STRATEGIC CHANGE MANAGEMENT AND PERFORMANCE OF AGRICULTURAL DEVELOPMENT CORPORATION, KENYA

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SEPTEMBER, 2023

DECLARATION

This dissertation is my original work and has not been presented for the award of a degree in any other University.

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DEDICATION

This dissertation is dedicated to my lovely wife Judith Chelangat for her understanding, encouragement and unwavering support throughout the entire period of the study. I would also like to thank my children Sonia, Tracy, Kayden, Natalie and Travis for their unconditional love, patience and prayers which greatly inspired me to complete this dissertation. I challenge all my family members to work hard to surpass the benchmark that I have set before them. I wish to let them know that with hard work, discipline, prayers and commitment their dreams are valid.

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ABSTRACT

The study was conducted with the general objective of examining the effect of strategic change management on performance with a particular focus on Agricultural Development Corporation. The specific objectives included to examine the effect of technological innovations on performance; to determine the effect of strategic alliances on performance; to assess the effect of corporate culture on performance; and to establish the effect of management support on performance. The study was guided by the Kotter's change management theory, and the balanced scorecard model. Empirical studies touching on technological innovations, strategic alliances, corporate culture, management support, and performance have been reviewed. After summarizing and critiquing the reviewed studies, respective research gaps were identified. An explanatory research design was used in this research study. A census design was employed to obtain the participants of the study. Quantitative methods and deductive approach also guided the study. All the 51 management staff working with Agricultural Development Corporation constituted target and study populations. A research questionnaire was used to collect data. The questionnaire was pilot tested with the aim of assessing its validity and reliability. Data collection was conducted physically and through emails. The collected data were analyzed with the assistance of the Statistical Package for Social Sciences. Descriptive statistics as well as inferential statistics were used in data analysis. Before undertaking inferential statistical analysis, relevant diagnostic tests were conducted. The results of the analysis were in the form of graphs and tables. It was revealed that technological innovations, corporate culture, and management support had statistically significant effect on the performance of ADC. However, strategic alliances did not significantly affect the performance of the stated corporation. Consequently, it was concluded that management support followed by technological innovations and corporate culture were important tenets of strategic change management with regard to the performance of ADC. In order to enhance its performance, it is recommended that the corporation should consider integrating various innovative technologies. The top management should formulate sound policies that can guide the training and development of the corporation's employees. They should also come up with a strategy framework for the mentorship programs, technical support as well as remuneration of employees. It is advisable for the corporation to integrate a culture that can enhance its performance. The management staff of ADC should ensure that they are updated with regard to the technological innovations already in place in their organization. The departmental managers are advised to organize and facilitate regular training and development programmes for all cadres of staff as well as hold regular and sustainable mentorship programs for the entity's supervisory and general staff.

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ACRONYMS AND ABBREVIATIONS

ANOVA: Analysis of Variance

ADC: Agricultural Development Corporation

AI: Artificial Intelligence

ASDS: Agricultural Sector Development Strategy

ASTGS: Agricultural Sector Transformation and Growth Strategy

COVID-19: Coronavirus Disease 2019

ERS: Economic Recovery Strategy

FY: Financial Year

VIF: Variance Inflation Factor

ICT: Information and Communication Technology

ISERC: Institutional Scientific Ethics Review Committee

JASCCM: Joint Agricultural Sector Consultation and Cooperation Mechanism

KARI: Kenya Agricultural Research Institute

KALRO: Kenya Agricultural and Livestock Research Organization

MDAs: Ministries, Departments, and Agencies

NACOSTI: National Commission of Science, Technology and Innovation

S&P GSCI: Standard and Poor's Goldman Sachs Commodity Index

SPSS: Statistical Package for Social Science

SSA: Sub-Saharan Africa

DEFINITION OF OPERATIONAL TERMS

Corporate culture

This refers to the behaviour as well as beliefs that influence how the employees and management of an organization relate with the outside environment (Dimitrova, 2019).

Management support

This is the support offered by the leadership of the ADC in terms of finances, training and development, and technical support (Ionescu, Meruţă, & Dragomiroiu, 2014).

Performance

This refers to the output of ADC in terms of productivity, effectiveness, efficiency, and customer satisfaction as well as service quality (Arrerondo, Arturo, & Guadalupe, 2019).

Strategic alliances

These are collaborations and partnerships which Agricultural Development Corporation has hitherto entered to better its performance (He, Meadows, Angwin, Gomes, & Child, 2020).

Strategic change management

This refers to the management of transformation in the corporate culture, management support, strategic alliances, and technological innovations in the ADC (Naghibi & Baban, 2011).

Technological innovations

In this study, technological innovations are described as changes geared towards improving the performance of ADC. Such changes include among others, blockchain, artificial intelligence, cloud native applications, disruptive innovations, and radical innovations (Henao-García & Montoya, 2021).

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The conceptual and contextual background with regard to strategic change management and performance is presented in this section. The conceptual background puts into perspective a narration of key concepts or variables that the research focuses on (Bibri, 2015) . Under conceptual background, strategic change management and performance as well as the various constructs under them are explained. The contextual background demonstrates the global, regional, and local perspectives of the aforesaid constructs particularly in the public sector narrowing down to the Agricultural Development Corporation. The said background describes the research niche, that is, organizational and/or geographical dimensions about which research is conducted and is aligned to the study constructs and research problem (Zainuddin & Shaari, 2017).

1.1.1 Conceptual Background of Strategic Change Management and Performance

The management of strategic change is a necessity in global organizations partly because organizational health is demonstrated by its ability to strategically adapt to the constant flux of dynamic influences on global business. Strategic change refers to the variations in the content of strategy or plans as defined by its resource use, scope and competitive advantage (Naghibi & Baban, 2011) . Mulwa (2015) views strategic change management as entailing developing values of people, preferences, organizational structure, people's attitudes, developing information technology and the work environment. According to Maboko (2012), strategic change management is

described as a process that encompasses corporate values, culture, leadership or planning in an organized, structured and mindful manner in order to achieve objectives and goals set by an organization. In its entirety, strategic change management is a process aimed at placing an organization in the best competitive position process in light of prevailing and forecasted dynamics in its operating and business environments. Key aspects that are synonymous with strategic change include technological innovations, corporate culture, strategic alliances, and the support of management.

Technological innovations describe improved or completely new products and/or processes whose technological characteristics vary to a considerable extent from before. Explicably, such fall under two categories namely; product innovations and process innovations. However, some schools of thought view technological innovations to be different from product and process innovations with the latter two forms of innovations being regarded as non-technological (Henao-García & Montoya, 2021). It is posited that technological innovation processes are not sequential; rather, they emanate from adaptive systems that are complex and involve many actors and institutions drawn locally as well as globally and who operate simultaneously (Anadon, et al., 2016).

Artificial intelligence (AI) is an emerging technological innovation that is associated with huge transformative potential. It plays two crucial roles, which are the originator and facilitator of innovation. Notably, AI can be employed as a technology push, and market pull, as well as a contributor to the development of new products (Brem, Giones, & Werle, 2021) . Disruptive technologies are crucial in that they enable an organization to have a competitive edge (Chemma, 2021) . These innovations are

driven by competitive dynamics which push organizations as well as industries to initiate and/or embrace change (Chemma, 2021).

Strategic alliances have drawn a lot of attention from the industry as well as academia (Child, Faulkner, Hsie, & Tallman, 2019; He, Meadows, Angwin, Gomes, & Child, 2020). A strategic alliance is described as cooperation, partnership, or corroboration between two or more entities that contribute resources where the objective is to realize success in exchange for partial control as well as benefits from the alliance. Strategic alliances are embraced because they are critical to the realization of business objectives. Alliances are considered strategic when they play a pivotal role in enhancing the competitive advantage and core competency of an organization as well as helping in blocking competitive threats, offering future strategic options, and mitigating risk. Joint ventures and equity investments are examples of strategic alliances (Hubbard, 2013).

Cultural change is often times considered to be the most challenging part of the transformation process. This change transcends the hears and habits of people (for instance, the workforce) and their shared perception with regard to how things are done (Walker & Soule, 2017) . Corporate culture is described as a construct of immense importance in enhancing the competitiveness of organizations in the modern era. This culture enables organizations to adapt to the dynamic business environment hence necessitating implementation of corporate strategic changes. Organizations are encouraged to embrace corporate change in order for them to be sustainable (Dimitrova, 2019).

According to Ionescu, Meruţă and Dragomiroiu (2014) inasmuch as supervisors and managers may offer the greatest support when change occurs, they can also be the

biggest opponents. The importance of management support is underlined by the fact they are the closest to the employees who are required to support the behavior and new processes occasioned by change. Financial and technical support is crucial when managing change in an organization. In order to have successful change management, the executives and senior managers of an organization are required to commit themselves in a big way.

It is indicated that it is imperative to manage all activities associated with the technical realization of change within the organization. The managers should, therefore, avail technical plans thatcan guide the staff in implementing change (Heathfield, 2020) . This is regardless of the change taking place either at the departmental level or at the organizational level. Essentially, the support of the senior team is a major determining factor of the employees embracing and supporting the introduced (or needed) changes in the organization (Ionescu, et al., 2014). The managers can also support change management by facilitating timely and effective communication on issues touching on change. During change, managers are expected to communicate change to employees in order to keep them updated regarding the change and potentially avert change resistance (Campbell, 2021).

Performance is a broad term that covers what an organization does, produces and accomplishes for units or entities that it interacts with. It is described as the organization's actual outcomes relative to the anticipated outcomes. Performance further refers to the measure of efficacy and effectiveness with which an organization can take advantage of resources at its disposal to enhance the delivery of services and attain its goals (Arrerondo, Arturo, & Guadalupe, 2019).

1.1.2 Contextual Background of Strategic Change Management and Performance

Agrifood corporations are on the frontline in driving industrialization along the overall global value chain (Agrifood Atlas, 2017) . Their performance is mainly perceived from the perceptive of productivity. Technological and institutional factors that led to the emergence of large agricultural corporations with a global reach. The Standard and Poor's Goldman Sachs Commodity Index (S&P GSCI) agricultural index indicates that the performance of agrifood corporations has been fluctuating between the years 2007 and 2016. For instance, in 2010, the index (34.2) was at its highest while in 2008 it was at its lowest (-28.9). The final year of the survey, that is, 2016 recorded an index of -1.1. Factors such as financial crisis of 2008 have been the major causes of fluctuating performance of the aforesaid corporations.

One of the key challenges facing agribusiness across many countries in the Americas, Europe, Asia, Australasia, Latin America, and Africa is the projected 50% increase in demand for food and related agricultural products between the year 2012 and 2050. The foregoing challenge is attributed to population growth, urbanization as well as per capita increases in income against a backdrop of increased constrain on natural resources upon which agriculture depends (Food and Agriculture Organization, 2017). In India, the effects of coronavirus disease 2019 (COVID-19) is reportedly the biggest challenge that face the agribusiness sector. The challenge was climaxed during the peak of COVID-19 in 2020. At the time, the demand for agro-processing dropped. As well, there was an economic slowdown in fisheries, dairy, and poultry sub-sectors. Notably, farmers were obliged to sell their crops at low prices (Das, 2020).

Farmers in several European countries notably, the United Kingdom, Portugal, Italy, Romania, Spain, Belgium, the Czech Republic, Sweden, France, Germany, Hungary, Bulgaria, and Turkey have been facing serious agricultural challenges particularly in respect of nine major crops (Ricroch, et al., 2015). The said crops are maize, barley, wheat, sunflower, oilseed rape, olive, grapevine, beet, and potato. The problems touch on parasitic infestation which has compromised the production as well as the quality of harvest (Ricroch, et al., 2015). There are challenges facing the agri-food sector in European countries due to the consequences brought about by profound changes in the national and international economic scenario (Malorgio & Marangon, 2021).

In light of these challenges, the 27-member States of the European Union have agreed, by 2030, to reduce pesticides, fertilizers, and antimicrobial sales for aquaculture and livestock by 50%, 20%, and 50% respectively. On the same wavelength, it is projected over the same time period that 25% of agricultural area will be on organic farming, and that 10% of agricultural land will be transformed into high biodiversity areas (Malorgio & Marangon, 2021). The European Union and the United States lawmakers have introduced stringent regulations aimed at curbing speculation in the agricultural sector in terms of farming and agricultural investments (Agrifood Atlas, 2017).

Despite the various challenges facing the agricultural sector and agribusiness in particular in different countries, there has been strong performance of the agricultural sector in several Asian economies (Bresciani, et al., 2019). In the Philippines, for instance, there has been increased competitiveness among food processing organizations. Comparative advantages in primary agricultural products are most common in Asian countries that are considered to be low income and lower-middle income where there is a large endowment in both land and labour. Essentially, the

drastic growth in the agricultural (particularly, food processing) sector is associated with technological and organizational changes. This underlines the importance of establishing the link between the aforementioned changes and the performance of the agricultural sector (Bresciani, et al., 2019).

Enhancing agricultural performance is aimed at improving the quality as well as standards of life of Africans (Mukasa, Woldemichael, Salami, & Simpasa, 2017). Generally, the performance of the agricultural sector in Africa is generally poor with untapped huge potential. In terms of productivity, the continent has lagged behind other regions in productivity, agricultural mechanization, access to credit, as well as advisory and extension services. For instance, in Sub-Saharan Africa (SSA) the cereal yields were about 1.43 tonnes per hectare between the years 2000 and 2014 (Mukasa, et al., 2017). This was way below the 5.2 tonnes and 4.0 tonnes per hectare of cereal productivity in East Asia and Pacific countries, and Latin America and the Caribbean countries respectively (Mukasa, et al., 2017). However, it is not clearly documented regarding the performance of the agricultural corporations in Africa and also aspects of strategic change associated with these organizations.

Strategic change is crucial to the performance of organizations. In Kenya, the Ministry of Agriculture has developed a report on the sector's transformation and growth strategy for the years 2019 to 2029 (Republic of Kenya, 2019). The report documents the strategic changes towards making agriculture in Kenya sustainable thus ensuring food security in the country. There have been crucial phases observed in the history of agriculture strategies in Kenya. In 2004, the Economic Recovery Strategy (ERS) was launched with the view of stimulating economic growth. In 2010, the Agricultural Sector Development Strategy (ASDS) was launched purposely to build upon SRA. In the same year, the Constitution of Kenya 2010 was promulgated

where agricultural functions were devolved to the counties. In 2015, the Joint Agricultural Sector Consultation and Cooperation Mechanism (JASCCM) is formed to coordinate sector activities. In 2017, a task force was formed to develop Agricultural Sector Transformation and Growth Strategy (ASTGS) (Republic of Kenya, 2019).

According to Kenya Agricultural Research Institute (KARI), some of the biggest challenges facing the agricultural sector in Kenya are orchestrated by the fact that the sector is becoming increasingly technological (Republic of Kenya, 2019). Given that ADC is an agricultural parastatal, then it is expected that its activities are influenced by the technologies embraced in the agricultural sector. Generally, the performance of the agricultural sector is contingent on various factors, some of which are external to the sector. For instance, macroeconomic stability (or lack thereof) and various policies are some external factors thataffect performance of the Kenya's agricultural sector, either directly or through the organizations under it (Republic of Kenya, 2010). The foregoing raises interest in how the performance of agricultural organizations like ADC is impacted by strategic change management. Contextually, the performance of an organization is measured using various metrics or parameters that are either financial or non-financial or both (Uyen & Zainal, 2017).

The subject of change management and performance has been examined in a related state corporation in the name of Kenya Agricultural and Livestock Research Organization (KALRO). The aforementioned was examined in a study carried out by Osege (2018) which reported that a substantial proportion (14.1%) of variability in the organization performance of KALRO could be explained by change management. A related study emphasized the need for ADC to embrace change and implement strategies that can enable the organization to realize its strategic change. On this

subject, it is reiterated that strategic leadership has an important role to play as far as shaping effective organizational (corporate) culture is concerned (Chepkirui, 2012).

It is apparent that there is quite a considerable amount of literature dedicated to the performance of ADC. However, this literature has fallen short of explicitly and empirically demonstrating the influence strategic change management has on the performance of the aforesaid parastatal. For instance, Mumin (2019) investigated how compensation programs influence employee performance in ADC. This means that the performance of employees was put into perspective without addressing the overall performance of the organization. Another study examined the effects of procurement planning on the procurement performance of ADC (Kibet & Njeru, 2014) , hence neither addressing performance nor strategic change management. Yet, another study came close when it investigated challenges faced by ADC in implementing strategic change (Ruttoh, 2014) . Albeit the fact the latter study addressed strategic change in ADC, it did not link it to performance. Therefore, it was apparent that there existed a research gap that needed to be addressed.

1.1.3 Agricultural Development Corporation

Agricultural Development Corporation (ADC) is a non-commercial government parastatal. It was founded in the 1960s by an Act of Parliament Cap 346 (Republic of Kenya, 2022) . Under its vision of being a global leader in sustainable agricultural resource development, its main object of formation was to transfer land from White settlers to locals after the country gained independence. Following success in transferring land to locals, the government revised its objectives and mandated the parastatal to promote and implement agricultural schemes and reconstruction in Kenya through an Act of Parliament Cap 444 of 1986. Other key functions of ADC are the promotion of production of Kenya's important agricultural inputs, for instance

seeds and pedigree livestock, participating in agricultural production activities that are commercially viable and engaging in activities that the corporation may decide to enhance agricultural production (Republic of Kenya, 2022).

It is worth noting that the core mandate of the ADC is to promote the production of essential agricultural inputs like pedigree livestock and seeds. This implies that its performance is pegged on this mandate. It is postulated that, the performance of ADC has been on the decline. For example, in the financial year 2018/19 the corporation recorded a drop in maize seed production when compared to 2017/18. In the financial year 2019/20 the production of seed maize fell below the set projections as demonstrated by 62.5% achievement of targeted maize seed production for the period. The aforesaid is a representation of 7.5 million kilograms against the targeted 12.1 million kilograms of maize seed.

Notably, the aforestated production was a drop compared to the preceding financial year, that is, 2018/2019. Additionally, over the same period (FY 2019/20), production of other seeds such as potato seed reportedly dropped with the parastatal producing only 39.1% of the targeted potato seed production. The foregoing was a considerable increase compared to the production recorded over the preceding two financial years. Production of other agricultural (plant) commodities such as commercial wheat, silage maize, commercial maize, male rows, hay, citrus, and coffee recorded production performance that was below 70%. With regard to livestock performance, milk production (64.9%), dairy production (53.4%), beef production (58.2%), and sheep (71.3%) among others similarly recorded production that was only average (Republic of Kenya, 2020) . These statistics are supported by the ADC's strategic plan for FY 2019 to FY 2024.

The strategic plan projected that the production of maize, rice, and potatoes was bound to drop considerably by 60%, 21%, and 83% respectively (Republic of Kenya, 2019) by 2022. According to the ADC's strategic plan for FY 2014 to 2019, the state corporation recorded significant deficits in maize seed and milk production as well as potato seed production and sales of breeding herds. Against the targeted performance, these indicators realized 68.0%, 74.7%, 78.0%, and 84.3% respectively (Republic of Kenya, 2019) . Therefore, the performance of the ADC, as per its mandate, has not been improving as expected.

1.2 Statement of the Problem

While operating under the unpredictable business environment, the performance of ADC like other corporations in the public sector, has not been spared since it has been on the decline. This is espoused in the corporation's strategic plan for 2014– 2019 which is based on four strategic dimensions which are institutional strengthening, production and productivity, operational efficiency, and business lines diversification (Republic of Kenya, 2019) . In terms of maize seed and milk production, the organization achieved 68% and 74.7% of its targeted performance respectively. Potato seed production and sales of breeding herd realized 78% and 84.3% of the set targets respectively. In terms of efficiency, 60% of legal cases were automated (Republic of Kenya, 2019).

In the ADC's strategic plan for 2019 to 2024, it is documented that the country faces a projected deficit in key crops notably maize, rice, and potatoes which were anticipated to drop by 27 million bags, 430,000 metric tonnes, and 83% respectively by year 2022. Granted the fact that ADC is the state agency mandated with the production and supply of high-quality seeds, the projected poor production is a clear demonstration of the compromised performance of the state corporation (Republic of Kenya, 2019).

Besides the seed production problem, other performance challenges facing ADC include the high cost of credit accessibility, low capacity for sales and marketing products, weak project management arrangements, poor quality hay and silage, low capacity in animal husbandry, low uptake of modern technologies despite a rapid change in technology needs, and insufficient information and communication technology (ICT) skills. Linking performance to strategic change is very crucial. This is founded on the assertion that; organizations perform better when they embrace change.

The strategic change process is an important factor that can be employed to enhance the performance of an organization especially in business innovation, business process restructuring, as well as business process reengineering (Atieno & Kyongo, 2017) . The foregoing underlines the importance of linking strategic change management to performance. Past pertinent empirical studies have fallen short of explicitly linking strategic change management to the performance of ADC (Rutto, 2014; Bosire, 2018; Kai, 2021). Therefore, this study was concerned with how the aforesaid performance was affected by strategic change management.

1.3 Objectives of the Study

The study sought to address the general and specific objectives.

1.3.1 General Objective

To evaluate the effect of strategic change management on the performance of Agricultural Development Corporation, Kenya.

1.3.2 Specific Objectives

i. To examine the effect of technological innovations on performance of the Agricultural Development Corporation

ii. To determine the effect of strategic alliances on performance of the Agricultural Development Corporation

iii. To assess the effect of corporate culture on performance of the Agricultural Development Corporation

iv. To establish the effect of management support on performance of the Agricultural Development Corporation

1.4 Research Questions

The study sought answers to the following questions;

i. What is the effect of technological innovations on performance of the ADC?

ii. How do strategic alliances affect performance of the ADC?

iii. What is the effect of corporate culture on performance of the ADC?

iv. What is the effect of management support on performance of the ADC?

1.5 Significance of the Study

The government fulfills its agenda mainly through Ministries, Departments, and Agencies (MDAs). State corporations or agencies like the Agricultural Development Corporation are very crucial in respect of the national government's functions and/or operations. As such, this study is expected to be beneficial by being informative to policymakers in the ADC and related entities on issues touching on strategic change management and performance. Similarly, practitioners are expected to benefit from the findings of this study because the findings, conclusions, and recommendations will enable them to implement strategic change management practices more effectively hence contributing towards improved performance. Moreover, the insights emanating from this study are anticipated to add to the body of knowledge in the field

of strategic management. Therefore, this study will, expectedly serve as a suitable source of reference materials for scholars in the aforementioned field.

1.6 Scope of the Study

The study involved the managing director, six heads of division, 10 heads of department, three regional managers, and 31-unit managers. A set of five variables namely technological innovations, strategic alliances, management support, corporate culture, and performance was addressed by the study. On the same breadth, theories of change management and performance were reviewed and contextualized to the present study. Pertinently, the Kotter's change management theory and the balanced scorecard model were used to explain strategic change management and performance of the ADC respectively. The data for the study were collected in the month of June, 2023.

1.7 Limitations of the Study

This research was limited to four areas namely technological innovations, strategic alliances, corporate culture and management support despite the fact that there are many variables that affect the performance of the Agricultural Development Corporation. The study encountered a couple of challenges. The study focused on the management staff of the ADC and hence it was a considerable challenge to access them during data collection. To circumvent this limitation, the researcher made prior arrangements with the respondents before collecting data from them. This was effected through telephone calls purposed to make appointments with the respondents. Some of the projected respondents were unwilling to participate in the study for fear of reprisals from their superiors. The researcher addressed this limitation by allaying their fears through three approaches. First, a research permit and an introductory letter

from the university were used to authenticate the academic purpose of carrying out the research study. Second, the respondents were reassured that they were not required to identify themselves when filling in the survey questionnaire. Instead, they were expected to remain anonymous throughout the course of the research. Third, the researcher expressed willingness to share the study findings with any interested participant.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter addresses a review of theories pertinent to strategic change management and performance. This is followed by a review of relevant empirical studies. The reviewed literature is then summarized and the identified research gaps are presented. The last part of the chapter covers the conceptual framework which outlines study constructs and their presumed relationships.

2.2 Theoretical Framework

The balanced scorecard model and Kotter's change management theory are reviewed and discussed relative to the performance of Agricultural Development Corporation and strategic change management respectively.

2.2.1 Balanced Scorecard Model

The balanced scorecard (BSC) was coined by Robert Kaplan and David Norton in 1992 (Kaplan & Norton, 1992). This method was originally created as a measurement system to answer critics with regard to the measurement of the performance ability of an organization (Akbarzadeh, 2012) . A balanced scorecard is a performance metric that is used to pinpoint and enhance internal business functions and their resulting external outcomes. It can be used to measure and give feedback to an organization (Tarver, 2022).

The BSC model illustrates the measurement of performance from four strategic perspectives which encompass financial, customer, internal business process and learning and growth perspectives (Akbarzadeh, 2012) . The tenets of the BSC are applicable to all facets of an organization; financial and non-financial (Martin, 2022).

The customer perspective involves how the organization appears to its customers in a bid to achieve its vision. Measurements under this tenet include time spent on customers' calls, market share, retention and customer satisfaction (Martin, 2022).

The four perspectives of the balanced scorecard must be linked together towards the general organizational strategy. The linking of the four perspectives would require three principles that is, performance drivers, linkage to financials and establishing cause-and-effect relationships (Martin, 2022) . The balanced scorecard model has various benefits. The model aids in translating a strategy into action. It helps define and communicate performance measurements that are linked to the general strategy of the organization thus bringing strategy into action. The model further aids employees in focusing on the vital tenets that drive business in an organization (Akbarzadeh, 2012).

A balanced scorecard has its challenges or weaknesses. This method is difficult and consumes much time to implement. Kaplan and Norton estimated that it would take two years for an organization to implement the model but it may take a little longer in other organizations as it requires sustained and long-term commitment at all levels of the organization (Akbarzadeh, 2012) . Balanced scorecards may result in employees paying a lot of attention to the areas measured to obtain high rewards through performance and ignore areas that would not be measured. This can be a weak link in the organization. The model has also a challenge of being too restrictive in that it may not be able to widely cope with a dynamic business environment. The Market changes fast and it takes time to build a balanced scorecard system (Akbarzadeh, 2012).

The balanced scorecard can be anchored to the performance of the Agricultural Development Corporation. The performance of ADC can be measured based on its

role in supporting industries processing agricultural goods and promoting of production of essential agricultural inputs. The measurement metrics provided by a balanced scorecard can be applied to gauge the performance of ADC in areas of finance, customer satisfaction, the effectiveness of internal business processes (productivity) and growth. For instance, under customer satisfaction, the corporation may use the insights of balanced scorecard to identify measures of customer (industries) satisfaction by producing pedigree livestock and hybrid agricultural inputs in a sustainable manner. With respect to this aspect, the organization can use balanced scorecard to measure its performance on technology transfer to farmers and gauge their satisfaction.

The insights provided by the balanced scorecard can be used to not only improve product delivery to clients but also increase customer networks in ADC, which are important performance metrics from the customer perspective. Furthermore, balanced scorecard, particularly the finance aspect can be used to reduce the operational costs of the ADC that is the cost of production of essential agricultural inputs and variable costs in order to enhance the efficiency of the corporation. Operational costs are important elements in financial performance which is underperformance. In addition, under the financial perspective of balanced scorecard, the performance of ADC can be measured based on the utilization of assets (land) versus the cost implication.

2.2.2 Kotter's Change Management Theory

The change management model or theory was proposed by John P. Kotter in 1996. The theory states that transformative organizations are obliged to come up with an artificial void for creating a sense of urgency for a given change or changes to be embraced and driven by the people within the organization (Kotter, 1996). The model

embodies a process of managing change that involves eight sequential phases as diagrammatically represented in Figure 2.1 (Kotter, 1998).

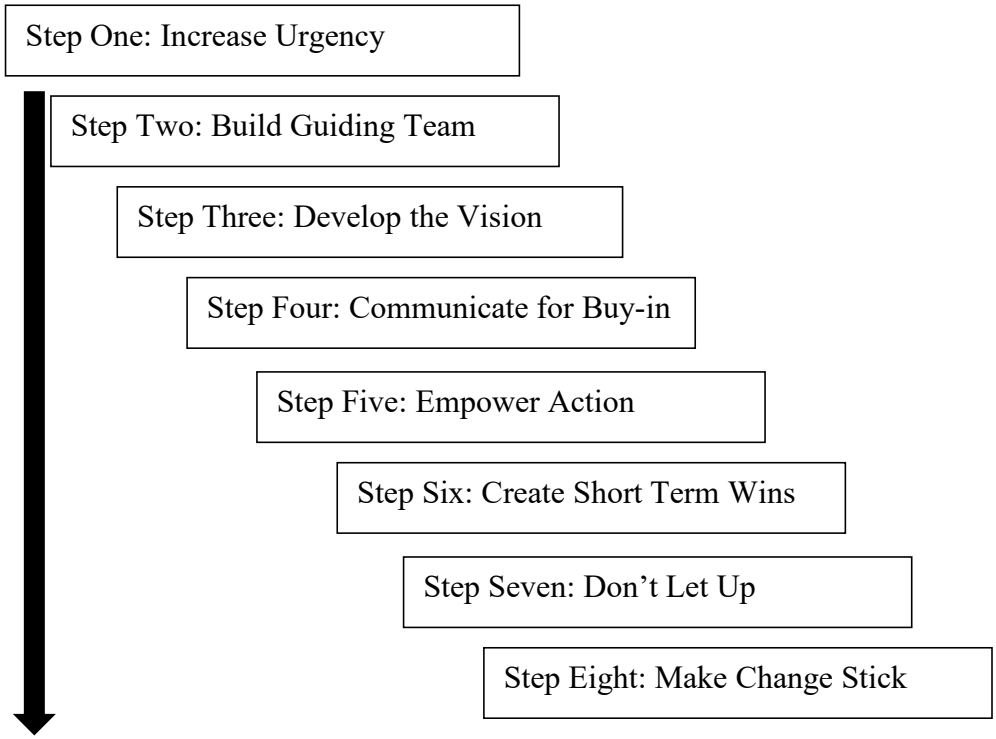


Figure 2.1: Kotter's Change Management Model (Kotter, 1996)

According to Kotter (1996), the first step involves the identification and highlighting of probable threats and their future repercussions. It also involves an analysis of opportunities that can be harnessed through effective interventions. The second step is on the formation of powerful guiding coalitions. This involves identifying effective change leaders in the organization. As such, this stage encompasses formation of a powerful change coalition that is anticipated to work as a team. Developing a change vision and strategy characterizes the third stage. The change team is expected to define the strategies as well as the vision to enable the realization of organizational change. The vision ought to be formulated in a manner that is clear to all implementers of change within the organization. The fourth stage involves communicating the vision in a convincing and persuasive manner for stakeholders to

buy it. Such communication can be complemented by training and performance reviews.

In the fifth stage, it is ensured that organizational processes and structure are put in place, and also that they are aligned to the overall vision of the organization. The stage also demonstrates a continuous check for possible barriers to change. The aim is to address resistance to change and reward the persons who endorse and embrace change in the organization. Creating short-term wins encompasses stage six of the change management process. These targets are preferable to long-term goals since they are less expensive and more achievable. In stage seven, the realized gains are consolidated. The final stage involves change entrenchment in the corporate culture. This characterizes the integration of change in the organizational culture where success stories are narrated in every possible opportunity in the organization's activities, projects, and programs (Kotter, 1996).

In the view of the afore-explained stages, strategic change management may be compromised in the event too much complacency is allowed, there is insufficient powerful guiding coalition, the power of vision is underestimated, under-communication of vision, allowing hindrances to inhibit the new vision, failure to create short-term wins, declaration of victory too soon, and also failure to firmly anchor changes to the organization's culture (Rajan & Ganesan, 2017).

The model is applicable at the strategic level of an organizational change where the aim is to transform the organization (Kotter, 1998). Past studies have indicated that Kotter's model offers important conceptual inputs on how change can be successfully implemented and disseminated in organizational culture (Rajan & Ganesan, 2017) . Given the acknowledged viability of Kotter's change management model, it will be

applied in this study to enhance the understanding of strategic change management practices in ADC particularly the respective eight phases elaborated by the model. Therefore, the tenets of the model can be used to anchor technological innovations, strategic alliances, corporate culture, and management support as facets of strategic change in the ADC. Kotter's change management theory was used to enhance the understanding of how the aforementioned constructs (technological innovations, strategic alliances, corporate culture, and management support) were part of organizational (ADC) change. These constructs were also entrenched in the various stages espoused by Kotter's model. The corporate culture was an important element that determined how ADC communicated buy-in. The management support was crucial in ensuring that the changes introduced in ADC stuck.

2.3 Empirical Review

In this section is a presentation of a review of empirical studies on technological innovations, strategic alliances, corporate culture, management support, and performance.

2.3.1 Technological Innovations

The subject of innovation at state owned enterprises was studied among European listed firms (Bortolotti, Fotak, & Wolfe, 2019). The findings established that the state-owned enterprises invested more in research and development and produced patents that were oriented towards sustainable technologies. It was further noted that governments enabled technological innovation by providing subsidies or deploying transformational technologies to enterprises to boost technological innovation. Yet, it is not apparent on the effectiveness of these innovations. This implies that there is

need to examine the aforesaid effectiveness particularly in relation to the performance of a given entity.

A comparative study carried out in China, Pakistan, and Nigeria examined the role played by advanced technology in agricultural innovation (Rongjian, Obomufok, & khan, 2019). The study compared technology innovation in the three countries. It was noted that Nigeria has not adequately advanced technological innovation in enhancing agricultural development. The government had not adequately supported its agencies to spur technological innovation to boost agricultural development. The study concluded that increased budgetary allocation by the government to its agencies would enhance agricultural development in the country. Yet, the study linked technological innovation to agricultural development without giving attention to specific organizations in the agricultural sector.

A study conducted in Kenya analyzed the effect of technological innovations on the performance of organizations in Kenya (Mutie, 2018) . The findings of the study showed that technological development tenets positively influenced performance of government agencies. It was inferred that performance of government agencies was influenced by system development enhancement, digital tools and services and information technology innovations. Inasmuch as this study has examined technological innovations, it is not apparent if the said innovations constitute strategic change management. Another local study determined the effect of innovation on financial performance of parastatals in Kenya with a particular focus on Kenya Electricity Generating Company (Kibisu, 2020) . The study noted that technological innovations greatly influenced financial performance. It was further noted that technological innovations aided product innovation which was market driven. Indeed, the study established that the products designed by the organization involved

innovativeness of technology. The study concluded that innovation influenced financial performance of the company. Technological innovations are examined relative to their influence of financial performance but not organizational performance.

2.3.2 Strategic Alliances

A study conducted in Brazil centered on the uses of strategic alliances by agricultural cooperatives in Brazi (Guimaraes, Domingues, Bueno, & Padrao, 2015). The findings indicated that strategic alliances were little known and when used, there was no theoretical basis to anchor them. It was further established that the choice to use a strategic alliance was vital regardless of the type of strategic alliance. The study underscored the essence of strategic alliance in public sector agricultural cooperatives in Brazil. Nevertheless, it remains unclear how strategic alliances impact the performance of an organization. A study conducted in Nigeria examined the utilization of collaboration strategy and its effect on organizational health of selected federal agencies (Bamson & Justin, 2019) . Findings showed that strategic collaboration between federal agencies enhanced cohesiveness. The study concluded that strategic collaboration strengthened organizational health of the studied agencies. It is not clear the extent to which strategic collaboration affected the performance of the surveyed entities.

A study carried out in Kenya determined the strategic change management practices and organizational performance of Agriculture and Food Authority (Kai, 2021) . It was established that strategic alliance positively and significantly influenced performance of Agriculture and Food Authority of Kenya. The study concluded that strategic alliances enabled the organization to penetrate new markets by utilizing resources. The study did not have a particular focus on the Agriculture Development Corporation. Another study carried out in Kenya looked into strategic management

practices and performance of corporate social responsibility of state parastatals (Sasaka, 2016).

The study observed that strategic total quality management practices and performance of corporate social responsibility created conditions for a strategic alliance. Indeed, the study established that the organization developed key partnerships with stakeholders which is an important aspect of a strategic alliance. The strategic alliance and partnerships in corporate social responsibility performance were emphasized in the study. There was no clear nexus between strategic alliance and performance.

2.3.3 Corporate Culture

A study conducted in Indonesia assessed the influence of corporate culture on corporate governance and the impact it had on t state-owned enterprises (Maya, Lubis, Maksum, Lumbaraja, & Muda, 2018) . The study found that corporate culture had a substantial influence on the corporate governance and corporate performance. The study concluded that corporate culture substantially influenced corporate performance and governance of state-owned enterprises in Indonesia. There is an apparent gap with regard to the effect of corporate culture on performance of the examined state corporations. In South Africa a study was conducted with the objective of exploring organizational culture at state owned enterprises (Lekgothoane, Maleka, & Worku, 2020). The results of the study indicated that organizational culture at the state-owned enterprises was perceived as bellicose, marred with politics and hostile and positively influenced organizational citizenship at the enterprise. It was concluded that though the organizational culture was hostile, all employees did not abandon their call of duty and maintained organizational citizenship. Apparently, the study linked organizational culture to organizational citizenship but not to performance.

A study conducted among commercial state corporations in Kenya analyzed the role of corporate culture on performance (Mose, 2017). The study findings indicated that corporate culture played a significant role in the performance of the state corporations in Kenya. It was inferred that corporate culture could be used to enhance performance of the state corporations. However, the study failed to particularly address corporate culture and performance in the ADC. The theme of organizational culture was studied in the context of performance of Kenya Power and Lighting Company (Ngara, 2018). It was found that corporate culture was positively correlated to organizational performance. The study concluded that corporate culture improved performance. The study recommended that the corporation ought to invest in creating a supportive work environment, improve communication and enhance employee capacity building. The study did not contextualize organizational culture and performance in the case of ADC.

2.3.4 Management Support

A study carried out in Indonesia looked into employee participation in decision making in state owned enterprises (Irawanto, 2015). According to the study findings, the management of the state-owned enterprises allowed their employees to be involved more in decision making in the organization. The study concluded that there was a positive relationship between employee decision making and employee motivation in state owned enterprises in Indonesia. The study, in this case, failed to clearly address management support and how it relates to performance of the surveyed enterprises. In a study conducted in Somaliland, the focus was on strategic change management and performance of food and agriculture organizations (Hussein, 2021). The study found that involvement of employees in decision making and other key matters of the organization substantially influenced the organizational

performance of the food and agriculture organization. The study concluded that employees should be involved in decision making processes to further enhance organizational performance. The study has made the assumption that decision making is part of management support.

A study conducted in government parastatals in Kenya assessed the determinants of employee performance (Muganda, 2018) . The study established that management supported employees by engaging junior ones in decision making process. Involving employees in decision making was concluded to enhance dedication to the objectives of the firm. It was not clear if management support affected the performance of the aforementioned parastatals or not. Another local study addressed internal communication and employee performance (Atambo & Momanyi, 2016) . The study noted that downward and upward communication, especially the management giving employees clear feedback enhanced employee performance at the company. The study concluded that effective communication at the company enhanced employee performance. The study was concerned with employee performance as the outcome construct as opposed to performance of the firm being examined.

2.3.5 Performance

A study conducted in various countries across the globe centred on the performance differential between private and state-owned enterprises (Phi, Taghizadeh-Hesary, Tu, Yoshino, & Kim, 2019) . The findings showed that the performance of state-owned enterprises was less than of privately owned enterprises. Thelower performance of state-owned enterprises was a result of high labor costs. The study concluded that privately owned enterprises performed better than state owned enterprises. The key

shortcoming of this study is the fact that it did not link performance of the surveyed enterprises to strategic change management.

A study conducted in Nigeria by Chukwuemeka, Okechukwu and Iloanya (2015) examined the performance of public organizations in the context of corporate governance. The rationale of the study was to find out the effect of corporate governance on the performance of government organizations. A total of 20 government establishments in Enugu state were selected. Questionnaires and face to face interviews were used to collect data. The findings portrayed that organizational performance of the government entities was influenced by corporate governance. The study inferred that the government entities in Enugu state did not practice best practice corporate governance hence poor organizational performance. Clearly, the study linked the performance of public organizations to corporate governance. This is contrary to the case of the present study where the overall objective is to establish the effect of strategic change management on performance of state corporations.

A study conducted in Kenya was concerned with strategic mergers, operational cost reduction and performance of parastatals (Margaret & Severina, 2018) . The study established that the performance of the directorates was insignificantly influenced by cost reduction in some directorates. It was concluded that, to enhance performance savings needed to be ploughed back to the directorates. Strategic change management as a predictor has not been addressed by this study. Another local study assessed the influence of management functions on the performance of state-owned agricultural entities (Kabiru, 2019). The findings illustrated that organizational performance of the selected entities was influenced by the management functions that included organizing, leading, controlling and planning. The study concluded that management

functions indeed influenced organizational performance of the state-owned agricultural entities. Albeit the fact that the reviewed study linked management functions to performance, there was no apparent emphasis on strategic change management and how it affects performance of the said organizations.

2.4 Summary of Reviewed Literature and Research Gaps

The reviewed empirical studies are summarized by outlining their authors, topics, major findings, research gaps, and how the present study sought to address the identified gaps. The summary is illustrated in Table 2.1.

Table 2.1: Summary of Reviewed Studies and Research Gaps

Authors & Year	Topic	Findings	Research Gaps	How the Present Study Addressed the Gaps
Kai (2021)	Strategic change management practices and organizational performance: A case of Agriculture and Food Authority, Nairobi City County, Kenya	Strategic alliance positively and significantly influenced performance of Agriculture and Food Authority of Kenya.	The study centred on Agriculture and Food Authority as opposed to Agricultural Development Corporation.	The effect of strategic alliances on the performance was contextualized to the case of ADC.
Kibisu (2020)	Effects of innovation on the financial performance of parastatals in Kenya: A case of Kenya Electricity Generating Compapny (KenGen)	Technological innovations aided product innovation which was market driven.	Although the study addressed technological innovations, it fell short of linking these innovations to performance.	The effect of technological innovations on performance of ADC was determined.
Kabiru (2019)	Influence of management functions on the performance of agricultural state owned corporations in Kenya	Organizational performance of the selected entities was influenced by the management functions that included organizing, leading, controlling and planning.	Organizational performance was not related to strategic change management.	The study examined the link between strategic change management and performance of ADC.
Margaret and Severina (2018)	The effect of strategic mergers on operational cost reduction and performance of parastatals in Kenya: A comparative analysis across Directorates of Agriculture and Food Authority	The performance of the directorates was insignificantly influenced by cost reduction in some directorates.	The study failed to link performance to strategic change management.	The effect of strategic change management on performance of ADC was determined.
Muganda (2018)	Factors affecting employee performance in government parastatals in Kenya: A case study of the Kenya Lighting Company	Management supported employees by engaging junior ones in decision making process.	Although management support was examined, it was not related to performance.	The effect of management support on performance of ADC was examined.

	Limited-Nakuru			
Mutie (2018)	Effect of technological innovations on organizational performance of government agencies in Kenya	Technological development tenets positively influenced performance of government agencies.	The study related technological development to performance without specifically examining technological innovations.	Technological innovations were examined in relation to the performance of ADC.
Ngara (2018)	Influence of organizational culture on performance: A case of Kenya Power and Lighting Company Limited	Corporate culture was positively correlated to organizational performance.	The scope of the study was different from the scope of the current study. Corporate culture has not been examined as part of strategic change management.	Corporate culture was addressed as a component of strategic change management particularly in ADC.
Mose (2017)	Role of corporate culture on the performance of commercial State Corporations in Kenya	Corporate culture played a significant role in performance of the state corporations in Kenya.	Though corporate culture was linked to performance, the study was not specific on corporate culture as part of strategic change management.	Corporate culture was examined as part of strategic change management in ADC.
Atambo and Momanyi (2016)	Effects of internal communication on employee performance: A case study of Kenya Power and Lighting Company, South nyanza Region, Kenya	Downward and upward communication, especially the management giving employees clear feedback enhanced employee performance at the company.	Despite the study elucidating on management support through ensuring effective communication, the same was not contextualized to strategic change management.	Management support was addressed as part of strategic change management.
Sasaka (2016)	Effect of strategic management practices on the performance of corporate social responsibility of State Parastatals in Kenya	The organization developed key partnerships with stakeholders which is an important aspect for strategic alliance.	The study did not relate strategic alliances to performance.	Strategic alliances was examined in relation to performance of ADC.

2.5 Conceptual Framework

The conceptual framework demonstrated in Figure 2.2 is illustrative of the present study's constructs. Moreover, it outlines the relationship perceived to exist between the indicated predictor variables and the dependent variable. The foregoing alludes to the description of a conceptual framework as the variables that are examined in a study (Maxwell, 2017) or a graphical or narrative explanation of the key concepts (variables, factors, or constructs) to be studied as well as the presumed relationships between them (Miles, Huberman, & Saldaña, 2014).

It is apparent from the conceptual framework shown in Figure 2.1 that two sets of study variables guided the present study. These are independent variables and a dependent variable. Independent variables represent strategic change management and encompass technological innovations, strategic alliances, corporate culture, and management support. Performance of ADC is the dependent variable. Each of these variables has been operationalized. Technological innovations include blockchain, artificial intelligence, cloud native applications, disruptive innovations, and radical innovations. Collaborations, partnerships, joint ventures, and memorandum of understanding constitute the indicators of strategic alliances. Corporate culture is operationalized by culture gaps, clan culture, adhocracy culture, market culture, and hierarchy culture. Management support is in the form of technical support, financial support, training and development support, compensation adequacy, and leadership and/or mentorship. Performance is operationalized by service quality, customer satisfaction, effectiveness, and efficiency of ADC. The independent variables were hypothesized to influence the performance of ADC.

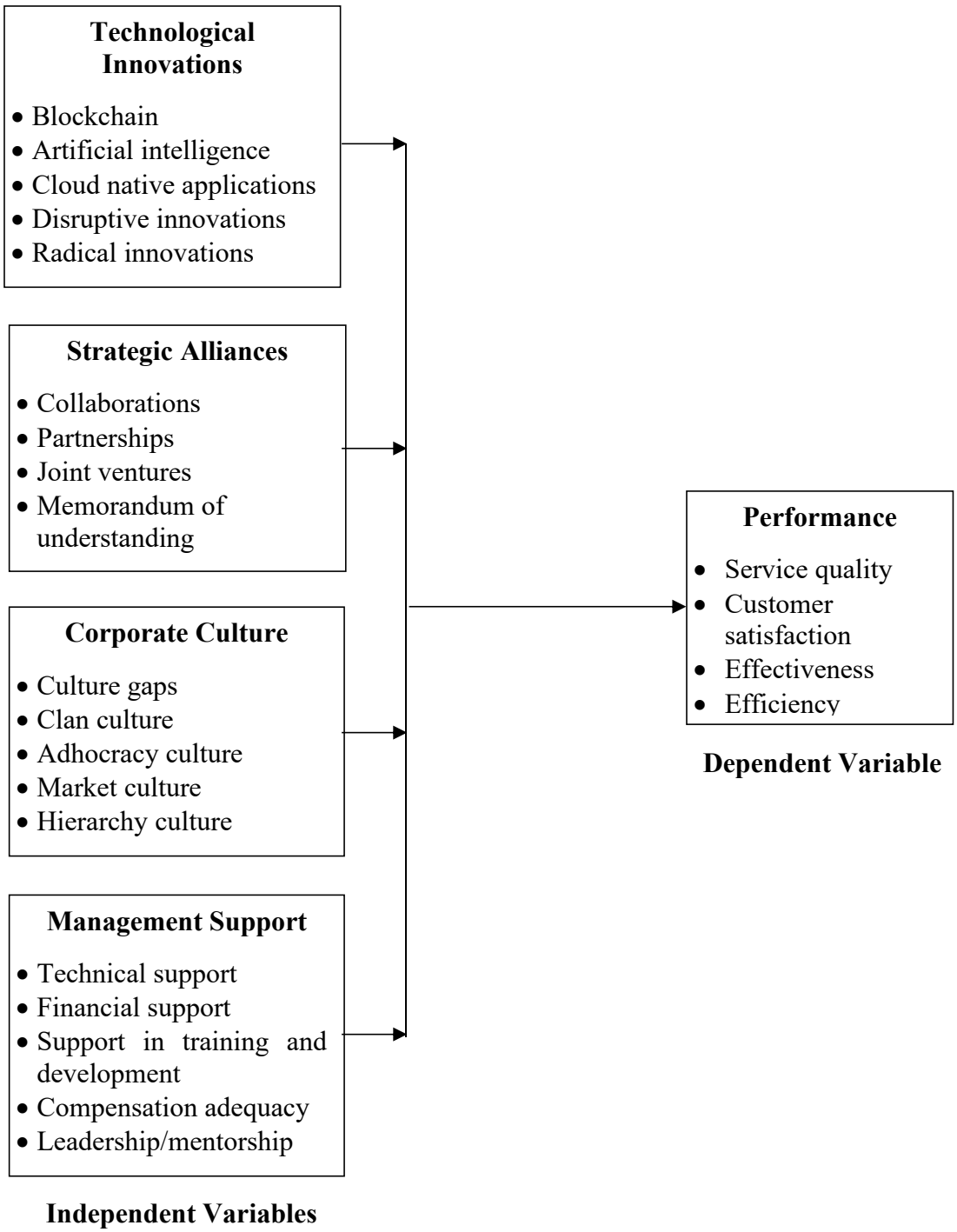


Figure 2.2: Conceptual framework showing the relationship between strategic

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design that acted as the blueprint of this study. It also outlines the target population, census design, data collection instrument and procedure. Other areas addressed in this chapter include pilot study, validity and reliability test, data analysis and presentation as well as ethical issues that the study considered.

3.2 Research Design

The choice of a research design is determined by several factors which include the nature of research objectives and research questions, practicalities and constraints (Solanki, 2022) . The overall objective of this study is to determine the effect of strategic change management on the performance of ADC. This implies that the research is of a causal-and-effect or explanatory nature. An explanatory research design was, therefore, adopted in this study. The choice of this design is informed by the fact that, the study was concerned with the relationship between strategic change management and performance. This means that the study examined the extent to which strategic change management explained performance of ADC. Explanatory research design is adopted in studies that seek to establish relationships between constructs (Silva, 2012). The adoption of this design was further founded on the fact that the study sought to examine the causal effect of various descriptors (technological innovations, strategic alliances, corporate culture, and management support) on the outcome variable (performance) in the case of ADC.

Besides the chosen research design, the study adopted quantitative methods and a deductive approach. Quantitative methods facilitated collection and analysis of numerical data while the deductive approach enabled drawing inferences and addressing research questions pertinent to strategic change management and performance. It is indicated that quantitative research involves the collection and analysis of numerical data, and it is crucial in making predictions and testing causal relationships (Woiceshyn&Daellenbach, 2018; Bhandari, 2020).

3.3 Target Population

The study targeted all the management staff of Agricultural Development Corporation. The foregoing number 51 staff as illustrated in Table 3.1 were the target population for this study. This is aligned to the description of the target population as a complete subset of the population of interest which puts into consideration factors of inclusion and exclusion (Casteel & Bridier, 2021). In the context of the present study, the target population also constituted the accessible population. This was founded on the fact that all the 51-management staff working with ADC were accessible within logistical, budgetary, and timeline constraints of this study. According to Fetzer (2020), accessible population refers to the part of the target population that is accessible by a researcher. It also describes the subset of the target population which can easily be reached when conducting research (Thacker, 2020).

Table 3.1: Distribution of ADC Management Staff

Designation	Number
Managing Director	1
Heads of Division	6
Heads of Department	10
Regional Managers	3
Unit Managers	31
Total	**51**

Source: Agricultural Development Corporation (2023)

3.4 Census Design

The census design was adopted mainly due to the significantly small size of the target (accessible) population of 51 management staff. The design was also employed because it enhances the reliability and generalizability of the study findings to the target population. Indicatively, a population census is considered to be the most reliable source of data for research (Elżbieta, 2016) . Therefore, all the 51-management staff shown in Table 3.1 who were in-post were enumerated.

3.5 Data Collection Instrument

A research questionnaire was used to collect data. Questionnaires are highly suitable for survey studies similar to the present research (Young, 2016). The questionnaire was structured in line with the quantitative research method. Therefore, the questionnaire facilitated the collection of numerical data with respect to strategic change management (technological innovations, strategic alliances, corporate culture, and management support) and performance of ADC. It is further indicated that a census questionnaire is a typical example of a structured questionnaire (Cheung, 2014). In reflection, the present study adopted a census approach in data collection. The questions or data items on the aforementioned study constructs were on a Likert scale of 5 points.

3.6 Data Collection Procedure

The structured questionnaire was used to collect data. However, prior to data collection, a letter of introduction was obtained from St. Paul's University. Using the aforementioned letter, a research permit was applied to the National Commission of Science, Technology and Innovation (NACOSTI). In addition, the researcher obtained a letter from Institutional Scientific Ethics and Research Committee (ISERC). The consent of the Management staff of ADC was also sought before administering questionnaires to the respondents. The questionnaires were issued to the respondents physically and through emails. The latter was followed by telephone calls for clarification purposes. The data collection process took approximately two weeks since most of the data were collected through email.

3.7 Pilot Study

A pilot study was carried out before conducting the main study. The pilot study is described as a small-scale study that assists in planning and modification of the main study (Thabane, et al., 2010). The pilot study was carried out in Kenya Agricultural and Livestock Research Organization (KALRO) and involved 6 participants. The sample of a pilot study ought to be 10% of the projected sample for the parent (or main) study (Connelly, 2008). This is approximately 10% of the population of the main study (51 management staff). It is stated that a pilot study can be conducted externally and independent of the main study (In, 2017). This assertion informed the choice of KALRO (a state corporation under the Ministry of Agriculture, just like ADC) as the scope for the pilot study. The choice ensured that participants of the pilot study were excluded from the main study.

The results of the pilot study were used to determine both the validity and reliability of the data collection instrument. According to In (2017), the pilot study is also used

to validate the feasibility of the main study by assessing various aspects which include exclusion and inclusion criteria of study's participants, training of researchers and research assistants, and testing of measurement instruments (Benger, et al., 2016). In the context of the present research, a pilot study was conducted with the aim of assessing the validity and reliability of the research questionnaire.

3.7.1 Validity Test

Validity test was conducted purposely to assess the extent to which the structured questionnaire enabled the study to address the objectives regarding strategic change management and performance of ADC. Validity is essentially described as a measure of what is purported to be measured (Taherdoost, 2016). This study was concerned with establishing the content validity of the questionnaire. This validity refers to the extent to which data items of a given research instrument reflect the content universe to which the data collection tool will be generalized (Straub, Boudreau, & Gefen, 2004). The expert opinion of research supervisors assigned by St. Paul's University was employed to assess the content validity of the questionnaire. It is asserted that the judgmental approach of experts in the respective field is required to determine the content validity of a data collection instrument (Taherdoost, 2016).

3.7.2 Reliability Test

Besides their use in determining the validity of the research questionnaire, the results of the pilot study were used to test the consistency (reliability) of the said instrument. Reliability is described as the degree to which a measurement (research tool) of a given phenomenon (study) provides consistent and stable results. Reliability is also a measure of the replicability of study results (Huck, 2012). In measuring the internal consistency of the research questionnaire, the Cronbach's alpha coefficient was

employed. The choice of this test is because the research questionnaire contained data items on a Likert scale. It is indicated that the aforementioned coefficient is the most suitable measure of reliability when Likert scales are used (Robinson, 2009) . The minimum acceptable coefficient was 0.7. This follows Hinton, Brownlow, McMurray and Cozens' (2004) postulation that values ranging from 0.7 to 0.9 are considered to be high reliability while those above 0.9 are stated to be excellent reliability. All the five study constructs returned alpha coefficients greater than 0.7. Consequently, the questionnaire was determined to be reliable for use in the collection of data for the main study.

3.8 Data Analysis and Presentation

The collected data were subjected to screening to ensure their completeness and appropriateness hence reducing or eliminating outliers. The aforementioned procedure was important in enhancing the reliability and credibility of the study findings. This was followed by coding, entering, and analyzing the 'clean' data with the assistance of the Statistical Package for Social Sciences (SPSS). Precisely, descriptive statistics as well as inferential statistics were used in data analysis. Descriptive statistics included measures of distribution, central tendencies, and variation. Inferential statistics encompassed correlation and regression analyses. However, before undertaking inferential statistical analysis, relevant diagnostic tests were conducted. The diagnostic tests feasible with categorical data (ordinal data) to which this study was delimited are linearity and multicollinearity tests. Such tests are important since they enable the determination of the types of inferential statistics that are viable for a given study. The following empirical models guided the regression analysis.

$$Y_1 = \beta_0 + \beta_1 X_1 + \varepsilon \quad \text{i}$$

$$Y_2 = \beta_0 + \beta_2 X_2 + \varepsilon \quad \text{ii}$$

$Y_3 = \beta_0 + \beta_3 X_3 + \varepsilon$ iii

$Y_4 = \beta_0 + \beta_4 X_4 + \varepsilon$ iv

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

Where:

Y_1 = Dependent variable (performance)

$X_1 - X_4$ = Independent variables (technological innovations, strategic alliances, corporate culture, and management support)

β_0 = Constant

$\beta_1 - \beta_4$ = Coefficients of independent variables

ε = Error term

The results of the analysis were presented in form of tables. Importantly, data analysis and presentation of findings were aligned to the objectives of the study which were delimited to strategic change management and performance of ADC.

3.9 Ethical Considerations

It was ensured that the study was limited to the purpose for which it was conducted. This means the study findings are only applicable to academic purpose. Participation of the managers in the study was voluntary. The participants were required to sign a consent form before they were allowed to take part in the study. Any participant was allowed to drop out from taking part in the study unconditionally if they so wished. The study did not make any attempt to infringe on the privacy of the respondents, for instance, by including questions that would have been perceived to be 'too personal'. Before conducting the study, a research permit was obtained from NACOSTI as well as a clearance letter from ISERC. These are mandatory documents before collecting any data as far as SPU's requirements are concerned.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 Introduction

In this chapter, the demographic information of the management staff working with the ADC is put into perspective. Results of both descriptive and inferential statistical analyses are presented as well. The presentation of the aforementioned results is in graphical and tabular formats. These results are interpreted and discussed relative to previous empirical findings.

4.2 Results of Validity and Reliability Tests

In order to assess the validity and reliability of the data collection instrument, a pilot study was conducted. The study conducted in KARLO involved 6 management staff. The content validity of the questionnaire was determined through consultation with the assigned supervisors from St. Paul University. This option of assessing the content validity was informed by the assertion that such validity cannot be tested statistically. The supervisors validated the content of the questionnaire where they observed that it contained data items (or indicators) that sufficiently addressed the study variables, that is, technological innovations, strategic alliances, corporate culture, management support, and performance.

The reliability of the questionnaire was tested using the Cronbach's alpha coefficient. The results of this effect are presented in Table 4.1.

Table 4.1: Reliability Test Results

Study Constructs	No. of Data (Test) Items	Cronbach's Alpha Coefficient
Technological innovations	10	0.839
Strategic alliances	8	0.904
Corporate culture	10	0.869
Management support	10	0.825
Performance	6	0.844
Overall reliability	**44**	**0.852**

According to the results shown in Table 4.1, it is evident that all the 5 study constructs, that is, technological innovations ($\alpha = 0.839$), strategic alliances ($\alpha = 0.904$), corporate culture ($\alpha = 0.0.869$), management support ($\alpha = 0.825$), and performance ($\alpha = 0.844$) returned alpha values that surpassed the minimum recommended threshold of $\alpha = 0.7$ (Hinton, et al., 2004). Individually, it was inferred that all the five variables were reliable. The overall reliability was also established to be above the aforementioned threshold ($\alpha = 0.852 > 0.7$). Therefore, the overall research questionnaire was concluded to be reliable for use in the collection of data for the main study. The results of both the validity and reliability tests indicated that there was no necessity of amending the questionnaire. Consequently, the questionnaire employed to collect data for the pilot study was used to collect data for the main study without any adjustments.

4.3 Response Rate

Response rate is described as the number of correctly filled and returned (or collected) survey questionnaires against the total number of such administered tothe respondents (Nulty, 2008). In the context of the present study, a total of 51 questionnaires were issued to the respondents relative to the unit of observation. Fifty questionnaires were filled as per the instructions and collected from the respondents. This translated to a 98.04% response rate. According to Nulty, a 65.0% response rate is considered adequate. Other sources indicate that a response rate estimated at 60.0% is the goal that many researchers pursue to achieve (Fincham, 2008). Reflectively, the response rate reported in this research study surpassed the threshold recommended by various scholars. Consequently, the reliability of the obtained results was equally enhanced.

4.4 Demographic Information

The demographics of interest were the working experience of the participating management staff. The results to this effect are presented in Table 4.2 and Table 4.3.

Table 4.2: Working experience with ADC

Working Experience in Years	Frequency	Percentage
Not more than 10	19	38.0
Greater than 10 but not more than 20	23	46.0
Greater than 20	8	16.0
Total	**50**	**100.0**

As illustrated in Table 4.2, it was observed that a majority (46.0%) of the management staff of the Agricultural Development Corporation had been working with the organization for a period exceeding 10 years but not surpassing 20 years.

Notably, 38.0% of these staff had worked in the corporation for a period of at most 10 years with only 16.0% having working experience of more than 20 years in the corporation. According to these results, it was clear that the management staff working in ADC had considerable working experience. It was also evident that, the organization considered, to a great extent, the working experience of staff before promoting them to the management level.

Table 4.3: Working Experience in Current Position

Working Experience in Years	Frequency	Percentage
Not more than 5	26	52.0
Above 5 but not more than 10	11	22.0
More than 10	13	26.0
Total	**50**	**100.0**

The results shown in Table 4.3 indicate that slightly more than half (52.0%) of the surveyed management staff had worked in the current position for a period of 5 years and below. Cumulatively, 74.0% of the management staff had worked in their current position for a duration of at most 10 years. Only 26.0% of the said employees had been in their present job designations for a period exceeding 10 years. The results were indicative of the fact that, at ADC, there was quite regular career progression and/or promotion of employees. The career progression depicted in the ADC is indicative of the organization's performance. It follows that in Kenya's public sector, career progression in respective organizations is undertaken contingent on their needs and objectives as well as the performance potential of employees (Republic of Kenya, 2018).

4.5 Descriptive Analysis

The study used frequencies, percentages, mean, and standard deviation to represent measures of distribution, measures of central tendencies, and measures of variation as descriptive statistics for strategic change management and performance of the ADC. Strategic change management was characterized by technological innovations, strategic alliances, corporate culture, and management support.

4.5.1 Descriptive Analysis of Technological Innovations

The views of the management staff working at the ADC drawn from the various units, regions, departments, and divisions of the organization were sought. The issues of interest revolved around the technological innovations in the ADC. The results to this effect are demonstrated in Table 4.4.

Table 4.4: Views of Management Staff on Technological Innovations

Propositions on Technological Innovations	SD (%)	D (%)	NAND (%)	A (%)	SA (%)	Mean	Std Dev
Disruptive innovations influence performance.	0	0	1 (2.0)	18 (36.0)	31 (62.0)	4.60	.535
Artificial intelligence affects performance.	0	0	2 (4.0)	39 (78.0)	9 (18.0)	4.14	.452
Cloud native applications significantly affect performance.	0	0	8 (16.0)	41 (82.0)	1 (2.0)	3.86	.405
Blockchain technology influences the performance of ADC.	0	1 (2.0)	9 (18.0)	38 (76.0)	2 (4.0)	3.82	.523
Radical innovations are a determining factor of performance.	0	2 (4.0)	22 (44.0)	25 (50.0)	1 (2.0)	3.50	.614
The organization uses cloud native applications.	0	1 (2.0)	45 (90.0)	4 (8.0)	0	3.06	.314
Technological innovations driven by blockchain technology are commonly used in ADC.	41 (82.0)	9 (18.0)	0	0	0	1.18	.388
It is evident that artificial intelligence is regularly used in the organization.	42 (84.0)	8 (16.0)	0	0	0	1.16	.370
Disruptive innovations are a common feature in ADC.	44 (88.0)	5 (10.0)	1 (2.0)	0	0	1.14	.405
In ADC, radical innovations are often used in the organization.	45 (90.0)	4 (8.0)	1 (2.0)	0	0	1.12	.385
Composite score						**2.76**	

In line with the descriptive results shown in Table 4.4, it was revealed that the vast majority of management staff were in strong agreement that disruptive innovations influenced the performance of ADC (strongly agreed = 62.0%). In respect of this assertion, the respondents were generally in strong concurrence and their views were also largely similar (mean = 4.60; std dev = 0.535). It was also observed that the management staff concurred that artificial intelligence affected performance (agreed/strongly agreed = 96.0%), that cloud native applications significantly affected the performance of ADC (agreed/strongly agreed = 84.0%), and that blockchain

technology influenced the performance of ADC (80.0%). The respondents were generally in agreement with the aforementioned propositions and their views did not vary significantly (mean ≈ 4.00; std dev < 1.000). These results were strongly in support of an earlier local study which indicated that technological innovations affected the performance of government agencies in Kenya (Mutie, 2018) . Agricultural Development Corporation is one of the government agencies in the country.

Inasmuch as 52.0% of the management staff opined that radical innovations were a determining factor of the ADC's performance, 44.0% were indifferent and 4.0% disagreed. On average, the respondents neither agreed nor disagreed with the assertion that the organization used cloud native applications (mean = 3.06). The respondents generally strongly disputed that technological innovations driven by blockchain technology were commonly used in ADC (mean = 1.18), it was evident that artificial intelligence was not regularly used in the organization (mean = 1.16), and that disruptive innovations were not a common feature in ADC (mean = 1.14). In respect of all the foregoing propositions, the participants possessed largely similar opinions (std dev < 1.000). Almost all the management staff who participated in the study strongly refuted that radical innovations were often used in the organization (strongly disagreed = 90.0%; mean = 1.12; std dev = 0.385). These results concurred with the findings of a previous study which indicated that in Nigeria, the government had not adequately advanced technological innovations in enhancing agricultural development (Rongjian, et al., 2019).

4.5.2 Descriptive Analysis on Strategic Alliances

The study also sought the views of the management staff regarding strategic alliances entered into by the ADC. These views are summarized in Table 4.5.

Table 4.5: Views of Management Staff on Strategic Alliances

Propositions on Strategic Alliances	SD (%)	D (%)	NAND (%)	A (%)	SA (%)	Mean	Std Dev
ADC has created several partnerships.	0	0	0	38 (76.0)	12 (24.0)	4.24	.431
Joint ventures rarely influence ADC's performance.	0	0	1 (2.0)	39 (78.0)	10 (20.0)	4.18	.438
ADC has entered into memoranda of understanding with various organizations.	0	0	0	41 (82.0)	9 (18.0)	4.18	.388
Agricultural Development Corporation has collaborated with various organizations on key issues.	0	0	0	41 (82.0)	9 (18.0)	4.18	.388
The partnerships influence the performance of ADC.	0	0	2 (4.0)	44 (88.0)	4 (8.0)	4.04	.348
Collaborations have influenced the performance of ADC.	6 (12.0)	36 (72.0)	6 (12.0)	1 (2.0)	1 (2.0)	2.10	.707
Memoranda of understanding have enhanced the performance of ADC.	12 (24.0)	33 (66.0)	5 (10.0)	0	0	1.86	.572
Joint ventures are a seldom feature in ADC.	48 (96.0)	2 (4.0)	0	0	0	1.04	.198
Composite score						**3.23**	

According to the results shown in Table 4.5, the surveyed management staff were in absolute agreement that ADC had created several partnerships (agreed/strongly agreed = 100.0%), the state corporation had entered into memoranda of understanding (MOU) various organizations (agreed/strongly agreed = 100.0%), and that the said

entity had collaborated with different organizations on key issues (agreed/strongly agreed = 100.0%). Expectedly, there was a general agreement on all the aforestated assertions with the respondents expressing largely similar views (mean > 4.00; std dev < 1.000). Similarly, it was observed that the respondents, on average, concurred that joint ventures rarely influenced the performance of ADC (mean = 4.18; std dev = 0.438).

Besides the two indifferent managers, the rest were in agreement that the performance of the ADC was influenced by partnerships (agreed/strongly agreed = 96.0%; mean = 4.04; std dev = 0.308). These findings partly supported results of a past study which indicated that strategic alliances (partnerships are part of this alliance) influenced the performance of Agriculture and Food Authority (Kai, 2021) . Nevertheless, it was generally disputed that the performance of the organization was influenced by collaborations (mean = 2.10), and MOU (mean = 1.86). In refuting these propositions, the respondents held largely similar views (std dev < 1.000). The management staff strongly disagreed that joint ventures were a seldom feature in ADC (strongly disagreed = 96.0%; mean = 1.04). The views of the respondents regarding this proposition were also established to be similar to a large extent (std dev = 0.198).

4.5.3 Descriptive Analysis on Corporate Culture

Regarding corporate culture, the views of the management staff of ADC were sought and analyzed. The distribution of these views, their average, and standard deviation are presented in Table 4.6.

Table 4.6: Views of Management Staff on Corporate Culture

Propositions on Corporate Culture	SD (%)	D (%)	NAND (%)	A (%)	SA (%)	Mean	Std Dev
Hierarchy culture (which is concerned with organizational structure where there is multi-levels of power i.e. directors, managers, supervisors, etc.) is practiced in ADC.	0	0	0	20 (40.0)	30 (60.0)	4.60	.495
Hierarchy culture influences performance of ADC.	0	0	1 (2.0)	39 (78.0)	10 (20.0)	4.18	.438
Market culture influences performance of ADC.	0	0	4 (8.0)	40 (80.0)	6 (12.0)	4.04	.450
Adhocracy culture influences performance.	0	1 (2.0)	5 (10.0)	35 (70.0)	9 (18.0)	4.04	.605
At ADC, there are crucial culture gaps.	0	0	9 (18.0)	36 (72.0)	5 (10.0)	3.92	.528
Culture gaps influence performance of ADC.	0	0	9 (18.0)	37 (74.0)	4 (8.0)	3.90	.505
Clan culture influences performance.	17 (34.0)	27 (54.0)	6 (12.0)	0	0	1.78	.648
Clan culture is practiced at ADC, i.e. there is a family-like collaboration among the organization's employees.	21 (42.0)	24 (48.0)	5 (10.0)	0	0	1.68	.653
Market culture (a culture that emphasizes competitiveness amongst employees and also inter-organizations) is encouraged in ADC.	30 (60.0)	18 (36.0)	2 (4.0)	0	0	1.44	.577
Adhocracy culture (i.e. risk-taking culture where employees are encouraged and motivated to be innovative and creative) is practiced in ADC.	34 (68.0)	14 (28.0)	2 (4.0)	0	0	1.36	.563
Composite score						**3.09**	

The results shown in Table 4.6 indicate that all the respondents agreed that hierarchy culture was practiced in ADC. While expressing negligible variation, the respondents were generally in strong agreement with the aforementioned assertion (mean = 4.60; std dev = 0.495). While expressing largely similar views, on average, the respondents admitted that hierarchy, market, and adhocracy cultures influenced the performance of ADC (mean ≈ 4.00; std dev < 1.000). A majority of the surveyed management staff concurred that there were crucial cultural gaps at ADC (agreed/strongly agreed = 82.0%), and that the said gaps influenced the organization's performance (agreed/strongly agreed = 82.0%).

It was, however, generally disputed that clan culture was practiced at ADC (mean = 1.68; std dev = 0.653), and that such culture influenced the performance of the organization (mean = 1.78; std dev = 0.648). Interpretively, it is not in order to state that at ADC there was a family-like collaboration among the employees in the organization. Therefore, there were only very minimal chances that such a culture would affect the ADC's performance.

With the exception of only 4.0%, the rest of the management staff either disputed or strongly disputed that market culture was encouraged in the ADC and that adhocracy culture was practiced in the organization. Generally, it was strongly disputed that, at ADC, there was a culture that emphasized competitiveness amongst employees (mean = 1.44; std dev = 0.577). Moreover, it was strongly refuted that the ADC encouraged and motivated its employees to be risk-takers, innovative as well as creative (mean = 1.36; std dev = 0.563). The foregoing could have been attributed largely to the fact that, being a state corporation, ADC was not primarily concerned with making profits which are associated with risk-taking, innovativeness, and creativity. Though previous

studies have not narrowed down to the specific types of organizational culture and their effect on performance, their findings have a common denominator with the present study in that they have alluded to the corporate culture affecting the performance of state corporations (Mose, 2017; Ngara, 2018; Maya, et al., 2018).

4.5.4 Descriptive Analysis of Management Support

The aspect of management support was examined in the context of the Agricultural Development Corporation. To this effect, the views of the management staff regarding management support in the organization were sought. These views are presented in form of frequencies, percentages, mean, and standard deviation as shown in Table 4.7.

Table 4.7: Views of Management Staff on Management Support

Propositions on Management Support	SD (%)	D (%)	NAND (%)	A (%)	SA (%)	Mean	Std Dev
Employees' compensation influences the performance of ADC.	0	0	0	6 (12.0)	44 (88.0)	4.88	.328
Training and development support positively influences performance of ADC.	0	0	0	8 (16.0)	42 (84.0)	4.84	.370
Performance of ADC is influenced by financial support.	0	0	0	12 (24.0)	38 (76.0)	4.76	.431
Technical support influences performance of ADC.	0	0	0	16 (32.0)	34 (68.0)	4.68	.471
The management of ADC offers technical support to its employees.	0	0	0	38 (76.0)	12 (24.0)	4.24	.431
Mentorship programs influences the performance of ADC.	0	1 (2.0)	5 (10.0)	26 (52.0)	18 (36.0)	4.22	.708
Employees of ADC receives financial support from the organization in various forms.	0	1 (2.0)	48 (96.0)	1 (2.0)	0	3.00	.202
The management of ADC offers mentorship programs to the staff.	24 (48.0)	21 (42.0)	5 (10.0)	0	0	1.62	.667
The management of ADC facilitates regular training and development of all staff.	41 (82.0)	9 (18.0)	0	0	0	1.18	.388
The staff of ADC are compensated sufficiently where their remuneration is in line with the market rate.	42 (84.0)	8 (16.0)	0	0	0	1.16	.370
Composite score						**3.46**	

As illustrated in Table 4.7, it was generally strongly agreed that the performance of ADC was influenced by the compensation of employees (mean = 4.88; std dev =

0.328), training and development support (mean = 4.84; std dev = 0.370), financial support (mean = 4.76; std dev = 0.431), and technical support (mean = 4.68; std dev = 0.471). Indicatively, the respondents had very minimal variation in their views regarding the aforementioned propositions.

All the respondents either agreed (76.0%) or strongly agreed (24.0%) that the management of ADC offered technical support to its employees. On average, it was admitted that mentorship programs influenced the performance of this organization (mean = 4.22; std dev = 0.708). The respondents were largely unanimous by holding a generally neutral position regarding the employees of ADC receiving financial support from the organization in a variety of forms (mean = 3.00; std dev = 0.202). On average, the respondents held largely similar views in disputing that the management of ADC offered mentorship programs to the staff (mean = 1.62; std dev = 0.667).

With very minimal variation in their views, the management staff generally strongly dismissed the assertions that the ADC's management facilitated regular training and development to all staff (mean = 1.18; std dev = 0.388), and that the organization's staff were compensated sufficiently in that they were remunerated in tandem with the prevailing market rates (mean = 1.16; std dev = 0.370).

4.5.5 Descriptive Analysis of Performance of ADC

The views of the management staff of the ADC were also obtained with regard to the performance of the organization particularly over the past 10 years dating back to 2014. The pertinent results are illustrated in Table 4.8.

Table 4.8: Views of Management Staff on Performance of ADC

Propositions on Performance	SD (%)	D (%)	NAND (%)	A (%)	SA (%)	Mean	Std Dev
ADC offers services of high quality to its clients.	7 (14.0)	33 (66.0)	9 (18.0)	1 (2.0)	0	2.08	.634
The labour force of ADC has increased considerably over the past 10 years.	8 (16.0)	41 (82.0)	1 (2.0)	0	0	1.86	.405
The productivity of ADC has significantly increased in the past 10 years.	10 (20.0)	39 (78.0)	1 (2.0)	0	0	1.82	.438
ADC has become more efficient over the period of the past 10 years.	11 (22.0)	38 (76.0)	1 (2.0)	0	0	1.80	.452
Comparatively, ADC has become more effective over the period of the past 10 years.	13 (26.0)	36 (72.0)	1 (2.0)	0	0	1.76	.476
ADC offers excellent customer satisfaction (above 8 in a scale of 1 – 10).	26 (52.0)	23 (46.0)	0	1 (2.0)	0	1.52	.614
Composite score						**1.81**	

Illustratively (Table 4.8), the management staff who participated in the study generally and almost unanimously disputed all propositions put across with regard to various issues touching on the performance of ADC (mean ≈ 2.00; std dev < 1.000). Put into perspective, it was disputed by a majority of the respondents that ADC offered high quality services to its clients (disagreed/strongly disagreed = 80.0%). The respondents refuted to a large extent (disagreed/strongly disagree = 98.0%) that, over the past 10 years, the organization's labour force had increased considerably, the corporation's productivity had significantly increased, and the organization had become more efficient. It was equally dismissed by a majority of the respondents (disagree/strongly disagreed = 98.0%) that the ADC had become comparatively more

effective. A similar proportion of respondents disputed that the organization offered excellent customer satisfaction exceeding 8 points in a scale of 1 to 10. It is imperative to infer from these findings that, the ADC had fallen short of the expected performance for the period of the past 10 years.

4.6 Inferential Analysis

The inferential analysis comprised correlation and regression analyses. However, prior to undertaking inferential statistical analyses, pertinent diagnostic tests were conducted.

4.6.1 Diagnostic Tests

Given that the collected data were in ordinal scale, only the linearity and multicollinearity tests were viable. The results of these tests are presented in Table 4.9 and Table 4.10. Under linearity in bivariate relationships and/or regression models, it is assumed that the dependent variable is a linear function of the independent variable (Niermann, 2007). This means that it is assumed that there exists a linear relationship between independent and dependent variables. The aforementioned diagnostic test was conducted because it is affirmed that ordinal variables can be tested for their linearity (Gertheiss & Oehrlein, 2011) . In the context of the present study, the linearity test was conducted with respect to the relationship between each of the predictor variables (technological innovations, strategic alliances, corporate culture, and management support) and the outcome variable (performance of ADC). Deviation from linearity is used to illustrate the significance (or lack thereof) of the linearity of the respective sets of variables since it is one of the proposed parameters for assessing linearity (Liu, Chow, & Hsieh, 2009). The pertinent results are presented summarily in Table 4.9.

Table 4.9: Summarized Results of Linearity Test

		Sum of Squares	df	Mean Square	F	Sig.
Performance * Technological Innovations	(Combined)	3.355	10	.335	9.616	.000
	Linearity	2.864	1	2.864	82.101	.000
	Deviation from Linearity	.491	9	.055	1.562	.161
Performance * Strategic Alliances	(Combined)	1.174	6	.196	2.375	.045
	Linearity	.261	1	.261	3.166	.082
	Deviation from Linearity	.913	5	.183	2.217	.070
Performance * Corporate Culture	(Combined)	.495	8	.062	.601	.771
	Linearity	.344	1	.344	3.338	.075
	Deviation from Linearity	.152	7	.022	.211	.981
Performance * Management Support	(Combined)	1.628	7	.233	3.164	.009
	Linearity	1.009	1	1.009	13.731	.001
	Deviation from Linearity	.619	6	.103	1.403	.236

According to the results shown in Table 4.9, it was established that the relationship between technological innovations and performance was linear (deviation from linearity, $p = 0.161 > 0.05$). In respect of strategic alliances and performance, the sig. deviation from linearity = 0.070 > 0.05. These results were interpreted to imply that the relationship between these two variables was linear. Moreover, the sig. deviation from linearity concerning corporate culture and performance is 0.981 which is greater than 0.05. Therefore, there existed a linear relationship between the two study constructs. The relationship between management support and performance of ADC was further observed to be linear since sig. deviation from linearity = 0.236 > 0.05.

Conclusively the linearity assumption was met by all the predictor variables relative to the dependent variable, thus allowing for conducting of linear analysis (correlation and regression analyses).

Multicollinearity exists when there is intercorrelation between predictor variables in a multiple regression model. It is postulated multicollinearity is witnessed in the aforementioned regression analysis when more than two of the included (independent) variables are significantly correlated with the dependent variable as well as to each other. When not addressed, multicollinearity may be problematic to the multiple regression model since it increases the standard errors thus compromising the statistical significance of the regression coefficients in the model (Shrestha, 2020).

Multicollinearity is tested using the Variance Inflation Factor (VIF) and Tolerance (T). These two metrics are reciprocal to each other with the former parameter being the most commonly used. In order to rule out the multicollinearity, the results must be within a threshold of not more than 10, otherwise higher values of VIF are considered problematic to the multiple regression model. The results of multicollinearity testing are presented in Table 4.10.

Table 4.10: Results of Multicollinearity Test

	Collinearity Statistics	
Independent Variables	**Tolerance**	**VIF**
Technological Innovations	.922	1.085
Strategic Alliances	.830	1.205
Corporate Culture	.828	1.207
Management Support	.924	1.082

According to the results of the multicollinearity test shown in Table 4.10, all the independent variables return VIF and tolerance less than 10 and above 0.1 respectively. The acceptable multicollinearity threshold should not exceed VIF = 10 or fall below tolerance = 0.1. Therefore, technological innovations (VIF = 1.085; tolerance = 0.922), strategic alliances (VIF = 1.205; tolerance = 0.830), corporate culture (VIF = 1.207; tolerance = 0.828), and management support (VIF = 1.082; tolerance = 0.924). The results led to the conclusion that there was no multicollinearity problem that would have, otherwise, warranted a re-modelling of the multiple regression model.

4.6.2 Spearman Correlation Coefficient

The Spearman rank's correlation coefficient (ρ) is highly recommended for use in determining the relationship between variables particularly in the case of ordinal data (Campbell & Swinscow, 2009). The foregoing assertion justified the adoption of ρ in assessing the correlation between strategic change management constructs (technological innovations, strategic alliances, corporate culture, and management

support) and performance of ADC. The results of correlation analysis are presented in Table 4.11.

Table 4.11: Spearman Rank Correlation Matrix

Spearman's rho	**Technological Innovations**	Correlation Coefficient	1.000				
		Sig. (2-tailed)	.				
		N	50				
	Strategic Alliances	Correlation Coefficient	.314*	1.000			
		Sig. (2-tailed)	.026	.			
		N	50	50			
	Corporate Culture	Correlation Coefficient	.192	.466**	1.000		
		Sig. (2-tailed)	.182	.001	.		
		N	50	50	50		
	Management Support	Correlation Coefficient	.143	.200	.124	1.000	
		Sig. (2-tailed)	.323	.164	.391	.	
		N	50	50	50	50	
	Performance	Correlation Coefficient	.496**	.319*	.526*	.602**	1.000
		Sig. (2-tailed)	.000	.024	.003	.000	.
		N	50	50	50	50	50

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

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

According to the results shown in Table 4.11, it was revealed that the relationship between four of the independent variables (technological innovations, strategic alliances, corporate culture, and management support) and performance was statistically significant at p-value = 0.05. There existed a positive, moderately strong, and statistically significant relationship between technological innovations and the performance of ADC ($\rho = 0.496$; $p = 0.000$). The results meant that improving or increasing the technological innovations in the ADC was likely to enhance the organization's performance to a moderate extent. These results supported the findings

of an earlier study which indicated that the tenets of technological development had a positive correlation with the performance of government agencies in Kenya (Mutie, 2018).

The relationship between strategic alliances and performance was established to be positive, weak but statistically significant at p-value = 0.05 ($\rho = 0.319$; $p = 0.024$). Interpretively, increasing and/or enhancing strategic alliances with other entities was likely to result in minimal, though substantial, improvement in the performance of ADC. The results of these studies were in concurrence with the findings of a previous local study which stated that strategic alliance and performance of Agriculture and Food Authority had a positive, and significant relationship (Kai, 2021).

According to the correlation results, corporate culture was observed to have a positive, moderately strong, and statistically significant relationship with the performance of the ADC ($\rho = 0.526$; $p = 0.003 < 0.05$). The results meant that any changes in the corporate culture practiced in ADC were likely to have a substantial effect on the performance of the organization. Further interpretation indicated that corporate culture was crucial concerning the performance of ADC. The foretasted findings tallied with the results of a previous study which indicated that there existed a positive correlation between corporate culture and the performance of the Kenya Power and Lighting Company (Ngara, 2018)..

It was further established that there existed a positive, moderately strong, and statistically significant relationship between management support and performance of ADC ($\rho = 0.602$; $p = 0.000 < 0.05$). Enhancing the support of the management, particularly from the top management, was likely to moderately and considerably improve the performance of the state corporation. The results underlined the

likelihood of management support being the most important aspect of strategic change management relative to the performance of ADC.

4.6.3 Simple Linear Regression Analysis

Simple linear regression is conducted to determine the extent to which individual independent variables affect the dependent variable. In the context of the present study, simple linear regression was carried out to demonstrate the effect of technological innovations, strategic alliances, corporate culture, and management support on the performance of ADC. The pertinent results are presented in Tables 4.12 to 4.22.

Table 4.12: Model Summary of Performance against Technological Innovations

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.779[a]	.607	.599	.19639

a. Predictors: (Constant), Technological Innovations

The results of the coefficient of determination ($r^2 = 0.607$) meant that technological innovations explained 60.7% of the variation in the performance of ADC. The results of adjusted $r^2 = 0.599$ imply that technological innovations had more than average predictive value of the performance of ADC. In other words, the stated innovations could have more than half (50%) predictive value of the corporation's performance.

Table 4.13: ANOVA of Performance against Technological Innovations

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.864	1	2.864	74.268	.000[a]
	Residual	1.851	48	.039		
	Total	**4.716**	**49**			

a. Predictors: (Constant), Technological Innovations

b. Dependent Variable: Performance

The results of F-statistic, F (1, 48) = 74.268; p = 0.000 < 0.05 were found to be statistically significant. The results were interpreted to mean that there existed a linear relationship between technological innovations and performance. Therefore, the simple linear regression model ($Y = \beta_0 + \beta_1 X_1 + \varepsilon$) was applicable in analyzing the effect of technological innovations on performance of ADC as shown in Table 4.14.

Table 4.14: Regression Coefficients of Performance against Technological Innovations

		Unstandardized Coefficients		Standardized Coefficients		
Model		**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	-.425	.290		-1.467	.149
	Technological Innovations	.880	.102	.779	8.618	.000

a. Dependent Variable: Performance

According to the results shown in Table 4.14 ($Y = -0.425 + 0.880X_1$), it was revealed that, while holding other factors constant, a single unit increase in the performance of ADC was subject to a 0.880 unit increase in technological innovations. It was further established that the effect of technological innovations on the performance of the stated corporation was statistically significant (t = 8.618; p = 0.000 < 0.05). The results underscored the important role played by technological innovations in the

performance of ADC. These results reinforced the findings of a past study which affirmed that technological development tenets influenced performance of government organization (Mutie, 2018).

Table 4.15: Model Summary of Performance against Strategic Alliances

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.235[a]	.055	.036	.30465

a. Predictors: (Constant), Strategic Alliances

The results shown in Table 4.15 ($r^2 = 0.055$) indicate that strategic alliances explained only 5.5% of the variation in the performance of ADC. Hence, the stated alliances had only minimal consequence on the performance of the aforementioned corporation. It was further revealed that strategic alliances offered only poor prediction of the ADC's performance (adjusted $r^2 = 0.055$).

Table 4.16: ANOVA of Performance against Strategic Alliances

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.261	1	.261	2.809	.100[a]
	Residual	4.455	48	.093		
	Total	**4.716**	**49**			

a. Predictors: (Constant), Strategic Alliances

b. Dependent Variable: Performance

The results shown in Table 4.16 ($F_{1, 48} = 2.809$; $p = 0.100 > 0.05$) indicate that the F-statistic was not significant. Interpretively, the relationship between strategic alliances and performance was found not to be statistically significant. Therefore, the simple linear regression model ($Y = \beta_0 + \beta_2 X_2 + \varepsilon$) could not be viably used to demonstrate

the effect of strategic alliances on the performance of ADC. It is important to note that these results departed from the findings reported in a previous local study that strategic alliances had a significant effect on the performance of Agriculture Food Authority, which is one of the state corporations in Kenya (Kai, 2021).

Table 4.17: Model Summary of Performance against Corporate Culture

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.518[a]	.268	.253	.20180

a. Predictors: (Constant), Corporate Culture

The results of coefficient of determination ($r^2 = 0.268$) shown in Table 4.17 indicate that 26.8% of variation in the performance of ADC could be explained by corporate culture practiced in the corporation. The results (adjusted $r^2 = 0.253$) indicate that corporate culture was quite a significant predictor of the performance of ADC.

Table 4.18: ANOVA of Performance against Corporate Culture

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.344	1	1.344	17.574	.008[a]
	Residual	.732	48	.015		
	Total	**2.076**	**49**			

a. Predictors: (Constant), Corporate Culture

b. Dependent Variable: Performance

The results of F-statistic shown in Table 4.18 ($F_{1, 48} = 17.574$; $p = 0.008 < 0.05$) were found to be statistically significant. This means the data in respect of corporate culture and performance not fitted the adopted simple linear regression model ($Y = \beta_0 + \beta_3 X_3 + \varepsilon$). Consequently, the model was applicable in determining the extent of effect

of corporate culture on performance of ADC. In this study, the effect of corporate culture on the performance of ADC was statistically significant. This was in concurrence with the results of a study conducted in Indonesia which established that corporate culture had a substantial influence on the corporate performance of state-owned enterprises in the country (Maya, et al., 2018).

Table 4.19: Regression Coefficients of Performance against Corporate Culture

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	-.331	.210		-1.640	.211
Corporate culture	1.274	.233	.542	4.281	.008

a. Dependent Variable: Performance

The results shown in Table 4.19 ($Y = -0.331 + 1.274X_3$) indicate that for the performance of ADC to be increased by a single unit, the corporate culture exercised in the organization ought to be enhanced by 1.274 units while other factors were held constant. It was further revealed that the effect of stated culture has a statistically significant effect on the performance of the corporation ($t = 4.281$; $p = 0.008 < 0.05$). These results underscored the important role played by corporate culture concerning the performance of ADC. On the same note, it was inferred that by upholding the right culture, the corporation could widen the latitude of its performance to a substantial extent.

Table 4.20: Model Summary of Performance against Management Support

Model	r	r Square	Adjusted r Square	Std. Error of the Estimate
1	.463[a]	.214	.198	.27787

a. Predictors: (Constant), Management Support

The results illustrated in Table 4.20 ($r^2 = 0.214$) established that management support explained 21.4% variation in the performance of ADC. It was further observed that management support was a good predictor of performance (adjusted $r^2 = 0.198$). The results demonstrated the importance of management support to the performance Agricultural Development Corporation.

Table 4.21: ANOVA of Performance against Management Support

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.009	1	1.009	13.072	.001[a]
	Residual	3.706	48	.077		
	Total	**4.716**	**49**			

a. Predictors: (Constant), Management Support

b. Dependent Variable: Performance

The results of F-statistics shown in Table 4.21 ($F_{1, 48} = 13.072$; $p = 0.001 < 0.05$) were found to be statistically significant. This affirmed the linearity of the relationship between management support and the performance of ADC in line with the adopted model: $Y = \beta_0 + \beta_4 X_4 + \varepsilon$. Therefore, the foretasted model was viably applied to determine the effect of management support on the performance of the corporation as shown in Table 4.22.

Table 4.22: Regression Coefficients of Performance against Management Support

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
1 (Constant)	-1.189	.900		-1.321	.193
Management Support	.940	.260	.463	3.616	.001

a. Dependent Variable: Performance

The results shown in Table 4.22 ($Y = -1.189 + 0.940X_4$) indicated that a 0.940 unit increase in the management support ($\beta_4 = 0.940$) led to a single unit increase in the performance of ADC ($Y = 1$) while other factors were held constant ($\beta_0 = -1.189$). It was also revealed that the effect of management support on the performance of ADC was statistically significant ($t = 3.616$; $p = 0.001 < 0.05$). Inferentially, the results underlined the importance of management support concerning the performance of ADC.

4.6.4 Multiple Regression Analysis

The combined effect of strategic change management constructs (technological innovations, strategic alliances, corporate culture and management support) on the performance of ADC was determined using multiple regression analysis. The pertinent results are presented in Table 4.23, Table 4.24, and Table 4.25.

Table 4.23: Regression Weights for Overall Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845[a]	.713	.688	.17335

a. Predictors: (Constant), Technological Innovations, Strategic Alliances, Corporate Culture, Management Support

As shown in Table 4.23, the general relationship between strategic change management (encompassing technological innovations, strategic alliances, corporate culture, and management support) and the performance of ADC was established to be positive and strong (R = 0.845). This meant that enhancing strategic change management was bound to result in improved performance of the corporation. It was also observed that strategic change management could explain 71.3% variability in the performance of ADC (R^2 = 0.713). Moreover, it was revealed that strategic change management was a strong predictor of performance (adjusted R^2 = 0.688). According to these findings, it was imperative to infer that strategic change management was very important to the performance of ADC.

Table 4.24: Significance Test Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.363	4	.841	27.982	.000[a]
	Residual	1.352	45	.030		
	Total	**4.716**	**49**			

a. Predictors: (Constant), Technological Innovations, Strategic Alliances, Corporate Culture, Management Support

b. Dependent Variable: Performance

The results shown in Table 4.24 ($F_{4, 45} = 27.982$; $p = 0.000 < 0.05$) indicated that the relationship between strategic change management (technological innovations, strategic alliances, corporate culture, and management support) and performance of ADC was statistically significant. Generally, there existed a linear relationship between strategic change management and performance. Therefore, the adopted multiple regression model ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$) was viably used in the analysis of the effect of strategic change management on performance of ADC. The results of the analysis using the aforementioned model are illustrated in Table 4.25.

Table 4.25: Results for Overall Model

	Unstandardized Coefficients		Standardized Coefficients		
Model	**B**	**Std. Error**	**Beta**	**t**	**Sig.**
1 (Constant)	-2.799	.707		-3.959	.000
Technological Innovations	.796	.094	.705	8.481	.000
Strategic Alliances	.017	.147	.010	.118	.906
Corporate Culture	.611	.168	.058	2.662	.001
Management Support	.639	.169	.315	3.788	.000

a. Dependent Variable: Performance

The results shown in Table 4.25 were used to substitute the model: $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$ as follows.

$Y = -2.799 + 0.796X_1 + 0.017X_2 + 0.611X_3 + 0.639X_4$

Interpretively, a unit change (increase) in the performance of ADC required 0.796 unit, 0.017 unit, 0.611 unit, and 0.639 unit increments in technological innovations, strategic alliances, corporate culture, and management support respectively while other factors were held constant (β_0 = -2.799). According to these results, technological innovations and strategic alliances were found to be the most and least important aspects of strategic management respectively with regard to the performance of ADC.

The results further indicated that technological innovations ($t = 8.481$; $p = 0.000 < 0.05$), corporate culture ($t = 2.662$; $p = 0.001 < 0.05$), and management support ($t = 3.788$; $p = 0.000 < 0.05$) had statistically significant effect on the performance of ADC. However, the effect of strategic alliances ($t = 0.118$; $p = 0.906 > 0.05$) on performance of ADC was not statistically significant. The results led to the inference whereas technological innovations, corporate culture, and the management support were substantial factors of strategic change management, strategic alliances entered into were not substantial considerations with regard to the performance of ADC.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the key study findings are summarized. It also outlines the conclusions drawn from the major study findings followed by recommendations relative to strategic change management and performance of ADC.

5.2 Summary

The findings are summarized following technological innovations, strategic alliances, corporate culture, and management support relative to the performance of ADC.

5.2.1 Effect of Technological Innovations on Performance

Some of the technological innovations including disruptive innovations, artificial intelligence, cloud native applications, and blockchain technology were found to influence the performance of the ADC. The influence of radical innovations on the performance of ADC drew mixed reactions from the management staff of the state corporations. Notably, blockchain technological innovations were quite uncommon in ADC. Despite their potential influence on performance, artificial intelligence, disruptive innovations, and radical innovations were not common features of technological innovations in ADC. Technological innovations significantly affected the performance of the aforementioned organization.

5.2.2 Effect of Strategic Alliances on Performance

According to the study findings, ADC had entered into several partnerships, MOUs, and collaborations with several different organizations. This notwithstanding, joint ventures, which are part of strategic alliances, hardly influenced the performance of the aforementioned corporation despite being a common feature in the organization.

Unlike partnerships which influenced performance of ADC, collaborations did not. Strategic alliances were found to be hardly consequential to the performance of the organization.

5.2.3 Effect of Corporate Culture on Performance

Unlike hierarchy culture which was practiced in ADC, the clan culture, adhocracy culture and the market culture were neither practiced nor encouraged in the corporation. This is despite the latter culture alongside the hierarchy and adhocracy culture having been established to be influential to the performance of ADC. It was as well noted that there existed cultural gaps in the organization which affected the corporation's performance. Corporate culture substantially affected the performance of ADC.

5.2.4 Effect of Management Support on Performance

The study observed that employees' compensation, training and development support, financial support as well as technical support influenced the performance of Agriculture Development Authority. Further observation indicated that employee mentorship programs influenced the performance of ADC. However, such programs were hardly offered by the corporation. There were mixed reactions regarding the ADC offering financial support to its employees. It was further revealed that the organization did not hold regular staff training and development. The corporation's staff were not compensated sufficiently particularly when juxtaposed to the prevailing labour market rates. The support extended by the management of the ADC was very instrumental to the performance of the corporation.

5.2.5 Effect of Strategic Change Management on Performance

It was observed that the services offered by ADC could not be considered to be of high quality. The labour force working in the corporation had remained largely the same since 2013. The organization had not reported significant increase in its productivity over the past 10 years and its efficiency and effectiveness had not improved over the aforementioned time period. It would be misleading to insinuate that ADC offered excellent customer satisfaction. Generally, all the surveyed components of the strategic change management had a combined significant effect on the performance of ADC. Notably, in the presence of all the four constructs, a majority of the indicators of strategic change management had substantial effect on the corporation's performance.

5.3 Conclusions

In reference to the construct of technological innovations, it was inferred that several such innovations comprising artificial intelligence, blockchain technology, cloud native applications as well as disruptive innovations were influential to the performance of ADC. This is despite a majority of them being quite rare in the corporation. Therefore, it was imperative to conclude that the stated influence of the technological innovations was largely hypothetical. On the same breadth, the potential of these innovations with regard to the performance of ADC is what the study largely alluded to. It was further concluded that technological innovations were very important to the ADC due to their potential to increase the organization's performance.

With regard to strategic alliances, the findings of the study led to the conclusion that the ADC had entered into partnerships, collaborations, and MOUs with various organizations. Joint ventures were the commonest alliances entered by the corporation.

Yet, these ventures alongside collaborations entered by ADC hardly influenced the performance of the organization. Out of the various strategic alliances entered by the corporation, only partnerships were concluded to be influential to the performance of the corporation.

In respect of corporate culture, the study concluded that clan culture, adhocracy culture and market cultures were not neither practiced nor encouraged in ADC. Paradoxically, both adhocracy and market cultures were inferred to be influential to performance of ADC. Hierarchy culture was practiced in ADC and was concluded to be important to the performance of the corporation. It was further concluded that there existed cultural gaps in ADC which also affected its performance. Generally, corporate culture was inferred to have significant effect on the performance of ADC.

Regarding management support, the study concluded that the performance of ADC was influenced by several pertinent factors which included support in training and development, financial support, technical support, and the compensation of employees. Support of employees through mentorship programs was inferred to be very important to the performance of the corporation. Yet, the study concluded such programs were a rare occurrence in the organization. It was quite a paradox that, despite their significant importance to the ADC's performance, financial support to the employees was not guaranteed. The same case applied to staff training and development as well as their compensation. The management support was concluded to be very instrumental to the performance of ADC.

5.4 Recommendations

Importantly, recommendations made from this study are purposely directed to the pertinent policy makers, practitioners, and the entities in the academia.

5.4.1 Recommendations for Policy

The policy makers at the ADC are recommended to consider integrating innovative technologies like artificial intelligence, blockchain technology, cloud native applications, and disruptive innovations given the findings that they were largely lacking in the corporation despite their potential to enhance the performance of the organization. It is important for the directorship and top management of ADC to enter into beneficial long-term partnerships, joint ventures, and collaborations with like-minded entities both in the private and public sectors in Kenya and beyond.

There should be policies that govern and lay down corporate culture framework in the organization. Such framework is anticipated to guide all levels of staff in ADC with the view of sustainably enhancing the corporation's performance. The top management is recommended to formulate sound policies that can guide in the training and development of the corporation's employees. They should also come with a strategy framework exposing on the mentorship programs, technical support as well as remuneration of employees.

5.4.2 Recommendations for Practice

The management staff working with ADC should ensure that they are conversant with the technological innovations already in place in their organization. Being digitally savvy and innovative is a recommendation that they should consider seriously. The management staff should also leverage all the partnerships, joint ventures, collaborations and any other strategic alliances entered by ADC for their individual and organizational advantage. The study recommends that the practitioners in the corporation should fully embrace and practice the cultures that are bound to improve

their individual performance as well as the overall performance of the organization while simultaneously avoiding cultures whose tenets are potentially detrimental.

Granted the fact their importance to the performance of ADC, it is recommended that the corporation should upscale the regularity of the staff's training and development and also accord them the pertinent technical and financial support at all levels of management. The departmental managers, in consultation with the top management, are advised to organize and facilitate regular training and development programmes for all cadres of staff. Such programmes ought to be held at least twice a year. The corporation should consider remunerating its staff such that their compensation should tally or exceed the labour market rates. The middle-level management of the corporation are advised to consider holding regular and sustainable mentorship programs for the entity's supervisory and general staff.

5.4.3 Suggestions for Further Studies

Strategic change management has been observed to be instrumental to the performance of ADC. Consequently, it is recommended that similar empirical studies can be conducted in other state corporations in Kenya. It would also be important to investigate the effect of strategic change management on other important organizational aspects like service delivery and strategic positioning. A comparative study of strategic change management and performance is recommended across profit-making state corporations (like Kenya Power and Kenya Airways) and those that are not structured to make profits (like National Hospital Insurance Fund and Rural Electrification Authority).

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APPENDICES

APPENDIX I

RESEARCH QUESTIONNAIRE FOR MANAGEMENT STAFF

This questionnaire is purposed to assist in collecting data from management staff of Agricultural Development Corporation on the empirical study titled: *Strategic change management and performance of Agricultural Development Corporation, Kenya*. You are requested to take part in the study by stating the extent of your agreement/disagreement with the issues captured under each section of this questionnaire. Kindly tick only once per each issue.

NB: Do not indicate your name on this questionnaire. Your identity will remain anonymous and all data collected from you will be treated with utmost confidentiality.

Section One: Demographic Information

1. How long have you worked with ADC?……
2. How long have you worked in your current position?……...

Section Two: Technological Innovations

Kindly state your views regarding ***technological innovations*** in ADC. Use the following Likert scale to illustrate your opinion.

1 = Strongly Disagree (SD); 2 = Disagree (D); 3 = Neither Agree nor Disagree (NAND); 4 = Agree (A); 5 = Strongly Agree (SA).

Propositions on Technological Innovations	**SD**	**D**	**NAND**	**A**	**SA**
Technological innovations driven by blockchain technology are commonly used in ADC.					
Blockchain technology influences the performance of ADC.					
It is evident that artificial intelligence is regularly used in the organization.					
Artificial intelligence affects performance.					
The organization uses cloud native applications.					
Cloud native applications affect performance.					
Disruptive innovations are a common feature in ADC.					

Disruptive innovations influence performance.					
In ADC, radical innovations are often used in the organization.					
Radical innovations are a determining factor of performance.					

Section Three: Strategic Alliances

Kindly state your views regarding ***strategic alliances*** in ADC. Use the following Likert scale to illustrate your opinion.

1 = Strongly Disagree (SD); 2 = Disagree (D); 3 = Neither Agree nor Disagree (NAND); 4 = Agree (A); 5 = Strongly Agree (SA).

Propositions on Strategic Alliances	**SD**	**D**	**NAND**	**A**	**SA**
Agricultural Development Corporation has collaborated with various organizations on key issues.					
Collaborations have influenced the performance of ADC.					
ADC has created several partnerships.					
The partnerships influence the performance of ADC.					
Joint ventures are a seldom feature in ADC.					
Joint ventures rarely influence ADC's performance.					
ADC has entered into memoranda of understanding with various organizations.					
Memoranda of understanding have enhanced the performance of ADC.					

Section Four: Corporate Culture

Kindly state your views regarding ***corporate culture*** in ADC. Use the following Likert scale to illustrate your opinion.

1 = Strongly Disagree (SD); 2 = Disagree (D); 3 = Neither Agree nor Disagree (NAND); 4 = Agree (A); 5 = Strongly Agree (SA).

Propositions on Corporate Culture	**SD**	**D**	**NAND**	**A**	**SA**
At ADC, there are crucial culture gaps.					
Culture gaps influence performance of ADC.					

Clan culture is practiced at ADC, i.e. there is a family-like collaboration among the organization's employees.					
Clan culture influences performance.					
Adhocracy culture (i.e. risk-taking culture where employees are encouraged and motivated to be innovative and creative) is practiced in ADC.					
Adhocracy culture influences performance.					
Market culture (a culture that emphasizes competitiveness amongst employees and also inter-organizations) is encouraged in ADC.					
Market culture influences performance of ADC.					
Hierarchy culture (which is concerned with organizational structure where there is multi-levels of power i.e. directors, managers, supervisors, etc.) is practiced in ADC.					
Hierarchy culture influences performance of ADC.					

Section Five: Management Support

Kindly state your views regarding ***management support*** in ADC. Use the following Likert scale to illustrate your opinion.

1 = Strongly Disagree (SD); 2 = Disagree (D); 3 = Neither Agree nor Disagree (NAND); 4 = Agree (A); 5 = Strongly Agree (SA).

Propositions on management support	**SD**	**D**	**NAND**	**A**	**SA**
The management of ADC offers technical support to its employees.					
Technical support influences performance of ADC.					
Employees of ADC receives financial support from the organizations in various forms.					
Performance of ADC is influenced by financial support.					
The management of ADC facilitates regular training and development of all staff.					
Training and development support positively influences					

performance of ADC.					
The staff of ADC are compensated sufficiently where their remuneration is in line with the market rate.					
Employees' compensation influences the performance of ADC.					
The management of ADC offers mentorship programs to the staff.					
Mentorship programs influences the performance of ADC.					

Section Six: Performance

Kindly state your views regarding ***performance of ADC***. Use the following Likert scale to illustrate your opinion.

1 = Strongly Disagree (SD); 2 = Disagree (D); 3 = Neither Agree nor Disagree (NAND); 4 = Agree (A); 5 = Strongly Agree (SA).

Propositions on Performance	**SD**	**D**	**NAND**	**A**	**SA**
ADC offers services of high quality to its clients.					
ADC offers excellent customer satisfaction (above 8 in a scale of 1 – 10).					
The labour force of ADC has increased considerably over the past 10 years.					
The productivity of ADC has significantly increased in the past 10 years.					
Comparatively, ADC has become more effective over the period of the past 10 years.					
ADC has become more efficient over the period of the past 10 years.					

Thank you for your time and cooperation.

APPENDIX II

INTRODUCTORY LETTER

ST. PAUL'S UNIVERSITY

Private Bag 00217 LIMURU, KENYA
Email: office@spu.ac.ke
Website: www.spu.ac.ke

Tel Office: +254 (0) 20-2020505/10
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BOARD OF POSTGRADUATE STUDIES

9th May, 2023

National Commission for Science and Technology,
P.O. BOX 30623-00100,
Nairobi.

Dear Sir/Madam,

RE: RECOMMENDATION FOR WILSON KIPRONOH TONUI MBADIST385521–TO CONDUCT RESEARCH

This letter confirms the above-named person is a student in Master of Business Administration at St. Paul's University.

The second year consists of a major research work leading to a dissertation. The student's selected topic is:

" Strategic Change Management and Performance of Agricultural Development Corporation, Kenya."

Kindly grant this student the required permit.

Yours Faithfully,

DIRECTOR POSTGRADUATE STUDIES ST. PAUL'S UNIVERSITY 09 MAY 2023 P.O. BOX 237 LIMURU TEL 0202020505/2020510

Dr. John Mugo
Director, Board of Postgraduate Studies

APPENDIX III

INSTITUTIONAL SCIENTIFIC ETHICS REVIEW COMMITTEE

ST. PAUL'S UNIVERSITY

Private Bag 00217 Limuru,
Kenya
Email: office@spu.ac.ke
Website: www.spu.ac.ke

Tel Office: +254 (0) 20-2020505/10
Mobile: +254 (0) 728-669000
(0) 736-424440

REF: SPU/20/2023 **Date: 8th May 2023**

TO: Wilson Tonui
St. Paul's University

Dear Wilson,

RE: Strategic Change Management and Performance of Agricultural Development Corporation, Kenya

Greetings,

This is to inform you that SPU- Institutional Scientific Ethics Review Committee has reviewed the above-named research proposal. **Your ERB approval number is 29, for the period between 8th May 2023 – 7th June, 2024.**

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments) will be used.
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SPU- Institutional Scientific Ethics Review Committee.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SPU- Institutional Scientific Ethics Review Committee within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to *SPU- Institutional Scientific Ethics Review Committee* within 72 hours

APPENDIX IV

RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **926319**

Date of Issue: **24/May/2023**

RESEARCH LICENSE



This is to Certify that Mr.. WILSON KIPRONOH TONUI of St. Paul's University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Garissa, Kilifi, Laikipia, Nairobi, Nakuru, Transnzoia on the topic: STRATEGIC CHANGE MANAGEMENT AND PERFORMANCE OF AGRICULTURAL DEVELOPMENT CORPORATION,KENYA for the period ending : 24/May/2024.

License No: **NACOSTI/P/23/26043**

926319

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

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See overleaf for conditions