergent validity (Teo, 2011). The exploration of discriminant validity involves the comparison of the AVEs and the squared multiple correlations. The data is said to exhibit discriminant validity if all the squared multiple correlations are less than the relative constructs AVE as was found in this study. These

results thus showed a confirmation of both convergent and discriminant validity thus a confirmation that the data collected and used had construct validity.

**Table 4. 4: Convergent and Discriminant Validity**

Item	Squared AVE	Multiple Correlation	Factor loadings					
			FR	TR	HR	BC	AC	PF
FR1	0.382	.365	0.600					
FR2		.310	0.523					
FR3		.297	0.612					
FR4		.120	0.730					
FR5		.324	0.510					
FR6		.141	0.540					
FR7		.174	0.541					
FR8		.315	0.657					
FR9		.307	0.623					
FR10		.324	0.783					
TR1	0.407	.250		.615				
TR2		.286		.645				
TR3		.334		.693				
TR4		.350		.718				
TR5		.120		.454				
TR6		.251		.600				
TR7		.301		.702				
HR1	0.388	.332			.625			
HR2		.289			.559			
HR3		.225			.581			
HR4		.376			.652			
HR5		.333			.677			
HR6		.320			.738			
HR7		.166			.603			
HR8		.361			.640			
HR9		.193			.508			
BC1	0.377	.324				.559		
BC2		.342				.626		
BC3		.364				.652		
BC4		.193				.427		
BC5		.185				.535		
BC6		.286				.620		
BC7		.168				.509		
BC8		.360				.745		
BC9		.296				.583		
BC10		.164				.512		
AC1	0.466	.266					.684	

AC2		.137		.556
AC3		.207		.754
AC4		.240		.673
AC5		.202		.732
PF1	0.446	.073		.759
PF2		.163		.727
PF3		.105		.599
PF4		.125		.703
PF5		.111		.712
PF6		.031		.609
PF7		.035		.534

**Source: Field Data (2019)**

#### **4.2 Response Rate**

The study administered 118 questionnaires to respondents of the six regional development authorities in Kenya out of which 102 responded. That is, the researcher was able to obtain data from 102 respondents (86.4%), which according to Champion and Sear (2009) is high. Champion and Sear (2009) indicate that a response rate of above 49% and not exceeding 59% is adequate, while response rate of above 59% and not exceeding 69 is good and a response rate above 69% is very high. Since the response rate of 86.4% was exceeding 69%, then it was rated as very high. The research considered such a response rate as adequate for producing accurate study results based on the target and sample populations. The high response rate was achieved due to appropriate technique of administration; drop and pick as well as the questionnaire were well structured after piloting which results to easy understanding hence high response rate.

#### **4.3 Analysis on Respondents Background Information**

The respondents were asked in the questionnaire to provide information based on their gender, age, level of academic qualifications attained, and the period in their current organization. The data obtained was analysed to produce results in Table 4.5.

**Table 4. 5: Demographic Data**

<b>Variable</b>	<b>Data Set</b>	<b>Frequency</b>	<b>Percent</b>
Age Bracket	25-34 years	2	2.0
	35-44 years	30	29.4
	45-54 years	59	57.8
	above 55years	11	10.8
	<b>Total</b>	<b>102</b>	<b>100.0</b>
Gender	Male	74	72.5
	Female	28	27.5
	<b>Total</b>	<b>102</b>	<b>100.0</b>
Level of Education	Diploma	0	0.0
	Bachelor's degree	64	62.7
	Master's Degree	34	33.3
	PhD	4	3.9
	<b>Total</b>	<b>102</b>	<b>100.0</b>
Duration	1-5 years	4	3.9
	6-10 years	65	63.7
	11-15 years	26	25.5
	Over 15years	7	6.9
	<b>Total</b>	<b>102</b>	<b>100</b>

**Source: Field Data (2019)**

The study found out that majority of the respondents 74(72.5%) were male compared to 28 (27.5%) who were female. It is evident that most of the persons in the management of RDAs are male and the third gender rule has not been achieved in the managerial level. Based on the presented data, the study established that 59(57.8%) of the respondents had age bracket of 45-54 years, 30 (29.4%) were between 35-44 years and 11 (10.8%) were over 55 years. On the other hand, only 2(2.0%) were between 25 and 34 years. These

findings indicated that most of the sampled respondents were between 25 and 54 years hence, they have the required experience in the management of organization's resources.

Thirdly, the study established that majority of the respondents, 64 (62.7%) had some bachelor's degree education level, 34(33.3%) had master degree and 5(3.9%) were having various PhDs. This finding showed that the respondents had requisite education level in the management of RDAs and therefore, they had a fair understanding on the organizational resources, corporate governance and performance of RDAs.

Concerning duration of service in the RDAs, the study established that 65 (63.7%) had been offering their service for between six and 10 years, 26 (25.5%) had been employees for the RDAs between 11-15 years, 7 (6.9%) had been employees for RDAs for over 15 years and 4 (3.9%) had been employee for the RDAs for between 1 and 5 years. This finding on duration of services rendered to the RDAs indicated that the respondents had spent long enough time to understand the dynamics of organizational resources, corporate governance and performance of RDA.

#### **4.4 Descriptive Statistics**

The study analysed the data using quantitative approach to produce descriptive statistics. These descriptive statistics were used to derive conclusions and generalizations regarding the relationship between the Independent Variables (IVs) and the Dependent Variable (DV). In its effort to establish the relationships, the study analyzed the data with respect to the objectives. Notably the respective questions were in line with the study objectives. The questions in the questionnaire were measured using the 5 point Likert Scale (1-5) where; strongly Disagree = 1; Disagree= 2; Neutral = Fairly Agree: Agree =4; Strongly Agree = 5.

During the analysis, the study obtained a mean (M) and a standard deviation (SD) for each observable items for specific latent variable. Using mean of means, the study thereafter obtained the mean for each IV and the DV. Considering that the means obtained were in form of fractions, the study moderated these based on the statistics in Table 4.6.

**Table 4. 6: Interpretation of Descriptive Statistics**

<b>Scale</b>	<b>Representing</b>	<b>Statistics</b>	<b>Interpretation</b>
1	Strongly Disagree	1.0-1.4	Strongly Disagree
2	Disagree	1.5-2.4	Disagree
3	Fairly Agree	2.5-3.44	Fairly Agree
4	Agree	3.5-4.4	Agree
5	Strongly Agree	4.5-5.0	Strongly Agree

**Source: Field Data (2019)**

Mean is a measure of central tendency used to describe the most typical value in a set of values. Standard error of mean is a measure of reliability of the study results. It is equal to the standard deviation of the population divided by the square root of the sample size calculated as:  $SE = (SD) \text{ (of the population) / square root (n)}$ . Standard deviation shows how far the distribution is from the mean. A small standard error implies that most of the sample means will be near the center population means; thus, the sample mean has a good chance of being close to the population mean and a good estimator of the population mean. For standard deviation, the cut was 0.9 implying that a standard deviation which is equals or more than is significant and therefore, there was dispersion in the response (Curran-Everett & Benos, 2014).

#### 4.4.1 Descriptive Statistics for Technological Resources

The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in relation to seven statements related technological resources. The results are as shown in Table 4.7.

**Table 4. 7: Descriptive Statistics for Technological Resources**

<b>Technological Resources</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
The organization has acquired relevant and adequate technologies for strategy implementation	3.225	.0736	.7434
The available technological resources are adequate for implementation of RDAs projects	3.245	.0853	.8610
There are adequate planning, systems, and training in place for managing technological resources	3.157	.0878	.8871
There is adequate skills and know-how required to manage, create, and extend the existing pool of technological resources.	3.324	.0778	.7855
There is adequate resource needed to generate and manage technological change.	2.451	.0877	.8858
Technological resources within the organization have led to the overall good performance of the organization	3.373	.0858	.8666
I am satisfied with the technological resources in my organization	3.255	.0910	.9194
<b>Average</b>	<b>3.147</b>		

**Source: Field Data (2019)**

From Table 4.7, the RDAs have fairly acquired relevant and adequate technologies for strategy implementation (M=3.225, SD=0.7434). The insignificant deviation implies that not all RDA have fairly s acquired relevant and adequate technologies for strategy implementation. The RDA also have fairly available technological resources are adequate for implementation of RDAs projects (M=3.245, SD=0.8610). The insignificant standard

deviation implies that not have fairly available technological resources are adequate for implementation of RDAs projects. The results also revealed that RDAs have fairly adequate planning, systems, and training in place for managing organizational resources (M=3.157, SD=0.8871). This result agrees with Gitahi and K'Obonyo (2018) who indicated that the stated organizations listed in NSE have acquired relevant and adequate technologies, there was adequate planning, systems, and training in place for managing organizational technologies, and available information communication technology facilities are adequate for corporate strategy implementation.

The results also revealed that RDAs have fairly adequate planning, systems, and training in place for managing organizational resources (M=3.157, SD=0.8871). The insignificant standard deviation implies that there is some variation in terms of adequacy of planning, systems, and training in place for managing organizational resources. The RDAs have fairly adequate skills and know-how required to manage, create, and extend the existing pool of technological resources (M=3.324, SD=0.785). On the other hand, there is no adequate resource needed to generate and manage technological change (M=2.451, SD=0.8858). This confirmed Agbim, Zever and Oriarewo (2014) position that considered from a resource-based view approach, that organizations achieve performance through internally controlling resources. The company controls the internal factors keeping up with the resources available and ensures that the resources are used responsibly and correctly.

RDAs technological resources within the organization have fairly led to the overall good performance of the organization (M=3.373, SD=0.8666). Lastly, respondents were fairly satisfied with the technological resources in my organization (M=3.255, SD=0.914). A significant standard deviation implies that not all respondents in RDAs were satisfied with the technological resources in my organization. This finding avers with Gagnon and

Dragon (2012) that there is no doubt that technological resources have made a significant penetration into state corporations and devolved governments. It should be emphasized that the master plan had a positive impact on their performance. The use of technological resources was clearly aimed at improving performance and was intended to lead to a reduction in redundancy and wastages in public sector.

Most of the respondents associated technological resources with the ability to aid any business or organization become more effective. There are some overarching resources that most any business can use to increase productivity and decrease waste. Interview results indicated the RDAs have acquired various technological resources such as hardware and software to improve efficiency of human resources and thereby achieve organization performance goals. The RDAs were found to have in possession various software especially in human resources management and other ERP systems as required by the government. Most of processes in the RDAs have been automated thereby increase efficiency of their human resources and financial accountability. In terms of hardware, it was revealed that RDAs have acquired ICT resources such as computers, laptops, network gadgets and mobile phones which have aided in communication between head office and satellite offices as well as headquarters. Apart from ICT facilities, the RDAs have also acquired other technological resources in farm mechanization for example Lake Basin Development Authority has invested a lot in technological resources through farm mechanization so as to improve farm productivity such as rice milling technology, dairy farming, coffee etc. Similar assertion were obtained in other regional development authorities such as Coast Development projects which have adopted coral block production technology which has results to increase in supply of coral blocks in the construction industry.

It was noted that globalization and need advance in technology requires organization to have adequate technological resources to complement and supplement human resources. Therefore, the importance of technological resources cannot be underestimated regardless the size of the organization as well as the nature of organization. Some of the benefits associated with technological resources included efficiency in service delivery as most of RDAs had service charter which spell out the services that are accessible in their headquarters. The respondents also revealed that appropriateness of technological resources has resulted to increase in productivity as it has reduced wastage and detection of fraud and error for the case of software.

However, it was noted that the cost of acquiring technological resources is high as most of the technological resources are not locally available meaning, they have to be imported. Another limitation of technological resources has been need to offer the local employment opportunities and by the use of technology, some of tasks that were previously done by human are been undertaken by technological resources. This leads to conflict of interest between job creation and efficiency in service delivery. One of the respondents indicated that adoption of technological resources has faced resistance as some of the employees fear job cuts and downsizing which may hurt them negatively in time of income.

#### **4.4.2 Descriptive statistics for Financial Resources**

The study analyzed the data using quantitative approach to produce descriptive statistics. These descriptive statistics were used to derive conclusions and generalizations regarding the relationship between the financial resources and the performance. The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in regard to 10 statements related to financial resources. The results are as shown in Table 4.8.

**Table 4. 8: Descriptive Results for Financial Resources**

<b>Financial Resources</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
My organization has adequate financial resources for funding its operations	2.480	.0942	.7516
My organization has adequate information on the available sources of finance to fund its operation	3.549	.0991	1.0013
The organization uses financial resources to undertake all planned activities as indicated in the budget	3.275	.0894	.9028
My organization has adequate budgetary allocation for implementation of its core projects	2.422	.0730	.7371
Any special projects have received sufficient funding from treasury	2.755	.0716	.7235
There is limited bureaucracy in the management of financial resources between Parent Ministry and my organization	2.637	.1164	1.1756
All strategic activities are sufficiently funded at all levels of the organization	2.961	.0923	.9326
Financial managers ensure that project is adequately capitalized.	3.275	.1072	1.0823
The management allocates adequate financial resources towards projects implementation	2.471	.0982	.9921
I am satisfied with the financial resources in my organization	2.902	.0930	.9388
<b>Overall Mean</b>	<b>2.873</b>		

**Source: Field Data (2019)**

From Table 4.12, the RDAs do not have adequate financial resources for funding its operations (M=2.480, SD=0.7516). The insignificant deviation implies that all respondents were in agreement in regard to inadequacy of financial resources to fund their operations. The RDAs have adequate information on the available sources of finance to fund its operation (M=3.549, SD=1.000). The significant standard deviation implies that not all respondents confirm that they have adequate information on the available sources of

finance to fund its operation. Kairu and Ngugi (2014) found that most of the state corporation in Kenya lack adequate resources to execute their mandate. The study indicated that most financial resources are utilized in recurrent expenditure resulting to little or no financial resources for development projects. In this regard, most of the projects started were never completed according to the stipulated time, others were abandoned or others were over financed, while other projects were not in existence despite funds being allocated to those projects.

The results also revealed that RDAs have fairly used financial resources to undertake all planned activities as indicated in the budget ( $M=3.257$ ,  $SD=0.9028$ ). The significant standard deviation implies that not all respondents fairly agreed that their RDAs use financial resources to undertake all planned activities as indicated in the budget. The results also revealed that RDAs do not have adequately budgetary allocation for implementation of its core projects ( $M=2.422$ ,  $SD=0.7371$ ). The insignificant standard deviation implies that there is small variation in regard to respondents' confirmation that there is inadequate budgetary allocation for implementation of its core projects. Kioko (2017) found that the project budget should provide a clear and adequate provision for core functions and that the budget can be delineated within the overall project budget to give the core functions the due recognition it plays in project running.

The RDAs have fairly received sufficient funding from treasury for special projects ( $M=2.755$ ,  $SD=0.7235$ ). The insignificant standard deviation postulates there is confluence on fairly sufficient funding from treasury. Similarly, there is fairly limited bureaucracy in the management of financial resources between Parent Ministry and RDAs ( $M=2.637$ ,  $SD=1.1756$ ). However, the significant standard deviation suggested that there is variation in terms of bureaucracy in the management of financial resources between

Parent Ministry, other ministries and RDAs. The study found that there was need to broadly provide funds for the CDF projects at the right time for proper implementation and timely completion of the project. The study established some of the key issues in the project funding were delayed and untimely funding.

All strategic activities are fairly sufficiently funded at all levels of the RDA ( $M=2.961$ ,  $SD=0.9326$ ). There is significant variation in regard sufficiently funded at all levels of the RDA. Similarly, financial managers ensure that project is fairly adequately capitalized ( $M=3.275$ ,  $SD=1.0823$ ). There is variation in regard to adequately capitalized of projects by the RDAs meaning some of the RDAs projects are not fully capitalized. This result confirms Adhoga et al (2018) who found that most of projects funded by National Government of Kenya are not adequately funded at all level of projects management. Most of the projects financial resources were spread over several financial years resulting to delay in the completions of projects.

On the other hand, the management fairly allocates adequate financial resources towards projects implementation ( $M=2.471$ ,  $SD=0.9921$ ). There is some variation among the RDAs in regard to adequate allocation of financial resources towards projects implementation implying that some RDAs do not fairly allocate financial resources. Lastly, respondents were fairly satisfied with the financial resources in their RDAs ( $M=2.902$ ,  $SD=0.9388$ ). A significant standard deviation implies that not all respondents in RDAs were satisfied with the human resources in their organization. The findings agree Ongeti and Machuki (2018) who reported a statistically significant relationship between aggregated financial resources and performance of state corporations in Kenya.

During interview, from financial resources were identified and their sources. The main source of financial resources to RDAs is the national government through ministry of

finance. The interview results revealed that RDAs falls under ministry of Regional Development and East Africa and therefore, both recurrent and development budget are from the ministry. However, due to low budgetary allocation, the respondents indicated that RDAs are looking for alternative sources of fund to supplement government allocation. The study revealed that most of the RDAs have started commercial wings to boost their financial resources for example Coast Development Authority has constructed Wananchi Cottages and Conference Facility located in Bofa, Kilifi Town and Kitui Honey Refinery by TARDA while Kerio Valley Development Authority is currently a producer of pasture seed and is registered by KEPHIS. The interview results also revealed that they have been receiving grants from development partners to supplement their internal revenue generation sources

These results are consistent with other some theoretical and empirical studies while inconsistent with others. The results are in congruence with Morgan et al (2004) in Ismail et al (2012) argued that financial resources such as cash in hand, bank deposits and financial stocks were a firm's source of competitive advantage and superior performance. They differ to some extent with Talaja (2012) who established that both physical and financial resources were important to organizational success

Although the results reveal that the organization reallocated resources to activities other than those planned for in the course of the financial year, to a less extent, the findings also show that in some cases special projects were not properly funded. As one respondent pointed out:

“Sometimes government has brought forth special projects....these projects are not accompanied by budgetary allocation. We therefore

find ourselves redirecting funds for some planned activities to fund these projects.”

#### **4.4.3 Descriptive statistics for Human Resources**

The study analyzed the data using quantitative approach to produce descriptive statistics. These descriptive statistics were used to derive conclusions and generalizations regarding the relationship between the human resources and the performance. The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in regard to 9 statements related to human resources. The results are as shown in Table 4.9.

**Table 4. 9: Descriptive statistics for Human Resources**

<b>Human Resources</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
Staff members have been deployed according to their skills and competences	3.176	.0756	.7632
Staff members have been deployed according to their academic qualification	3.147	.0742	.7499
All employees have been fully engaged in their specific roles	2.941	.0846	.8539
The organization has had a highly qualified top management team	3.686	.0892	.9008
The organization has had adequate core staff to perform its functions	3.284	.0793	.8007
Individual employees have had the relevant skills required for their specific roles.	3.588	.0840	.8484
The organization has deliberately facilitated knowledge sharing across its different departments.	3.147	.0742	.7499
Employees routinely go for trainings in relevant areas	3.549	.0808	.8160
I am satisfied with the human resource practices in my organization	3.245	.0743	.7504
<b>Average</b>	<b>3.307</b>		

**Source: Field Data (2019)**

From Table 4.9, staff members have been fairly deployed according to their skills and competences (M=3.176, SD=0.7632). The insignificant deviation implies that staff members have been fairly deployed according to their skills and competence. Kioko (2017) established that technical expertise of staff affects the effectiveness of projects performance to a very great. The study further established that accuracy levels, turnaround time (time taken to complete a task), knowledge in monitoring and evaluation, staff morale, accountability and responsibility among staff, professional and academic qualification and staff that are political appointees affects the effectiveness of projects

performance to a great. Therefore, competency/expertise of the staff is vital to determine the accuracy, taken to complete a task and accountability of the staff.

The Staff members have been fairly deployed according to their academic qualification (M=3.147, SD=0.7499). The insignificant standard deviation implies that staff members have been fairly deployed according to their academic qualification. The minimum required mix of skills and expertise, professional and academic qualification, accuracy levels, turnaround time and the required number of staff per unit managed or administered by the agency can be established through estimates provided by knowledgeable informants (Maina, 2013). The results also revealed that all employees have been fairly engaged in their specific roles (M=2.941, SD=0.8539). There is some variation in term of fully engaged in their specific roles by the employees

The results also revealed that RDAs have a highly qualified top management team (M=3.686, SD=0.9008). The significant standard deviation implies that there is variation in terms of highly qualified top management team in the RDA hence some RDA do not have high qualified top management. This findings agree with a research conducted by Gberevbie (2010), which showed that recruitment based on merit, appropriate educational qualifications, skills and experience even within the principal of equal regional and gender representation can act as a basis for enhanced Labour productivity. This findings are also supported by research done by Gamage (2014) which identified recruitment and selection as one of the 7 HRM practices that were considered as best practice, in driving organizational performance.

The RDAs have fairly adequate core staff to perform its functions (M=3.284, SD=0.8007). There is some variation in term so of adequate core staff to perform its functions. This result confirms with Ndirangu and Gichuhi (2019) who revealed that there is fairly

sufficient skilled staff are hired in the state corporation projects in Kenya especially in energy sector. RDAs have individual employees who have relevant skills required for their specific roles (M=3.588, SD=0.8484). There is some variation in terms of individual employees who have relevant skills required for their specific roles. Kent (2011) postulates that the ability of an agency's staff to meet demands for its services depends on both its numbers and the skills and expertise staff members bring to the job. An agency needs to have at least the minimum necessary mix of skills and expertise and a sufficient number of staff with appropriate skills relative to the scale of its responsibility, measured, for example, in terms of size of its area or territory, or volume of its production.

The RDAs have fairly facilitated knowledge sharing across their different departments. (M=3.147, SD=0.7499). There is some variation in regard to facilitating knowledge sharing across their different departments. RDA employees routinely go for trainings in relevant areas (M=3.549, SD=0.8160). However, from the standard deviation, there is some variation in regard routine training in relevant areas. However, the findings disagreed with Ndirangu and Gichuhi (2019) who did confirm that state corporation staffs are continuously trained on relevant issues in project implementation and management. Lastly, respondents were fairly satisfied with the human resources in their organization (M=3.245, SD=0.705). From the standard deviation, there is some variation in regard with human resource satisfaction in the RDAs. Kasimu and Datche (2018) presented that human resources presents significant challenges to state corporations in terms of competencies, numbers of staff, mismatches, culture, values, attitudes, behaviors, motivation, staff development, productivity, staff development policies, procedures and practices due to poor handling of human resources in these state corporations.

The results from interview indicated that RDAs to some moderate extent have adequate human resources to achieve their performance objectives. The respondents indicated that the human resources management department has been following due process during employee procurement so as to ensure that they have quality human resources at their disposal. However, financial implications have denied the RDAs to attract and retain high quality human resources as well as adequate human resources to achieve its performance targets. The respondents revealed that they are cutting on wage bill implying that some aspect of human resources management are difficult to be executed as they are required to spend most of funds on development projects as compared to attracting and retaining of human resources through competitive remuneration.

The interview results also revealed that RDAs have to some extent failed to put structures that ensure talent management and succession so as to maintain their pool of human resources. The study noted that, just like any other state corporation/parastatals, the RDAs are facing acute employee attrition through retirement and this to some extent has affected their performance and therefore, they need structure to ensure there is robust talent management and succession plan. On the hand the respondents also affirm even though they allowed their employees to go for training especially in Kenya School of Government, only employees in the management are considered on regular basis as compared to other cadre of employees. This comes at backdrop of employees craving for training especially with change in technology and other challenges in the work place which require employees to upscale their skills so as to increase their efficiency at workplace.

In the utilization of human resources, the interview results indicated that RDAs have been deploying human resources in various departments according to academic qualification, competence, skills and experience. Mean scores for human resource skills were reported

to be to a moderate extent. These results are in tandem with GoK (2013) postulation that Kenyan State Corporations had weak human resources structures and institutional capacity to attract and retain skills set to drive performance. Highly skilled human resources were not possessed by these institutions to a very high extent as one responded put it:

“The emphasis on replacing the resigning and exiting personnel with seconded staff from other government departments has compromised quality (professionalism and competence). Delays in accessing required personnel through the seconding have adversely affected service delivery”

This indicates that in some state corporations there could be shortage of staff. It also appeared that some of the employees were not competent enough.

The results concur with the findings of Crook et al (2017) who found that human capital relates strongly to performance. Others (Shi & Liao, 2013) established that possession of skilled, relevant and sufficient human resources leads to superior performance. Organizations that have sufficient and skilled human resources that match their needs may out perform their peers in industry. Attracting and retaining high-quality personnel is considered a critical (Branzei and Vertinsky, 2006) to organizational success. Adequacy of number of employees is crucial to capability creation. Skill-development and training develop difficult to trade and imitate, scarce and appropriable specialized human capital assets that can lead to superior performance (Otuoma, 2014).

#### **4.4.4 Descriptive statistics for corporate governance**

In this study, corporate governance was divided into two, practice in form of board composition and principle of corporate governance in terms of accountability. The respondents were asked to indicate the level of agreement from strongly disagree (1) to

strongly agree (5) in regard to board composition. The results are as shown in Table 4.10.

Table 4. 10: Descriptive statistics for Board Composition

<b>Board Composition</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
Appointment of Board members has always considered a mix of skills required in the stewardship of the organization.	3.294	.0783	.7909
Majority of board members are independent of management	3.333	.0907	.9156
Each Board member's terms of engagement have been clearly defined	3.490	.0900	.9092
There have been clear guidelines on the operations of the Board	3.265	.0800	.8075
A member's academic qualifications have been considered before for appointment to the organization's Board	3.245	.0818	.8258
All the Board committees have been relevant to the organization's mandate	3.039	.0913	.9219
All Board members have had relevant industry experience required to steward the organization	2.892	.0667	.6735
Responsibilities of the Board have been clearly defined	4.059	.0879	.8880
Coordinating mechanisms have been in place to facilitate Board's proper functioning.	3.696	.0857	.8650
The board has been composed of both gender	3.118	.0873	.8821

**Source: Field Data (2019)**

From Table 4.10, the appointment of Board members has fairly considered a mix of skills required in the stewardship of the RDAs (M=3.294, SD=0.7909). The insignificant deviation implies that all respondents were in agreement that appointment of Board members has to some extent considered a mix of skills required in the stewardship of the RDAs. Majority of board members are fairly independent of management (M=3.333,

SD=0.9156). The significant standard deviation implies that not RDA consists of board members who are independent of management. The results also revealed that each Board member's terms of engagement have been fairly defined (M=3.490, SD=.9092). The significant standard deviation implies that not all board members' terms of engagement have been clearly defined.

The results also revealed that there have been fair guidelines on the operations of the Board (M=3.265, SD=0.8075). From the standard deviation, there is some deviation from the mean implying that some board did not have clear guidelines on the board operation. Member's academic qualifications have been fairly considered before for appointment to the RDA's Board (M=3.245, SD=.8258). There is some deviation in regard to the consideration of academic qualification during appointment to RDAs Board. Similarly, all the Board committees have been fairly relevant to the organization's mandate (M=3.039, SD=0.9219). However, the significant standard deviation suggested that there is variation in terms of Board committees have been relevant to the organization's mandate. All Board members fairly have relevant industry experience required to steward the organization RDA (M=2.892, SD=.6735). There is some variation in regard to all Board members have had relevant industry experience required to steward the organization.

Responsibilities of the Board have been clearly defined (SD=4.059, SD=0.8880) although there is some variation in regard to this assertion. Similarly, coordinating mechanisms have been in place to facilitate Board's proper functioning (M=3.696, SD=0.8650). There is some variation in regard to coordinating mechanisms have been in place to facilitate Board's proper functioning. Lastly, respondents were fairly agreed that the board has been composed of both gender (M=3.118, SD=0.8821). There is some variation in terms of gender composition of the board.

Results from the interview revealed that the board of the RDAs is fairly of mix gender although some boards have not attained the third gender rule with majority of the board members been male as compared to female. The study noted that some board members are also members of other board although not for regional development authorities. The results revealed that since board members are appointed by the office of the presidents, some of characteristics are such as mixed skills; relevant industry experiences and academic qualification are not factored in during selection. This implies that some of the RDAs boards are not competent and up to task which may impact negatively on the performance of RDAs in executing their mandate. Further, it was revealed that board responsibilities is clearly defined, each board member's terms of engagement have been clearly defined and there have been clear guidelines on the operations of the board. However, the researcher noted the performance of board in regard to composition is significantly determined by industry experience, academic qualification and independence of the board members.

The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in regard to accountability principle of corporate governance. The results are as shown in Table 4.11.

**Table 4. 11: Descriptive statistics for Accountability**

<b>Accountability</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
The accountability process is used as a means of assessing resource allocation	3.363	.0680	.6863
Management provides adequate information when making accountability	3.402	.0579	.5846
The board communicate with stakeholders at regular intervals, a fair, balanced and understandable assessment of how the RDA is achieving its goals	3.353	.0692	.6986
There are well set internal controls to check the accountability process	3.431	.0661	.6676
RDA submit themselves to appropriate external scrutiny for auditing	3.745	.0706	.7132

**Source: Field Data (2019)**

From Table 4.11, the RDA fairly emphasizes on the accountability of the funds disbursed to various projects (M=3.363, SD=0.6863). The insignificant deviation implies that there is fair emphasis on the accountability of the funds disbursed to various projects. Performance contracts have instilled a sense of accountability in the management of projects because it measures the extent to which target results have been achieved (M=3.333, SD=0.9156). The significant standard deviation implies that not all stakeholders have been involved in the appointment of the Board. The results also revealed that the board fairly communicate with stakeholders at regular intervals, a fair, balanced and understandable assessment of how the RDA is achieving its goals (M=3.353, SD=0.6986). From the standard deviation, there is small variation from this assertion.

The results also revealed the board is fairly accountable for project technical output (M=3.431, 0.6676). From the standard deviation, there is some deviation from the mean in regard to the board being accountable for project technical output. Lastly, respondents

agreed that RDA submit themselves to appropriate external scrutiny for auditing (M=3.745, SD=0.7132). There is some variation in terms of RDAs submitting themselves to appropriate external scrutiny for auditing.

During interview, the researcher noted that accountability is essential in the management of regional development authority just like any organization as the management are entrusted with various organizational resources especially financial resources. The interview results revealed most of the RDAs have been subjected themselves to external auditing by the office of the Auditor General to ensure resources are used as intended. However, the RDAs have also internal mechanism to ensure that there is accountability and transparency in the management of organizational resources. Managers of Kenyan state corporations should consider making public all their performance scores to ensure public scrutiny and comparison. Moreover, while it is a constitutional requirement for Kenyan state corporations among other public institutions to publish their financial statements, this is not effectively done.

#### **4.4.5 Descriptive statistics for Performance**

The respondents were asked to indicate the level of agreement from strongly disagree (1) to strongly agree (5) in regard to performance of RDAs. The results are as shown in Table 4.12.

**Table 4. 12: Descriptive statistics for Performance**

<b>Performance</b>	<b>Mean</b>	<b>Std. Error</b>	<b>Standard Deviation</b>
RDA projects/tasks are implemented according to the set timelines	2.314	.0696	.7033
RDA projects/tasks are implemented and evaluated according to set objectives	3.412	.0840	.8484
RDA projects/tasks are implemented according to the cost/budget provisions	2.441	.0647	.6536
RDA projects/tasks are implemented according to the set technical requirements	3.578	.0853	.8610
RDA projects/tasks are implemented according to the intended quality standards	3.559	.0783	.7907
There is parity on the share of actual expenditure out of the budgeted expenditure	3.294	.0705	.7118
My organization has consistently obtained a clean bill of health after each financial audit reports	2.784	.0585	.5908

**Source: Field Data (2019)**

From Table 4.12, RDA projects/tasks are not implemented according to the set timelines (M=2.314, SD=0.7033). The insignificant deviation implies that all respondents were in agreement that RDA projects/tasks are implemented according to the set timelines. This finding agrees with Kirui, Chemutai and Rotich (2015) who revealed that most of the projects have failed, stalled and not been effective and therefore the aim of the fund not achieved. The low success rate of national government projects implementation in Kenya has contributed to the public concern that development fund initiative is a waste of public resources.

RDA projects/tasks are fairly implemented and evaluated according to set objectives (M=3.412, SD=0.8484). There was some variation in regard to RDA projects/tasks been implemented and evaluated according to set objectives. However, the finding differs with Ndirang and Gichuhi (2019) who revealed that National Government project in Liakipia County are completed in line with the objectives. Similarly, Muchelule (2018) affirmed that it is undefined if concluded State corporation projects normally meet the required scope and quality projects standard. On the other hand, RDA projects/tasks are not implemented according to the cost/budget provisions (M=2.441, SD=.6536). From the standard deviation, it is evident that respondents confirmed that projects/tasks are not implemented according to the cost/budget provisions. Many projects have been but never completed in many parts of the constituencies while some complain of projects of low quality despite costing huge sums of money hence stalled projects.

RDA projects/tasks are implemented according to the set technical requirements (M=3.578, SD=0.8610). However, there was some variation in regard to these assertions. Similarly, RDA projects/tasks are implemented according to the intended quality standards (M=3.559, SD=0.7907). From the standard deviation, it is evident that there are some variation in relation to RDA projects/tasks been implemented according to the intended quality standards. Muchelule (2018) established that there is doubt if the state corporations' project in Kenya meets its intended goals and objectives. The implication is that the concerned stakeholders lack sufficient data and metrics to ascertain that the projects have met their intended goals and objectives.

The results also revealed that there is some parity on the share of actual expenditure out of the budgeted expenditure (M=3.294, SD=0.7118). There is some variation in regard to absorption rate. Muthomi and Thurmaier (2019) indicated that the year 2018 has seen a

decline in total development spending of 12.3% according to the 2017/18 Budget Policy Statement, as a result of lower absorption in development spending by ministries in 2016/17. According to the latest Auditor General's report, some state corporations have low absorption (63%) for its development budget, indicating that many of its development programmes were not implemented by the end of fiscal year 2014/15. Lastly, RDAs have fairly obtained a clean bill of health after each financial audit reports (M=2.784, SD=0.5908). From the standard deviation, it is evident that there is some variation in regard to external audit reports.

From secondary data obtained from Auditor General Report, there were some discrepancies in performance. For instance, during 2015/2016, Coast Development Authority had budgeted to spend Ksh. 340,070,304 on 28 activities and programs but ended up actually spending Ksh. 227,995,225 resulting to under absorption of Ksh. 112,075,079 or 33%.

In Kerio Valley Development Authority, Office of the Auditor General indicated that there is no clear ownership status of five property, plant and equipment valued at 5,614,553,533. Further there was delay in completion of Tot Irrigation project which was supported to be completed in 31 December 2011 but up to June 2015, it has not been completed resulting to cost escalation and negatively affecting service delivery. This was also reported in regard to Ptokou and Sangat Irrigation project where, the project which was supposed to be completed by 16 May 2012, it has not been commissioned. The Auditor-General says Sh4.3 billion was paid in advance to a contractor hired to build Aror Dam in Elgeyo-Marakwet County with no works done yet.

In regards to Lake Basin Development Authority, Office of Auditor General reported that the stalled Yala Swamp Weir was taken over by Dominion Group of Companies,

However, the, management continued to carry the amount as work in progress. Further, Building and land parcel valued at Ksh. 4,000,000 and Ksh 1,800,000 had been transferred and registered in the name of a former employee. The authority and a private developer entered into a contract on May, 8, 2013 to construct the mall at Sh2.41 Billion. However the cost was varied to Sh3.86 billion, a variation of Sh1.40 billion (57 per cent), which is contrary to the public procurement and disposal Regulations.

In regards to Tana and Athi Rivers Development Authority, The report is nothing less than a detailed manual on how to fleece a government parastatal – from ghost workers, to work done Kshs 45 million but no contract, to unnecessary pesticides, allocation of Kshs 35 million to plant rice that wasn't planted (but money spent), and payment of domestic works for (5 each) for the MD and Deputy MD. The authority received 30.714,048 grants from European Union for the implementation of Community Based Mini-Hydropower electric development project in Upper Tana Basin for poverty alleviation. However, the funds have remained unutilized for a period of over four years. The EU recalled the funds and advises TARDA to prepare new proposal for the grant. in the circumstance, the Authority's management seems not to have given sufficient focus on achievement of the Authority's strategic goals.

#### **4.5 Pearson Correlation Analysis**

The correlation coefficient (r) results are presented as shown in Table 4.15 using Pearson correlation analysis, which computes the direction (Positive/negative) and the strength (Ranges from -1 to +1) of the relationship between two continues or ratio/scale variables.

**Table 4. 13: Multiple Correlation Matrix**

		<b>TR</b>	<b>FR</b>	<b>HR</b>	<b>CR</b>	<b>Pf</b>
<b>TR:</b>	Pearson Correlation	1				
Technological	Sig. (2-tailed)					
Resource	N	102				
<b>FR:</b> Financial	Pearson Correlation	.338**	1			
Resources	Sig. (2-tailed)	.001				
	N	102	102			
<b>HR:</b> Human	Pearson Correlation	.190	.238*	1		
Resources	Sig. (2-tailed)	.056	.016			
	N	102	102	102		
<b>CG:</b> Corporate	Pearson Correlation	.374**	.346**	.364**	1	
Governance	Sig. (2-tailed)	.000	.000	.000		
	N	102	102	102	102	
<b>Pf:</b>	Pearson Correlation	.508**	.418**	.444**	.580**	1
Performance	Sig. (2-tailed)	.000	.000	.000	.000	
	N	102	102	102	102	102

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

From the correlation Table 4.15, technological resources is positively correlated to performance the coefficient is 0.508 (p value < 0.01) this is significant at 99% confidence level. Thus increase in technological resources would make performance of Regional Development Authorities also to increase. These finding are in agreement with Kimani (2015) who revealed that there was a positive relationship between the level of technological resources utilization and organizational performance at Population Services Kenya. However, Abri and Mahmoudzadeh (2015) found that additional technological resources investments contributed negatively to productivity, arguing that estimated marginal benefits of investment in technological resources are less than the estimated marginal costs.

Similarly, the correlation coefficient for financial resources was 0.418, P=0.000, suggesting that there is significant positive relationship between financial resources and

performance of Regional Development Authorities in Kenya. This implies that increase in financial resources would result to significant increase in performance. These findings concurred with Ahamed (2015) who sought to determine the determinants of strategy implementation in service firms. The study showed that financial resources displayed statistically significant positive correlation with strategy implementation. Nevertheless, Filser, Eggers, Kraus and Málovics (2014) who examined the effect of financial resource on firm performance in Austria and Hungary. The findings indicated that financial resources availability has insignificant effect on firm performance. Lee (2019) examined the impacts of organizational resources on agency performance. The findings established that sources of financial resources have insignificant positive effect on agency performance.

Similarly, a correlation coefficient of 0.444\*\* implied that there is significant positive relationship between human resources and performance of Regional Development Authorities in Kenya. These results are in agreement with Samad (2013) who presented a research finding on the relationship between human resources and business performance. The study found that human capital aspects are related to business performance. The study revealed that all aspects of human capital contributed significantly to business performance. However, Rothenberg, Hull and Tang (2017) established a significant negative relation between human resources and corporate performance of firms in South Africa, Burma, and Mexico.

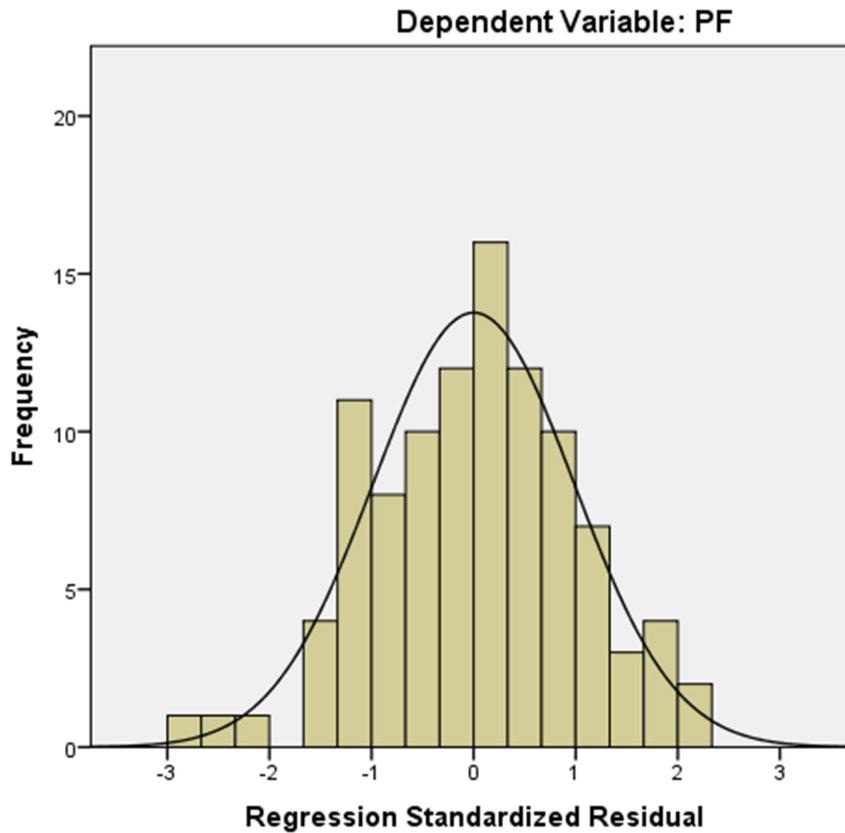
Lastly, there is significant positive relationship between Corporate governance and performance of Regional Development Authorities in Kenya as indicated by 0.580\*\*,  $p=0.000$ . This implies that improvement in corporate governance would result to increase in performance. These results are in agreement with Hamdan, Buallay & Alareeni (2017) who indicated that corporate governance has positive and significant relationship with

performance. However, Citation & Chatterjee (2011) found that corporate governance insignificantly impacts all types of companies. Further, Yameen, Farhan and Tabash (2019) found a negative and insignificant impact of corporate governance on hotels performance. This means that when board directors' size enlarges return on assets decreases; it could be explained by the increase in the cost of hiring board members.

#### **4.6 Diagnostic Test for Linear Regression Analyses**

##### **4.6.1 Normality Test**

Statistical errors are common in literature; many parametric procedures in correlation, regression, analysis of variance, and t-test are based on assumption of Gaussian or normal distribution. If this assumption do not hold it will be impossible to draw a reliable conclusion. With large samples (<30 or 40) the violation of normality assumption should not cause major problems (Ghasemi & Zahediasl 2012). Thus we can use parametric procedures as in large samples (<30 or 40) sampling distribution tend to be normal regardless of the shape of the data. Ghasemi and Zahedias (2012) recommend that normality be assessed visually. Based on the Appendix IV normal Q-Q plots indicated that departure from normality was not much as from the approximation to the line of fit. From Figure 4.1, the regression residuals were near normal distribution and hence the assumption was met.



**Figure 4. 1: Normal Curve for Regression Residual**

**Source: Field Data (2019)**

#### **4.6.2 Test of Independence (Autocorrelation)**

Independence of error terms, which implies that observations are independent, was assessed through the Durbin-Watson test. Durbin Watson (DW) test checked that the residuals of the models were not auto-correlated since independence of the residuals is one of the basic hypotheses of regression analysis (Akter, J2014). The results are as shown in Table 4.13.

**Table 4. 14: Autocorrelation Test for Regression**

<b>Variables</b>	<b>Std. Error of the Estimate</b>	<b>Durbin-Watson</b>
Technological resources	.24155	1.984
Financial Resources	.35616	1.676
Human resources	.35126	1.896
Board Composition	.31932	1.738
Accountability	.34271	1.529

**Source: Field Data (2019)**

From Table 4.13, the results of the study gave Durbin – Watson coefficient value 1.98 for technological resources, 1.67 for financial resources, 1.89 for human resources, 1.74 for board composition and 1.52 for accountability which is between 1.5 and 2.5 they indicated that there was no autocorrelation in the data residuals.

#### **4.6.3 Multi-collinearity Test**

Multi-collinearity is where two or more independent variables are highly correlated. When multi-collinearity increases, it makes the regression coefficient to fluctuate which complicates the interpretation of the coefficient as an indicator of predicting variables (Cooper & Schindler, 2011). Multi-collinearity was tested using variance inflation factors (VIF) or tolerance values. If VIF values are below 10 then rule of the thumb is there is no multi-collinearity problem or when the tolerance values have a value of one or less hence no multi-collinearity.

**Table 4. 15: Collinearity Statistics**

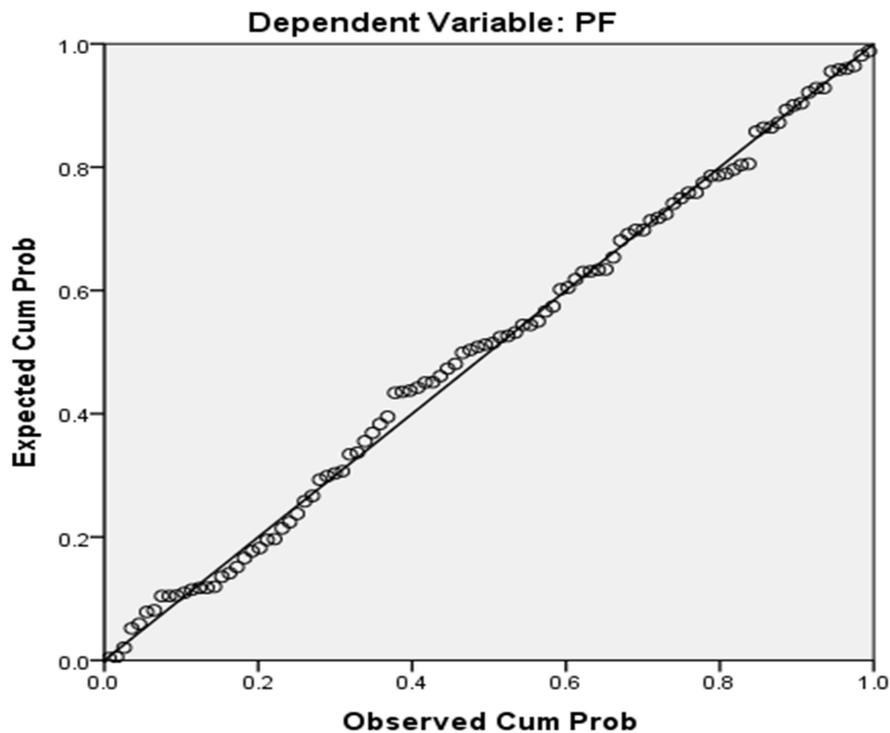
<b>Variable</b>	<b>Tolerance</b>	<b>VIF</b>
Technological Resources	.226	4.429
Financial Resources	.769	1.300
Human resources	.704	1.420
Board Composition	.345	2.895
Accountability	.307	3.254

**Source: Field Data (2019)**

From the table 4.14 shows the Multi-collinearity test undertaken, in the current study tolerance ranged from 0.226 to 0.769 which are all above 0.2 and therefore its reciprocal, the VIF was between 1.300 and 4.529, which are below the threshold value of 10 as required. This indicated that the data set displayed no multicollinearity.

#### **4.6.4 Homoscedastic Test of Performance**

##### **Normal P-P Plot of Regression Standardized Residual**



**Figure 4. 2: Homoscedastic Test of RDA performance**  
**Source: Field Data (2019)**

From the Figure 4.2 above it shows the results for Homoscedasticity test which test that independent variables variable have equal variance if not then there will be heteroscedasticity problem (Garson, 2012). A test for homoscedasticity is a test for variance in residuals in a regression model. The probability – probability plot (P-P Plot) is homoscedasticity of data distribution (Cappelleri & Bushmakin, 2013). The normal P-P plot of performance shown in Figure 4.2 show that there is small deviation of the points from the straight line that cuts across the plane. This means that the data used in this research is homoscedastic hence the model adopted multiple linear regression model thus there is no problem of heteroscedasticity.

#### **4.7 Linear Regression Analyses**

Regression analysis was done to determine the influence of independent variables on the dependent variable. These analysis yielded R which is the coefficient of correlation and R square which is the coefficient of determination. Other results of interest were Significance level (P-value), B coefficients and F statistics. The study used the correlation  $r$  (Beta,  $\beta$ ) to test the hypothesis. The test criteria are set such that the study rejects the null hypothesis if  $\beta$  is significant, otherwise the study have failed to reject the null hypothesis if  $\beta$  is significant from the t-statistics (Carolyne, Robert & Ayub, 2020).

##### **4.7.1 Influence of Technological Resources on Performance**

Regression analysis was done to determine the influence of technological resources on the performance of Regional Development Authorities. Results were presented in Table 4.16.

**Table 4. 16: Model Summary and ANOVA for Technological Resources**

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	Change Statistics		
						F Change	Df	Sig. F Change
1	.508 <sup>a</sup>	.258	.251	.33765	.258	34.792	1,100	.000

a. Predictors: (Constant), TR

**Source: Field Data (2019)**

From Table 4.16, the R value is 0.508, P=0.000 implying that the relationship between technological resources and performance of RDA is moderate and positive. Hence, increase in technological resources would results to increase in performance of RDAs. The R square which is coefficient of determination shows that up to 25.8% of variation in performance of RDAs is significantly accounted for by technological resources (R<sup>2</sup>=0.256, P=0.000). This indicates that technological resources have significant influence of the performance of RDA. The F test gave a value of (1, 100) = 34.792, P<0.01, which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that technological resources are a useful predictor of RDA performance.

**Table 4. 17: Regression Coefficient for Technological Resources**

Model	Coefficients				T	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
1	(Constant)	1.995	.287		6.943	.000
	TR	.509	.086	.508	5.898	.000

a. Dependent Variable: PF

**Source: Field Data (2019)**

From Table 4.17, the unstandardized regression coefficient ( $\beta$ ) value of technological resources was 0.509 and significance level of  $p < .001$ . This indicated that a unit change in

technological resources would result to change in performance of RDAs by 0.509. The regression equation to estimate the performance of RDAs in Kenya as a result of technological resources was hence stated as:

$$\text{Performance} = 1.995 + 0.509 \text{ Technological Resources}$$

From the results it evident technological resources have significant positive influence on the performance of regional development authorities in Kenya. This implies that RDAs which have superior technological resources would realize greater performance. This support the assumption of resource based theory whereby organizations which have valuable and unique resources are likely to have superior performance. In this case, RDAs are required to have appropriate technological resources in form infrastructure; hardware and software which would ensure that they are able to increase the efficiency and effectiveness of human resources as well as other resources. Besides, RDAs, should utilize the technological resources as required in this case, they should deploy technological resources where it would add value to the organization thereby increase performance.

The major theory that has been adopted to interpret the relationship between technology and organizational performance is the RBV proposed by Wernerfelt (1984). Barney (1991) argues that organizational resource that can create advantage must have VRIN attributes which technological resources possess. In this view, technological resources are considered a valuable organizational resource that can enhance organizational capabilities and eventually lead to higher performance. When RBV is applied to analyse the value of IT, these technological resources are usually considered to be a type of resources. In regard to dynamic capabilities theory, on their own very few resources are productive. Organizations can possess similar amounts of resources but variations in performance would surface from resource utilization. In this cases, the findings indicated that there is

moderate extent equate planning, systems, and training in place for managing technological resources. Similarly, there is less adequate skills and know-how required to manage, create, and extend the existing pool of technological resources.

This finding agrees with Kimani (2015) who revealed that there was a positive relationship between the level of IT use and organizational performance at Population Services Kenya. The study also confirms results from Mutuku (2018) who showed that there was substantial connection between the strategic use of Information Technology resources and the performance of Machakos Huduma Centre. However, the findings are in disagreement with Rehman, Nor, Taha & Mahmood (2018) who found that technological resources have insignificant influence on firm performance in Malaysia.

#### 4.7.2 Influence of Financial Resources on Performance

Regression analysis was done to determine the influence of financial resources on the performance of Regional Development Authorities. The results are as shown in Table 4.18.

**Table 4. 18: Model Summary and ANOVA Financial Resources**

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	Change Statistics		
						F Change	df	Sig. F Change
1	.418 <sup>a</sup>	.175	.166	.35616	.175	21.147	1,100	.000

a. Predictors: (Constant), FR

**Source: Field Data (2019)**

From Table 4.18, the R value is 0.418, P=0.000 implying that the relationship between financial resources and performance of RDA is moderate and positive. Therefore, increase in financial resources would results to increase in performance of RDAs. The R square which is coefficient of determination shows that up to 17.5% of variation in performance

of RDAs is significantly accounted for by financial resources ( $R^2=0.175$ ,  $P=0.000$ ). This indicates that financial resources have significant influence of the performance of RDA. The F test gave a value of  $(1, 100) = 21.147$ ,  $P<0.01$ , which supports the goodness of fit of the model in explaining the variation in the dependent variable. It also means that financial resources are a significant predictor of RDA performance.

**Table 4. 19: Regression Coefficient for Financial Resources**

Model	Coefficients			t	Sig.
	Unstandardized		Standardized		
	B	Std. Error	Beta		
1 (Constant)	2.265	.309		7.325	.000
FR	.459	.100	.418	4.599	.000

a. Dependent Variable: PF

**Source: Field Data (2019)**

From Table 4.19, the unstandardized regression coefficient ( $\beta$ ) value of financial resources was 0.459 and significance level of  $p < .001$ . This indicated that a unit change in financial resources would result to change in performance of RDAs by 0.459. The regression equation to estimate the performance of RDAs in Kenya as a result of financial resources was hence stated as:

$$\text{Performance} = 2.265 + 0.459 \text{ Financial Resources}$$

The findings indicated that financial resources have significant influence on the financial performance of regional development authorities in Kenya. This postulates that RDAs with adequate financial resources such as grants, own source revenue and government allocation are likely to realize improved performance. However, it has been noted that, government is the major source of financial resources to the RDAs as such; delay in disbursement of funds has impact on the completion of projects and other tasks undertaken

by the RDAs. Therefore, increase in the disbursement of funds would result to improvement of RDAs project performance. However, the utmost goals of financial resources on performance is utilization, the study indicated that how financial resources are utilized would impact on performance of RDAs. Mismanagement of financial resources has results to white elephants of project as some projects have remained incomplete due to lack of financial resources. Therefore, financial resources as conceptualized in term of sources, allocation, utilization and disbursement have positive influence on performance of regional development authorities in Kenya.

The findings have theoretical implication to resource base theory as well as dynamic capabilities theory. Even financial resources has been rarely used in respect to resource based theory, resource based view theory entails the identification of unique resources in a firm and making a decision where these resources can be invested to earn the company the highest returns (Hitt, Carnes & Xu, 2016). Godwin-Opara (2016) advanced for the use of the framework by stating that financial resources enable organizations to acquire other resources. As applied to the study, the RBV provides the conceptual lens to understand how obtaining financial resources may contribute to the organization performance. In relation to dynamic capability theory, the ability and capacity of organizations to combine, integrate, renew and reconfigure resources as needs arise make financial resources critical to organization performance. Regional development authorities would require financial resources to configure and reconfigure other organizational resources.

These results mirrors Ahamed (2015) who found out that financial resources and organizational structure displayed statistically significant positive correlation with strategy implementation. However, financial resources had a weak positive correlation with performance of 200 World Food Programme employees based in Nairobi and Somalia.

The findings also agree with Ager, Rukangu and Njati (2015) who found out that sufficient statistical evidence that there was a significant relationship between financial resources and successful implementation of strategic plan. However, Sulaiman (2016) revealed the financial resource dimensions do not significantly influence firm performance of Small and Medium Enterprises operating in Australia. This also confirm findings of Nganga, Wangithi and Njeru (2016) who indicated that financial resources were not necessarily influential since the availability of the resources could not guarantee performance unless properly utilized of tourism government-owned organizations.

#### 4.7.3 Influence of Human Resources on Performance

Regression analysis was done to determine the influence of human resources on the performance of Regional Development Authorities. The results are as shown in Table 4.20.

**Table 4. 20: Model Summary and ANOVA for Human Resources**

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	Change Statistics		
						F Change	df	Sig. F Change
1	.444 <sup>a</sup>	.197	.189	.35126	.197	24.550	1,100	.000

a. Predictors: (Constant), HR

**Source: Field Data (2019)**

From Table 4.20, the correlation (R) value is 0.444, P=0.000 implying that the relationship between human resources and performance of RDA is moderate and positive. Therefore, improvement in human resources would results to increase in performance of RDAs. The R square shows that up to 19.7% of variation in performance of RDAs is significantly accounted for by human resources (R<sup>2</sup>=0.197, P=0.000). This indicates that human resources have significant influence of the performance of RDA. The F test gave a value

of  $(1, 100) = 24.550$ ,  $P < 0.01$ , which supports the goodness of fit of the model in explaining the variation in the RDA performance. It also suggests that human resources are a useful predictor of RDA performance.

**Table 4. 21: Regression Coefficient for Human Resource Management**

Model	Coefficients			t	Sig.
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta		
1 (Constant)	1.725	.396		4.358	.000
HR	.576	.116	.444	4.955	.000

a. Dependent Variable: PF

**Source: Field Data (2019)**

From Table 4.21, the unstandardized regression coefficient ( $\beta$ ) value of human resources was 0.576 and significance level of  $p < .001$ . This indicated that a unit change in human resources would result to change in performance of RDAs by 0.576. The regression equation to estimate the performance of RDAs in Kenya as a result of human resources was hence stated as:

$$\text{Performance} = 1.725 + 0.576 \text{ Human Resources}$$

The study found a statistically significant relationship between human resources and performance of regional development authorities in Kenya. It worth to note that the quality and quantity of human resources influence performance of RDAs. For regional development authorities to have superior performance, they need to have adequate human resources in all cadres who are fully engaged in their roles. This implies that RDAs should be sufficiently funded so that they have the right quantity of human resources as most of the RDAs cover several counties. This would increase the quality of services delivered to the residents. The study also noted that, quantity does not matter without

quality. In this case, RDAs with right staff according to skills, academic qualification, competence and experience would realize superior performance. Apart from that, RDAs which have facilitated knowledge sharing within organization and outside organization have improved the quality of human resources resulting to increase in employee performance. Therefore, human resources have significant positive influence on the performance of regional development authorities.

The results concur with the findings of Crook et al (2011) who found that human capital relates strongly to performance. The study established that possession of skilled, relevant and sufficient human resources leads to superior performance. Organizations that have sufficient and skilled human resources that match their needs may outperform their peers in industry. Attracting and retaining high-quality personnel is considered a critical to organizational success. Adequacy of number of employees is crucial to capability creation. Skill-development and training develop difficult to trade and imitate scarce and appropriate specialized human capital assets that can lead to superior performance (Erdil, Kitapci & Timurlenk, 2010).

These results are in agreement with Tumwine, Nasiima and Kamukama (2014) who found significant association between human resources and performance of 256 Medium firms and 103 large manufacturing companies in Uganda. Similar results were registered by Samad (2013) who revealed that all aspects of human capital contributed significantly to business performance. These results contradict some previous studies while concurring with other empirical studies and theory. For instance the findings differ with GoK (2013) which asserts that most Kenyan state corporations had weak human resource and institutional capacities to attract and retain the skills needed to drive performance.

Notably, the contribution of human resources in combination with others yielded a negative coefficient.

These findings juxtaposed with comments from respondents that a freeze on hiring of staff to use seconded staff was compromising quality could partly concur with the GOK's postulations. These results also concur with Newbert (2007) who argued that human capital might not be an important determinant of performance. Conversely, independent effects of human resources on performance yielded statistically significant results, concurring with those of Crook et al (2017) who established that human resources possessed by organizations relate strongly to performance and that firms possessing superior human resources outperformed others.

The results are also in tandem with suggestions that human resources are a source of value and impact positively on performance both at managerial level and the individual level (Ongeti, & Machuki, 2018). Employee skills and their relative contributions in value creation enhance performance (Erdil et al, 2010).

RBT proposes development and maintenance of core employees' skills for superior firm performance. This study results have supported these theoretical propositions. First, it established that regional development authorities possessed core employees as well as skilled managers to a moderately high extent. This position leads to a significant influence on performance of regional development authorities. Second, the results indicated that regional development authorities did not have more employees in their respective organizations than their operational requirements. On the hand, it has been proven that possession of human resources alone does not guarantee superior performance hence bring to fore the role of dynamic capabilities theory in this study. According to the theory, the capabilities of the theory have significant influence of the resources on the

organization performance. In this case, skills, experience and academic qualification are vital qualities of human resources in achieving superior organization performance.

This is good for performance since having excess human resources leads to duplication of roles and laxity. Intangible resources influence on performance was another aspect studied. The results indicated that intangible influence on performance of Kenyan state corporations was statistically significant. These results are consistent with those of (Erdil, Kitapci and Timurlenk, 2010) who established that possession of organization knowledge, culture and other unique intangible resources leads to superior performance.

They posit that organizational knowledge and skills become an intangible resource when the organization encourages a culture of sharing across the organization and thus the skills are uniquely possessed by the organization itself. Choe et al (2006) established that there was a positive relationship between intangible assets and performance. Knowledge yields to better combination of other resources yielding to better performance. However, the results of independent effects of knowledge on performance of Kenyan state corporations were negative though not statistically significant.

#### **4.8 Multiple Linear Regressions**

Objective of this study sought objective of the study was to determine the influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. This was achieved by carrying out standard multiple regressions. The study was interested in knowing the effect of each of organizational resources constructs on performance when all these constructs were entered as a block on the model. This aided in coming up with the coefficients of the study model as well as R square of the study hence, test the null research hypotheses. The results are as shown in Table 4.22.

**Table 4. 22: Model Summary Organizational Resources and Performance**

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.650 <sup>a</sup>	.423	.405	.30087	
a. Predictors: (Constant), HR, TR, FR					

**Source: Field Data (2019)**

In Table 4.22, the findings established that the linear relationship between performance and the three predictor variables; the human resources, technological resources and financial resource is positive and linear. The coefficient of correlation was 0.650, ( $r=0.650$ ). The coefficient of determination ( $r^2$ ) was 0.423, and this shows that 42.3% of the variations in the performance can be explained by the three predictor variables in the study and the remaining 57.7% of the variations in performance is explained by other factors not captured in the model.

**Table 4. 23: ANOVA for Organizational Resources**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	6.497	3	2.166	23.923	.000 <sup>b</sup>
1	Residual	8.871	98	.091		
	Total	15.368	101			
a. Dependent Variable: PF						
b. Predictors: (Constant), HR, TR, FR						

**Source: Field Data (2019)**

From Table 4.23, the ANOVA results the F test gave a value of  $F(3, 101) = 23.923$ ,  $p < .01$ , which was large enough to support the goodness of fit of the model in explaining the variation in the dependent variables. It also means organizational resources are a useful predictor of performance of Regional Development Authorities in Kenya.

**Table 4. 24: Coefficients of the Independent Variables and Performance**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.296	.412		.719	.474
Technological Resources	.375	.082	.374	4.559	.000
Financial resources	.236	.091	.215	2.584	.011
Human Resources	.418	.103	.322	4.042	.000

a. Dependent Variable: PF

**Source: Field Data (2019)**

A regression of the three predictor variables against performance established the multiple linear regression model as below as indicated in Table 4.19:

$$\text{Performance} = 0.296 + 0.375 X_1 + 0.236 X_2 + 0.418 X_3$$

$X_1$ = Technological resources

$X_2$ = Financial resources

$X_3$ = Human resources

From table 4.24, technological resources, financial resources and human resources carried positive and significant predictive power ( $P < 0.05$ ). If organizational resources is held at zero or it is absent, the performance will be 0.296,  $p > 0.05$ . This implies that though performance will be positive but it will be insignificant. When financial resources and human resources are controlled, technological resources with a beta of 0.375 is at statistically significant level and is a good predictor of performance implying that an increase in technological resources by a unit will result to significant increase in performance by 0.375 units. The results are in agreement with García-Sánchez, García-Morales and Martín-Rojas (2018) who sought to analyse whether technological assets influence performance. The results show that support for technology and improvement of

technological skills and technological distinctive competencies promote improvement in organizational performance. However, Reichert and Zawislak (2014) investigated effect of technological resources on firm performance. The results indicated that technological resources have insignificant influence on performance of state owned organization in Brazil. Arifin, Fontana and Wijayanto (2016) indicated that existing technological resources does not significantly influence firm performance of Indonesia's electricity company

When human resources and technological resources are controlled, financial resources with a beta of 0.236 is at statistically significant level implying that an increase in financial resources by a unit will result to significant increase in performance by 0.236 units. These findings concur with Obonyo (2018) who showed that financial resources had positive significant effect on performance. Financial resources enable organization to establish overseas offices and carry out recruitment for their foreign ventures. Further, Marín-Vinuesa et al. (2020) found that slack financial resources have significant effect on performance. However, Bare (2016) conducted a study on the extent of adoption of financial accounting standards and its effect on public corporations' financial performance in Kenya. The results of this study have established an insignificant relationship between financial resources management and financial performance of public corporations in Kenya. Mention & Bontis (2013) analyzed the relation between financial capital and its components with banks performance in Luxembourg and Belgium. The findings show that financial capital affects banks performance directly and indirectly, whereas structural capital and relational capital both presented insignificant positive effect on banks performance.

Lastly, when financial resources and technological resources are controlled, human resources with a beta of 0.418 is at statistically significant level implying that an increase in human resources by a unit will result to significant increase in performance by 0.418 units. The results are in agreement with Obar (2017) who indicated that human resources significantly influences performance government owned institutions in Kenya. Tumwine, Nasiima and Kamukama (2014) established that human resources elements (employee educational level, experience and motivation) are associated with MLMC's performance. However, Mutua (2019) indicated human resource has negative influence on organizational performance at the Ministry of Health in Kenya. Human resource at MOH was limited as majority of the respondents indicated that the organization had inadequate staffing, unequal distribution of work, and ineffective utilization of HR as well as lack of training and development opportunities. In this respect it can be interpreted that the MOH does not have optimal staffing levels which will negatively affect the ministry's performance.

#### **4.9 Hierarchical Linear Regression**

Corporate governance was used as moderating variable and it was conceptualized into practices, board composition and principles, accountability. This section presents the findings of the moderating influence of corporate governance on the relationship between organizational resources and performance. This was achieved through hierarchical regression analysis where corporate governance constructs were controlled.

To determine the influence of corporate governance on the relationship between organizational resources and Performance, organizational resources was first regressed on Performance and the standardized regression coefficients (beta) examined to determine the

size and direction of the relationship and whether it was statistically significant. If this relationship is not statistically significant, there can be no moderating effect.

The equation used to measure the moderating influence was:

$$Y = \beta_0 + \beta_1 X_1 Z + \beta_2 X_2 Z + \beta_3 X_3 Z + \epsilon$$

Where X = Independent variables (Organizational Resources)

Z = Moderating variable (Corporate Governance)

Y = Performance

Finally, a regression analysis was performed and the betas examined for the strength, direction and significance of the relationship. In step one; all the organizational resources variables (Technological resources, financial resources and human resources) were entered into the model. In step two, the moderator variable in this case corporate governance was entered while in step three the interaction term between the moderator variable and organizational resources variables were entered. This is the cross product of CG and OR constructs. In each step the change in R square, F and significance level was noted. The relevant results are summarized in Table 4.25.

**Table 4. 25: Model Summary for Moderating Variable of Corporate Governance**

Model	R	R <sup>2</sup>	Adj R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	Change Statistics		
						F Change	Df	Sig. F Change
1	.650 <sup>a</sup>	.423	.405	.30087	.423	23.923	3,98	.000
2	.743 <sup>b</sup>	.551	.533	.26661	.129	27.805	1,97	.000
3	.783 <sup>c</sup>	.613	.584	.25153	.062	4.993	3,94	.003

a. Predictors: (Constant), HR, TR, FR  
b. Predictors: (Constant), HR, TR, FR, BC  
c. Predictors: (Constant), HR, TR, FR, BC, FRBC<sub>1</sub>, HRBC<sub>1</sub>, TRBC<sub>1</sub>

**Source: Field Data (2019)**

The results in Table 4.25, in step 1, organizational resources explains 42.3% of the variation in performance ( $R^2 = .423$ ,  $P=0.000$ ). At step 2, Corporate governance, adds significantly to performance as the variation increased from 42.3% ( $r^2=0.423$ ) to 55.1% ( $r^2=0.551$ ) indicating that R square changed by 12.9% ( $R^2$  change= .129,  $P< .000$ ). The results reveal that the variance explained by corporate governance is significant ( $F(1, 97) = 27.805$ ,  $p\text{-value} < .001$ ). In step 3, it is clear that in model 3 with the interaction between corporate governance (CG) and organizational resources accounted for significantly more variance than just CG and joint OR level by themselves, ( $R^2$  change = .062,  $p = .003$ ), indicating that there is potentially significant moderation of CG on the relationship between OR and performance (PF).

The regression coefficients and their significance level change with the moderating effect of corporate governance. The results also revealed that the regression coefficients and their respective significance level for Corporate governance constructs decreases when corporate governance was added to the regression model suggesting that corporate governance may be exerting a partial moderating effect on the relationship. Therefore, the results confirmed that corporate governance had a significant moderating influence on the relationship between organizational resources and the performance.

**Table 4. 26: Regression Coefficients for Moderating Variable of Corporate governance**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.296	.412		.719	.474
Technological Resources	.375	.082	.374	4.559	.000
Financial Resources	.236	.091	.215	2.584	.011
Human Resources	.418	.103	.322	4.042	.000
2 (Constant)	1.076	.394		2.731	.008
Technological Resources	.296	.074	.296	3.984	.000
Financial Resources	.175	.082	.160	2.146	.034
Human Resources	.319	.093	.246	3.417	.001
Corporate Governance	.151	.029	.388	5.273	.000
3 (Constant)	1.925	.556		3.466	.001
Technological (TR)	.430	.087	.429	4.916	.000
Financial (FR)	.166	.079	.151	2.099	.039
Human (HR)	.434	.096	.334	4.500	.000
Corporate Governance (CG)	.201	.032	.519	6.316	.000
TR*CG	.092	.112	.060	.821	.414
FR*CG	.410	.148	.251	2.773	.007
HR*CG	-.340	.115	-.229	-2.956	.004

a. Dependent Variable: Performance

**Source: Field Data (2019)**

The results in Table 4.26 indicate coefficient result for the moderation effect of CG on the relationship between OR and PF. In step 1, after entering the OR constructs, all the constructs were found to have positive and significant predicative power ( $P < 0.05$ ). In step 2, when CG was entered in the model, it also had a positive and significant effect on performance ( $\beta = 0.151$ ,  $P = 0.000$ ). This implies that if corporate governance changes by one unit, the PF levels significantly changes by 0.151 units in same direction.

In step three, upon the introduction of the interaction term (cross-product between CG and OR constructs), GC is still significant and its predictive power increases ( $B = 0.201$ ). None

of organizational resources constructs losses its significance. Two of the added interaction terms were found to be significant. Human resources interaction corporate governance ( $\beta = -0.340$ ,  $t = -2.956$ ,  $p = .004$ ) and financial resources interaction corporate governance ( $\beta = .410$ ,  $t = 2.773$ ,  $p = .007$ ) all have p-values less than 0.05 implying significant influence. The results of model 3 therefore show that corporate governance has a significant moderating effect on the relationship between human resources and RDA performance as well as between financial resources and RDA performance. These findings were also represented in the model equation as shown in below

$$PF = 1.925 + 0.430X_1 + 0.166X_2 + 0.434X_3 + 0.201Z + 0.092X_1Z + 0.410X_2Z - 0.340X_3Z$$

Where PF is the performance (**Dependent Variable**)

$X_1$  is the human resources (**Independent Variable**)

$X_2$  is the financial resources (**Independent Variable**)

$X_3$  is the technological resources (**Independent Variable**)

Z is the corporate Governance (**Moderating Variable**)

Clearly from the model, various deductions can be made; first, the FR\*CG coefficient is positive, meaning that the interactive effect is positive, therefore, as corporate governance increases by one unit, the level of financial resources effect on performance significantly increases by 0.410 ( $P = 0.007$ ). However, HR\*CG coefficient is negative, meaning that the interactive effect is negative, therefore, as corporate governance increases by one unit, the level of human resources effect on performance significantly decreases by 0.340 units,  $P = 0.004$ .

Secondly, in regard to unmoderated Beta coefficient of 0.375 (P=0.000), the interaction of corporate governance with technological resources produced a beta coefficient of 0.092 (P=0.414). This implies corporate governance has no significant moderating effect on the relationship between technological resources and performance of Regional Development Authorities.

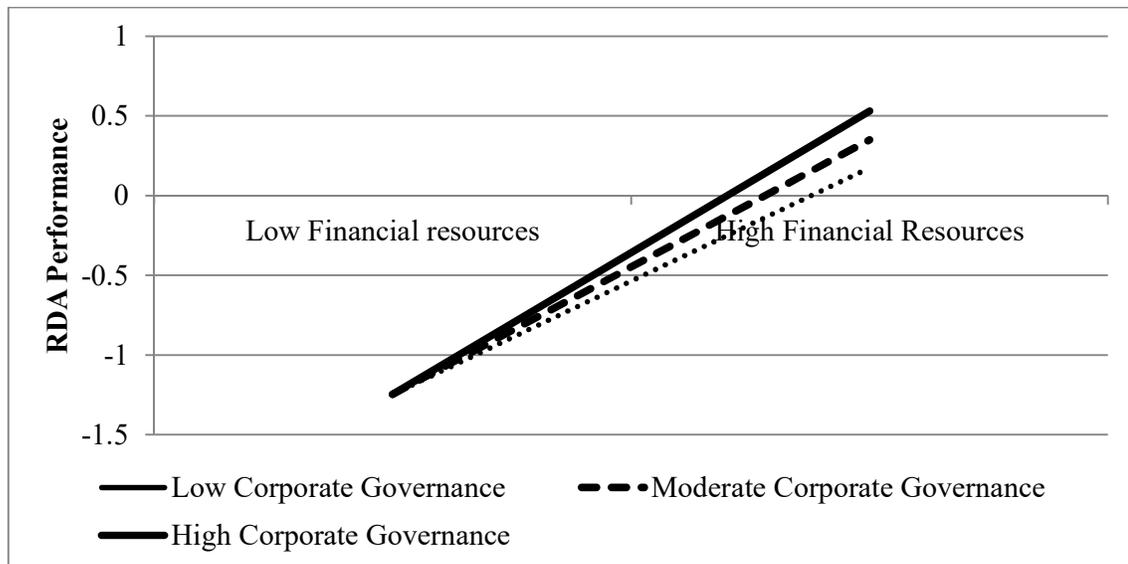
In regard to unmoderated Beta coefficient of 0.375 (P=0.011), the interaction of corporate governance with financial resources produced a beta coefficient of 0.410 (P=0.007). This implies corporate governance has significant moderating effect on the relationship between financial resources and performance of Regional Development Authorities. The B coefficient increased from 0.375 to 0.410.

In regard to unmoderated Beta coefficient of 0.375 (P=0.011), the interaction of corporate governance with financial resources produced a beta coefficient of 0.410 (P=0.007). This implies corporate governance has significant moderating effect on the relationship between financial resources and performance of Regional Development Authorities. The B coefficient increased from 0.375 to 0.410.

In regard to unmoderated Beta coefficient of 0.418 (P=0.000), the interaction of corporate governance with human resources produced a beta coefficient of -0.340 (P=0.004). This implies corporate governance has significant moderating effect on the relationship between financial resources and performance of Regional Development Authorities. The B coefficient absolutely decreased from 0.418 to 0.340.

Figure 4.3 shows a graphical presentation of the moderating effect of corporate governance on the relationship between performance and financial resources. As shown, low levels of corporate governance show a gradual slope which is due to the existence of a causal relationship between financial resources and performance. Increasing the levels of

corporate governance shows an increase in the slope of the curve between financial resources and performance. The slope keeps increasing at higher levels of corporate governance implying that increasing the levels of corporate governance has a positive moderating effect which increases the strength of the causal relationship between financial resources and performance.

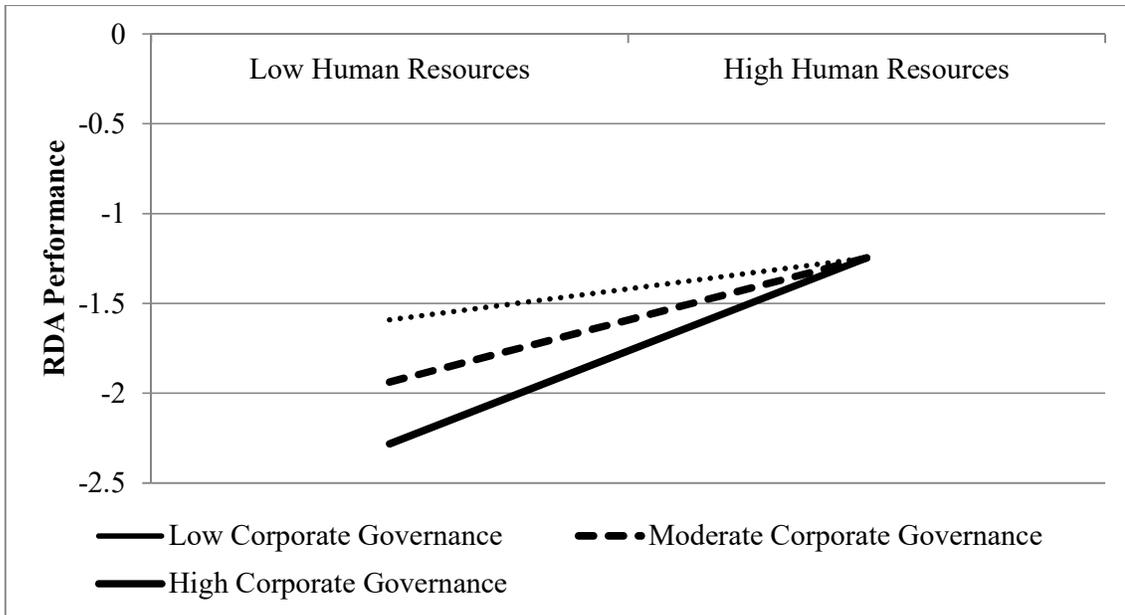


**Figure 4. 3: Moderating effect of Accountability on human resources and performance.**

**Source: Field Data (2019)**

The study found that corporate governance practices have a negative moderating effect on the relationship between human resources/technological resources and performance. Figure 4.4 shows a graphical presentation of the moderating effect of corporate governance practice on the relationship between performance and human resources. As shown, low levels of corporate governance show a gradual positive slope which is causal relationship between human resources and performance. Increasing the levels of corporate governance causes a change in the direction of the relationship as shown in the negative slope of the curve between human resources and performance at medium levels of corporate governance. The slope keeps decreasing at higher levels of corporate governance implying that increasing the levels of corporate governance has a negative

moderating effect which decreases the strength of the causal relationship between human resources and performance.



**Figure 4. 4: Moderating effect of corporate Governance on Human Resources and performance**

Source: Field Data (2019)

The results indicated that corporate governance has mixed outcome on the performance of regional development authorities. It is evident that corporate governance has significant positive influence on the relationship between financial resources and performance. This implies that the corporate governance ensures that financial resources are utilized correctly. However, corporate governance was found to have negative influence on the relationship between human resources and performance of RDAs. Omwenga (2019) revealed that board size had a significant and negative relationship with large tier SACCOs in Kenya financial performance. This is an indication that the board size has an inverse and significant effect of the financial performance of large tier SACCOs in Kenya.

The findings have various corporate governance theories connotations although the study used stewardship theory. The board should play a supportive role by empowering executives and, in turn, increase the potential for higher performance. It further assumes that managers left on their own will act as responsible stewards of the assets that they control (Heenetigala, 2011). The Stewardship Theory links superior organizational performance to having better management of resources by the management. Therefore, the board composition with right relevant industry experience, academic qualification and board independence would ensure that RDAs are able to acquire required organizational resources that would ensure RDA performance objective are achieved. On the other hand, stewardship theory relates to the corporate governance principles are the board and the management are required to be accountable on the utilization of organization resources.

These findings are in agreement with Hamdan, Buallay & Alareeni (2017) who revealed that the inclusion of corporate governance as a moderating variable has influenced positively the relationship between intellectual capital components and financial, operational and market performance. The influence of moderating variable was limited only to human resources (intellectual capital efficiency). Similar results were reported by Juma (2014) who found that all the corporate governance devices have influence on the firm value and financial resources as shown by the Tobin Q.

However, Al-ahdal, Alsamhi, Tabash and Farhan (2020) revealed that board accountability (BA) and audit committee (AC) have an insignificant impact on firms' performance measured by ROE and Tobin's Q. Similarly, transparency and disclosure (TD) have an insignificant negative impact on firms' performance measured by Tobin's Q. Al-Tamimi (2012) indicated that there is an insignificant positive relationship between CG practices of UAE national banks and performance level

#### 4.10 Stepwise Regression

Stepwise regression is a method of fitting regression models in which the choice of predictive variables is carried out by an automatic procedure. In each step, a variable is considered for addition to or subtraction from the set of explanatory variables based on some pre-specified criterion. The results are as shown in Table 4.27.

**Table 4. 27: Stepwise Regression**

Model	R	Adj R Square		Std. Error of the Estimate	Change Statistics			Sig. F Change
		R	R Square		R Square Change	F Change	df	
1	.418 <sup>a</sup>	.258	.251	.33765	.258	34.792	1,100	.000
2	.619 <sup>b</sup>	.383	.371	.30937	.125	20.120	1,99	.000
3	.650 <sup>c</sup>	.423	.405	.30087	.039	6.675	1,98	.011

a. Predictors: (Constant), Financial Resources  
b. Predictors: (Constant), Financial, Human Resources  
c. Predictors: (Constant), Financial, Human, Technological Resources

**Source: Field Data (2019)**

From Table 4.27 results using  $R^2$  the value increases with addition of each of the independent variables. The F value shows that financial resources, human resources and technological resources are significant on every addition at 95% confidence level. This results show that for the significant variables the value of  $R^2$  increase in every step to a value of 0.423. Based on the above values it shows that financial resource 25.8% in explaining variance in performance of Regional Development Authorities in Kenya, while the contribution of Human resources is 12.5%, the contribution of technological resources to the model is 3.9%. This shows that financial resources contributed the highest followed human resources then lastly by technological resources.

#### 4.11 Testing for null hypotheses

The null hypotheses were based on B Coefficient and P Values. If B coefficient is not equal to zero ( $B \neq 0$ ) and  $P < 0.05$  then hypothesis is reject (Uriel, 2013) as illustrated hereunder

- i. **H<sub>01</sub>**: Technological resources have no significant influence on the performance of regional development authorities in Kenya

**H<sub>A1</sub>**: Technological resources have significant influence on the performance of regional development authorities in Kenya

**T-Test Statistics results:** ( $t=4.559$ ;  $P=0.000 < 0.05$ ) Table 4.24

**Beta Standardized Coefficient results:**  $\beta_1 \neq 0$  ( $\beta_1=0.375$ ) and  $P=0.000 < 0.05$

**Verdict:** First null hypothesis is rejected

**Interpretation:** Technological resources have significant influence on the performance of regional development authorities in Kenya.

- ii. **H<sub>02</sub>**: Financial resources have no significant influence on the performance of regional development authorities in Kenya

**H<sub>A2</sub>**: Financial resources have significant influence on the performance of regional development authorities in Kenya

**T-Test Statistics results:** ( $t=2.584$   $P=0.011 < 0.05$ ) Table 4.24

**Beta Standardized Coefficient results:**  $\beta_2 \neq 0$  ( $\beta_2=0.236$ ) and  $P=0.011 < 0.05$

**Verdict:** Second null hypothesis is rejected

**Interpretation:** Financial resources have significant influence on the performance of regional development authorities in Kenya

- iii. **H<sub>03</sub>**: Human resources have no significant influence on the performance of regional development authorities in Kenya

**H<sub>A3</sub>:** Human resources have significant influence on the performance of regional development authorities in Kenya

**T-Test Statistics results:** (t=4.042; P=0.000<0.05) Table 4.24

**Beta Standardized Coefficient results:**  $\beta_3 \neq 0$  ( $\beta_3=0.418$ ) and P=0.000<0.05

**Verdict:** Third null hypothesis is rejected

**Interpretation:** Human resources have significant influence on the performance of regional development authorities in Kenya

- iv. **H<sub>04</sub>:** Corporate governance has no significant moderating effect on the relationship between organizational resources and performance of regional development authorities in Kenya

**H<sub>A4</sub>:** Corporate governance has significant moderating effect on the relationship between organizational resources and performance of regional development authorities in Kenya

**F-Statistics:** F >0 (F=4.771) and P=0.000<0.05 Table 4.25

**Verdict:** Fourth null hypothesis is rejected

**Interpretation:** Corporate governance has significant moderating effect on the relationship between organizational resources and performance of regional development authorities in Kenya

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter gives an overview of what has been covered in the previous chapters. It also highlights the conclusions made based on the findings of the study as well as the recommendations and suggestion for future studies.

#### **5.1 Summary of findings**

The study's main objective was to determine the influence of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. The specific objectives were to establish the influence of technological resources on performance, to determine the influence of financial resources performance, to establish the influence of human resources on the performance and to establish the moderating effect of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. Tests of hypotheses were done at 95 percent confidence levels ( $p < 0.050$ ) on the independent and combined effects. The summary of the findings is equally presented in the same manner in the subsequent sections.

##### **5.1.1 Influence of technological resources on performance**

The first objective of the study was to establish the influence of technological resources on performance of regional development authorities in Kenya. The respondents fairly agreed that RDAs have has acquired relevant and adequate technologies for strategy implementation. The respondents also fairly agreed that technological resources are adequate for implementation of RDAs projects. The respondents also fairly agreed that technological resources within the RDAs have led to the overall good performance of the

organization and there is fairly adequate skills and know-how required to manage, create, and extend the existing pool of technological resources. However, there is no adequate resource needed to generate and manage technological change within the RDAs.

The inferential results revealed that there is direct relationship between technological resources and performance of RDAs ( $R=0.508$ ,  $P=0.000$ ). This implies that increase in technological resources would result to increase in the performance of RDAs. The coefficient of determination through the R square indicated that up to 25.8% of change in performance of RDAs is significantly accounted for by technological resources ( $R^2=0.251$ ,  $P=0.000$ ). This implies that technological resources are a significant predictor of RDAs performance. When financial resources and human resources are controlled, a unit increase of technological resources will result to significant increase in performance by 0.375 units ( $\beta_1=0.375$ ,  $P=0.000$ ). Therefore, therefore the study failed to accept the first null hypothesis that posits: **H<sub>01</sub>**: technological resources have no significant influence on the performance of regional development authorities in Kenya.

### **5.1.2 Influence of financial resources on performance**

The second objective of the study was to determine the influence of financial resources performance of regional development authorities in Kenya. The respondents agreed that RDAs have adequate information on the available sources of finance to fund its operation. The respondent fairly agreed that RDAs use financial resources to undertake all planned activities as indicated in the budget and financial managers fairly ensure that project is adequately capitalized. However, RDAs management does not allocate adequate financial resources towards projects implementation, RDAs has not adequate budgetary allocation for implementation of its core projects and RDAs has not adequate financial resources for funding its operations.

The inferential results revealed that there is direct relationship between financial resources and performance of RDAs ( $R=0.418$ ,  $P=0.000$ ). This implies that increase in financial resources would result to increase in the performance of RDAs. The coefficient of determination through the R square value revealed that up to 17.5% of variation in performance of RDAs is significantly accounted for by technological resources ( $R^2=0.175$ ,  $P=0.000$ ). This postulates that technological resources are useful predictor of RDAs performance. When technological resources and human resources are controlled, a unit increase of financial resources will result to significant increase in performance by 0.236 units ( $\beta_2=0.236$ ,  $P=0.011$ ). Therefore, there was adequate evidence to reject the second null hypothesis that posits:  $H_{02}$ : Financial resources have no significant influence on the performance of regional development authorities in Kenya.

### **5.1.3 Influence of human resources on the performance**

The third objective of the study was to establish the influence of human resources on the performance of regional development authorities in Kenya. The RDAs have highly qualified top management team. The respondents also agreed that individual employees have had the relevant skills required for their specific roles as well as employees routinely go for trainings in relevant areas. The respondents also fairly agreed that RDAs have adequate core staff to perform its functions. The respondents also fairly agreed that they are satisfied with the human resource practices in my organization. Respondents also fairly agreed that staff members have been deployed according to their skills and competences as well as academic qualifications.

The inferential results revealed that there is direct relationship between human resources and performance of RDAs ( $R=0.444$ ,  $P=0.000$ ). This implies that increase in human resources would result to increase in the performance of RDAs. The coefficient of

determination through the R square indicated that up to 19.7% of change in performance of RDAs is significantly accounted for by human resources ( $R^2=0.197$ ,  $P=0.000$ ). This implies that human resources are a significant predictor of RDAs performance. When technological resources and financial resources are controlled, a unit increase of human resources will result to significant increase in performance by 0.418 units ( $\beta_1=0.418$ ,  $P=0.000$ ). Therefore, there was sufficient evident to reject the third null hypothesis that posits:  $H_{03}$ : Human resources have no significant influence on the performance of regional development authorities in Kenya.

#### **5.1.4 Moderating effect of corporate governance on the relationship between organizational resources and performance**

The fourth objective of the study was to establish the moderating effect of corporate governance on the relationship between organizational resources and performance of regional development authorities in Kenya. Respondents fairly agreed that board appointment considers mix skill, academic qualifications, relevant industry experience and gender. The respondents fairly agreed that there is coordinating mechanism for proper board functioning and stakeholder holders are fairly involved in the appointment of board members. The board members were also found fairly relevant to the organization mandates. The respondents agreed that responsibilities of the Board have been clearly defined. In regard to accountability, respondents fairly agreed that accountability process is used as a means of assessing resource allocation; management fairly provides adequate information when making accountability and they also fairly agreed that there are well set internal controls to check the accountability process. However, respondents agreed that RDA submit them to appropriate external scrutiny for auditing.

The multiple linear regression revealed that there is direct relationship between joint organizational resources and performance of RDAs ( $R=0.650$ ,  $P=0.000$ ). This implies that increase in organization resources would results to increase in the performance of RDAs. The coefficient of determination through the R square indicated that up to 42.3% of change in performance of RDAs is significantly accounted for by human resources ( $R^2=0.423$ ,  $P=0.000$ ). This suggests that organizational resources are a significant predictor of RDAs performance. Corporate governance significantly accounts for 12.7% change in performance bringing the overall percentage change which is accounted for by corporate governance and organizational resources in the model to be 55.0% ( $R^2=0.550$ ,  $P=0.000$ ). On the other hand, the interaction between organizational resources and corporate governance constructs results to an R square of 0.658 implying the interaction accounts for additional 10.9% change in the performance of RDAs.

Corporate governance practices of board composition negative influence technological resources and human resources of RDA. From the results, increase in board composition attributes results to reduction on the effect of technological resources ( $\beta=-0.535$ ,  $P=0.031$ ) and human resources ( $\beta=-0.345$ ,  $P=0.002$ ) on performance of RDAs. On the other hand, corporate governance principle of accountability positively influences human resources and financial resources. From the findings, increase in board composition attributes results to reduction on the effect of technological resources ( $\beta=-0.535$ ,  $P=0.031$ ) and human resources ( $\beta=-0.345$ ,  $P=0.002$ ) on performance of RDAs. On the other hand, corporate governance principle of accountability positively influences human resources and financial resources. From the findings, increase in accountability results to increase on the effect of human resources ( $\beta=0.225$ ,  $P=0.029$ ) and financial resources ( $\beta=0.175$ ,  $P=0.007$ ) on performance of RDAs. Therefore, there was sufficient evident to reject the fourth null hypothesis that posits: **H<sub>04</sub>**: Corporate governance has no significant moderating effect on

the relationship between organizational resources and performance of regional development authorities in Kenya.

## **5.2 Conclusion**

It is evident that most of RDAs to a fair extent have acquired relevant and adequate technologies which have aided them to implement their strategies including various projects been undertaken. The RDAs have fairly adequate skills and know-how required to manage, create, and extend the existing pool of technological resources. However, there is no adequate resource needed to generate and manage technological change. Technological resources have significant relationship with RDA performance in Kenya. This implies that increase in technological resources would resource to significant improvement in RDA performance in Kenya. Therefore study concluded that technological resources have significant influence on the performance of Regional Development Authorities in Kenya.

In regard to financial resources, the study established that financial resources are fairly available to the regional development as the RDAs depend on the parent ministry for financial support. With competing government needs and devolution, regional developments have been receiving limited financial resources to carry out their mandate. As a result, the RDAs have inadequate budgetary allocation for implementation of its core projects which forces the management to allocate inadequate financial resources towards projects implementation. This comes at backdrop of RDAs having adequate information on the available sources of finance to fund its operation but they need to get confirmation from the parent ministry before sourcing funds from other sources. On the other hand, financial managers fairly ensure that project is adequately capitalized so as to achieve performance goals of RDA projects. Financial resources have significant relationship with RDA performance in Kenya. This postulates that increase in financial resources would

resource to significant increases in RDA performance in Kenya especially in the completion of projects on time as some projects have taken long time to complete due to lack of financial resources. Therefore study concluded that financial resources have significant influence on the performance of Regional Development Authorities in Kenya.

Human resource is considered key organizational resources as other resources directly or indirectly depend on human resources to have impact on the organizational performance. On the other hand, availability of other resources in the organization can have influence on the performance of human resources especially in term of acquisition and efficiency. The RDAs were found to have fairly adequate human resources in term of quality and quantity and this is vital in achieving organization performance targets. The utilization of human resources has been fairly done according to skills, competent, experience and academic qualification as quality of human resources is determine by these metrics. However, not all RDAs have the all of their employee fully engaged in their specific roles which may be detrimental to organization performance. RDAs ensured that that they have a highly qualified top management team and they go for trainings in relevant areas. Human resources have significant positive relationship with RDA performance in Kenya. This suggests that improvement in human resources in terms of quality and quantity would results to significant increases in RDA performance in Kenya especially in the absorption rate of funds and level of efficiency as well as effectiveness. Therefore study concluded that human resources have significant influence on the performance of Regional Development Authorities in Kenya.

The study further included corporate governance under practices and principles. Corporate governance has gain credence in public problem which is in tandem with agency theory and stewardship theory. Accountability has positive influence on the relationship between

corporate governance and performance while board composition was found to have negative influence on the relationship between corporate governance and performance of RDA. Board composition is vital as far as organization performance is concerned. It is clear that its composition must be responsive to the basic functions that are assigned to it: supervising and monitoring, avoiding opportunistic behaviour on the part of executives, and providing advice to decision makers to improve the management of the RDAs. A well constituted board is able to implement various corporate governance principles and thereby aid in achieving objectives of the organization. In this regard, the study established that there is fair mix of skills in the board composition. Academic qualification of board members has also been fairly considered as well as gender and industry experience of the board members. These three aspects of board composition are vital in the management of organizational resources especially technological, human resources and financial resources.

In regard to corporate governance principle of accountability, performance of public corporation is hinged on various Acts which ensure there is accountability in the use of public resources. Board accountability is about taking responsibility for all of a company's activities and presenting a fair, balanced and understandable assessment of an organisation's position and prospects to stakeholders. Accountability process is fairly used as a means of assessing resource allocation to various projects undertaken by the RDAs. The board fairly communicates with stakeholders at regular intervals, a fair, balanced and understandable assessment of how the RDA is achieving its goals. It was evident to ensure accountability of the funds disbursed from the parent ministry, RDA submit themselves to appropriate external scrutiny for auditing.

Organizational resources jointly (human, technological and financial) significantly influence RDA performance. The study concluded that corporate governance has significant moderating effect on the influence of organizational resources on regional development authorities' performance. This implies that corporate governance have significant influence over and above organizational resources on RDA performance. However, there was significant difference in regard to principles and practices as well as the type of organizational resources. Corporate governance principle of accountability has positive influence on the relationship between human resources as well financial resources on performance of RDAs. This implies that accountability would results increase in performance of RDAs in regard to financial resources and human resources. RDAs which are implementing principles of accountability would results to increase in efficiency and effectiveness of their human and financial resources which would then enhance their performance. However, the same was not evident for technological resources. Therefore, the study concluded that accountability impacts positive influence on the relationship between performance and human resources as well as financial resources.

Corporate governance practices of body composition on the other hand have a negative influence on the relationship between human resources as well technological resources on performance of RDAs. This implies that board composition of some RDAs would results to decrease in performance of RDAs in regard to technological resources and human resources. The board composition in this independence to the management may have a negative influence in the procurement of human and technological resources. Some of the board members have influence on various human resources position within the RDAs which affects performance of RDAs negatively. Similarly, composition of RDAs in terms of skills, industry experience and academic qualification has influence management of

technological resources which influence performance of RDAs negatively. However, the same was not evident for financial resources.

#### **5.4 Implication to Practices of Strategic Management and to Policy**

The findings from this research present a number of issues that have implications for practice of strategic Management practices. Poor performance of state corporations has attracted a lot of interest from scholars, practitioners and policy makers despite the existence of corporate governance in form of *Mwongozo* for better utilization of organization resources. The study has significant policy implications and recommendations as management of State Corporation such as regional development authorities must work closely with board to ensure there are adequate resources and at the same time, the board should ensure that available resources are utilized in a way that they enhance RDAs performance. This can be achieved by improving on the board composition and its independence so as it plays significant in terms of oversight and policy formulation. Further, the government through various line ministries such as Finance and East African Community and Regional Development as well as National Assembly should formulate policies and regulations that would ensure organizational resources of RDA are utilized properly, and corporate governance practices and principles are adhered to the letter.

In addition, the results of this study have been particularly important in addressing the earlier identified knowledge gaps and therefore contributing to the frontiers of knowledge. The study has not only advanced an elaborate conceptual framework of organizational resources but also has empirically tested it. The findings of the study indicate that organizational resources on their own do not guarantee superior performance but with sound corporate governance principles and practices, enhanced performance is assured.

Managers therefore need to understand the major drivers of performance and those that worked against it given the existence of organizational resources. Overall, the findings of this study gave managers invaluable insights on how to build, allocate and adapt their resources and capabilities in ways that allowed them to achieve RDAs objectives in dynamic and competitive environment using strategic management practices.

These empirical results were useful given the misunderstandings of strategic organizational resources and performance that abound the organizational resources literature. This study made an important contribution to the advancement of academic knowledge on strategic management practices from the context of sub Saharan African setting and particularly on regional development authorities in Kenya. The extant literature decries the lack of scholarly contribution on organizational resources and performance from sub-Saharan Africa and on the public sector settings. The study, therefore, encouraged more scholarly output on organizational resources and performance from sub-Saharan Africa.

Finally, this study might be of use to managers seeking to understand the effect of organizational resources on the performance. The findings suggested that the effect was complicated. However, practical conclusions could be drawn. It was established that organizational resources could be achieved without a corresponding negative effect on performance provided there is sound corporate governance practices and principles. Therefore, since organizational resources could be of value to RDAs, managers were well advised to pursue performance as well as a suitable level of strategic management practices.

## **5.4 Recommendations**

From the conclusion, the study derived both policy and practical recommendations are derived based on the specific objectives as follows.

In regard to first objective, the study recommended that, regional development should treat the technological resources as critical strategic resources as its utilization enhances efficiency in service delivery and contributes to the reduction in operational costs by streamlining transactional operations as well as detection of fraud. The study also recommended that management regional development authorities should form linkage with other organizations both locally and internationally so as to acquire appropriate technological resources which have an impact on performance.

In regard to second objective, the study therefore recommends that management of regional authorities should not rely on the exchequer to fund their projects but should broaden their sources of funds. The study also recommended that the management should ensure the projects are fully capitalized before embarking on their implementations. The government should also reduce bureaucracy that is associated with the disbursement of funds to RDAs so as to ensure projects are funded promptly. Commercial wings

In regard to third objective, the study therefore recommends that possessing human resources is not enough to create superior performance hence there is a need for firms to be organized in order to take full advantage of their human resources. It is therefore imperative for the organization to establish a continuous human resource development to be able to anticipate and deal with the emerging issues in strategy implementation. Further, the study recommended that human resources should be well positioned and designed as a strategic partner because they are involved in formulating and in implementation of the strategies.

In regard to fourth objective, the study recommends that the regional authority board need to cultivate the culture of accountability in the management of regional development authority. This can be achieved by ensuring that they have internal checks and control to ensure resources are utilized according to the intent purpose as well as submitting themselves to external scrutiny for auditing. The study also recommended that regional development board should compose of members with mix skills, appropriate academic qualification and relevant industry experience so to provide stewardship of the organizational resources. The board should also have majority of member independent of management so that they do not have influence on human resources and technological resources procurement as their involvement may results to procurement of resources for their own self-interest.

### **5.5 Suggestion for further studies**

This study established that organizational resources combined with corporate governance structures explained performance of Regional Development authorities in Kenya. However, the explanatory power was statistically not significant especially for technological resources and financial resources. On the other hand, board composition produced negative statistically significant influence on technological resources and human resources in relation to performance of RDAs. This means that there are several other factors that explain performance in these organizations than resources and corporate governance structures. Researchers could therefore consider introducing other variables in similar studies such as the external environment, firm characteristics, strategy among other variables and establish their influence on performance. Besides, researchers could also consider a variable like the role of disaster occurrences on the performance of RDAS in Kenya.

Researchers could equally consider using other statistical tools to analyse data such as structural equation modelling, Tobin Q or factor analysis. A purely qualitative approach would also provide a rich insight in the relationship organizational resources, corporate governance structures and performance of Kenyan state corporations. Future studies could also want to investigate the reasons for positive and negative influence of interaction term when combined with other variables.

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## APPENDICES

### APPENDIX I: QUESTIONNAIRES

#### SECTION 1: BACKGROUND INFORMATION

1. What is your gender? Male  Female
2. What is your age?  
 Below 25years  25-34 years  35-44 years   
 45-54 years  above 55years
3. What is your highest level of education?  
 Secondary education  Certificate   
 Diploma  Bachelor's degree   
 Master's Degree  PhD
4. How long have you worked in this organization?  
 Below 1 year  1-5 years  6-10 years   
 11-15 years  Over 15years

In this section please tick (√) the most appropriate response for each of the questions in the table below 1 Strongly disagree **SD**, 2 Disagree **D**, 3 Fairly Agree **FA**, 4 Agree **A**, 5 Strongly agree **SA**

		5	4	3	2	1
<b>SECTION 1: Technological resources</b>						
1	The organization has acquired relevant and adequate technologies for strategy implementation					
2	The available technological resources are adequate for implementation of RDAs projects					
3	There are adequate planning, systems, and training in place for managing organizational resources					
4	There is adequate skills and know-how required to manage, create, and extend the existing pool of technological resources.					
5	There is adequate resource needed to generate and manage technological change.					
6	Technological resources within the organization have led to the overall good performance of the organization					
7	I am satisfied with the technological resources in my organization					

In this section please tick (√) the most appropriate response for each of the questions in the table below 1 Strongly disagree **SD**, 2 Disagree **D**, 3 Fairly Agree **FA**, 4 Agree **A**, 5 Strongly agree **SA**

		5	4	3	2	1
<b>SECTION 2: Financial resources</b>						
1	My organization has adequate financial resources for funding its operations					
2	My organization has adequate information on the available sources of finance to fund its operation					
3	The organization uses financial resources to undertake all planned activities as indicated in the budget					
4	My organization has adequate budgetary allocation for implementation of its core projects					
5	Any special projects have received sufficient funding from treasury					
6	There is limited bureaucracy in the management of financial resources between Parent Ministry and my organization					
7	All strategic activities are sufficiently funded at all levels of the organization					
8	Financial managers ensure that project is adequately capitalized.					
9	The management allocates adequate financial resources towards projects implementation					
10	I am satisfied with the financial resources in my organization					

In this section please tick (√) the most appropriate response for each of the questions in the table below 1 Strongly disagree **SD**, 2 Disagree **D**, 3 Fairly Agree **FA**, 4 Agree **A**, 5 Strongly agree **SA**

		5	4	3	2	1
<b>SECTION 3: Human Resource</b>						
1	Staff members have been deployed according to their skills and competences					
2	Staff members have been deployed according to their academic qualification					
3	All employees have been fully engaged in their specific roles					
4	The organization has had a highly qualified top management team					
5	The organization has had adequate core staff to perform its functions					
6	Individual employees have had the relevant skills required for their specific roles.					
7	The organization has deliberately facilitated knowledge sharing across its different departments.					
8	Employees routinely go for trainings in relevant areas					
9	I am satisfied with the human resource practices in my organization					

In this section please tick (√) the most appropriate response for each of the questions in the table below 1 Strongly disagree SD, 2 Disagree D, 3 Fairly Agree FA, 4 Agree A, 5 Strongly agree SA

		5	4	3	2	1
<b>SECTION 4: Corporate Governance</b>						
<b>a) Board Composition</b>						
1	Appointment of Board members has always considered a mix of skills required in the stewardship of the organization.					
2	All stakeholders have been involved in the appointment of the Board.					
3	Each Board member's terms of engagement have been clearly defined					
4	There have been clear guidelines on the operations of the Board					
5	A member's academic qualifications have been considered before for appointment to the organization's Board					
6	All the Board committees have been relevant to the organization's mandate					
7	All Board members have had relevant industry experience required to steward the organization					
8	Responsibilities of the Board have been clearly defined					
9	Coordinating mechanisms have been in place to facilitate Board's proper functioning.					
10	The board has been composed of both gender					
<b>b) Accountability</b>		5	4	3	2	1
1	The board emphasizes on the accountability of the funds disbursed to various projects					
2	Performance contracts have instilled a sense of accountability in the management of projects because it measures the extent to which target results have been achieved.					
3	The RDA provide accessible information on what it is doing and why it is doing it					
4	The RDA is accountable for project technical output					
5	RDA submit themselves to appropriate external scrutiny for auditing					

**e) Organization Performance**

In this section please tick (√) the most appropriate response for each of the questions in the table below 1 Strongly disagree **SD**, 2 Disagree **D**, 3 Fairly Agree **FA**, 4 Agree **A**, 5 Strongly agree **SA**

		<b>5</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
	<b>SECTION 5: Performance</b>					
1	RDA projects/tasks are implemented according to the set timelines					
2	RDA projects/tasks are implemented and evaluated according to set objectives					
3	RDA projects/tasks are implemented according to the cost/budget provisions					
4	RDA projects/tasks are implemented according to the set technical requirements					
5	RDA projects/tasks are implemented according to the intended quality standards					
6	There is parity on the share of actual expenditure out of the budgeted expenditure					
7	My organization has consistently obtained a clean bill of health after each financial audit reports					

## APPENDIX II: INTERVIEW SCHEDULE

The interview will be conducted to the chair of the board and/or the CEO. Each of Regional Development Authority has a board

Name of the RDA (Optional)

- i. What financial resources are in your position?
- ii. Are adequately funded in terms of financial resources
- iii. What are different sources of financial resources?
- iv. Are there adequate human resources in your RDAs? Explain in term of job fit
- v. Comment on the quality of human resource in terms of knowledge, skills, experience etc
- vi. What are the available technological resources?
- vii. Have technological resources aid the organization in meeting its objectives (Appropriateness, utilization etc.)
- viii. State the board structure in terms of gender, skill, age etc.
- ix. Has the organization meet its performance objectives (Completion rate, audit reports, absorption rate, efficiency and effectiveness)
  - a. If yes, what has been driving force?
  - b. If no, what are the hindrances?

### APPENDIX III: FACTOR ANALYSIS-TOTAL VARIANCE EXPLAINED

Component	Total Variance Explained					
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.816	10.034	10.034	4.816	10.034	10.034
2	4.427	9.223	19.257	4.427	9.223	19.257
3	3.566	7.429	26.686	3.566	7.429	26.686
4	2.789	5.810	32.496	2.789	5.810	32.496
5	2.502	5.213	37.709	2.502	5.213	37.709
6	2.351	4.897	42.606	2.351	4.897	42.606
7	2.103	4.382	46.988	2.103	4.382	46.988
8	1.887	3.932	50.920	1.887	3.932	50.920
9	1.618	3.372	54.292	1.618	3.372	54.292
10	1.497	3.118	57.410	1.497	3.118	57.410
11	1.459	3.041	60.451	1.459	3.041	60.451
12	1.375	2.865	63.316	1.375	2.865	63.316
13	1.166	2.429	65.745	1.166	2.429	65.745
14	1.119	2.332	68.077	1.119	2.332	68.077
15	1.086	2.262	70.339	1.086	2.262	70.339
16	1.042	2.171	72.510	1.042	2.171	72.510
17	.965	2.010	74.520			
18	.924	1.924	76.444			
19	.903	1.881	78.325			
20	.822	1.712	80.038			
21	.814	1.696	81.733			
22	.745	1.551	83.284			
23	.664	1.384	84.668			
24	.646	1.345	86.013			
25	.613	1.276	87.290			
26	.575	1.198	88.488			
27	.562	1.171	89.658			
28	.482	1.003	90.661			
29	.437	.910	91.571			
30	.419	.873	92.444			
31	.370	.771	93.215			
32	.360	.749	93.964			
33	.329	.685	94.650			
34	.294	.613	95.263			
35	.272	.566	95.829			
36	.253	.527	96.355			
37	.233	.486	96.841			

38	.229	.476	97.317		
39	.197	.411	97.728		
40	.188	.393	98.120		
41	.163	.340	98.460		
42	.157	.327	98.787		
43	.142	.297	99.084		
44	.120	.250	99.334		
45	.108	.225	99.559		
46	.092	.192	99.751		
47	.072	.150	99.901		
48	.048	.099	100.000		

Extraction Method: Principal Component Analysis.

## APPENDIX IV: NORMALITY TEST

