TECHNOLOGY ADVANCEMENT, STRATEGY AND PERFORMANCE OF NATION MEDIA GROUP

BY

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DECLARATION

I Valentine Apollo Obara hereby declare that this research project entitled Technology Advancement, Strategy and Performance of Nation Media Group is my original work and has not been presented for a degree in any other University.

Signature…………………………………. Date………………………………….

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MBA PROGRAMME

SUPERVISOR'S APPROVAL

This MBA Research Project prepared by Valentine Apollo Obara entitled Technology Advancement, Strategy and Performance of Nation Media Group has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this research project to my entire family for all their support, patience and encouragement throughout the period of study.

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LIST OF ABBREVIATIONS

BSC Balanced Score Card

CA Communications Authority of Kenya

ICT Information and Communications Technology

NiE Newspapers in Education

NMG Nation Media Group

NTV Nation Television

RBV Resource Based View

R&D Research and Development

SMS Short Message Service

VOD Videos on Demand

ABSTRACT

Transformation in an organization requires effective management of change in response to the dynamic competitive business environment. Technology is among the major factors that push organizations to change. The media industry in Kenya has encountered challenges as companies aim to align their businesses with emerging technological trends. Global advancements in ICT have led to a shift in consumer preferences and increased competition. NMG has invested in digital media and it boasts of over five million monthly page-views in its digital platforms. However its profits have been dropping in the last four years. This study sought to establish the measures put in place by NMG to prevent obsolescence of its production processes and products. It analyzed the company's performance over the last four years and evaluated its strategies related to technology adoption. The study is a qualitative case study which relied on both primary and secondary data. Primary data was obtained by interviewing the company's top managers and through observation. Secondary data was gathered from company performance reports. The data was described and summarized thematically through qualitative analysis. Information obtained from the analysis was presented through content analysis by reporting key findings under each main category of study using the most relevant and representative illustrations. The pattern matching technique by Yin (2004) was used to analyze the data through matching dependent and independent variables. This study found that technology advancement has led to structural realignments at NMG due to redundancies caused by new technologies. This was also a cost-cutting measure since technological advancement led to drops in profits. The company invested in innovation of its products, diversification into new products and services and training its staff. Resistance to change by staff and lack of setting priorities in financial use emerged as key challenges. The management should consider investing in a more robust research and development department for appropriate decision-making. Similar studies may be carried out on other media organizations in the country as well as media industries in other countries for a comparative study.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Management of change is a critical tool of transformation in an organization. It requires managers to be well prepared to respond to the dynamic competitive business environment. Some factors that contribute to change in an organization are social, cultural, political, economic and technological. In the recent years, technology has been among the topmost factors that push organizations to change their business practice. Such pressures can come from within the organization or outside, and resistance by organizations to change may lead to obsolescence of their products (Thomson and Martin, 2010). In order for an organization to survive in such circumstances, Frohman (1985) suggests that it is prudent to integrate technology into its corporate strategy. This will assist the management to make informed decisions on how to achieve its business objectives. Husain and Sushil (2014) state that integrating technology into an organization's business strategy guides the management to reposition technology as a strategic resource in the business planning process since corporate strategy often neglects technology and focuses more on financial and marketing factors.

This study is anchored on the resource based theory, management system theory and Lewin's model of change. Models of change management are based on factors such as an organization's structure and systems, the need for change, employees' behaviours and execution of change strategies.

Besides Lewin's model (unfreeze-change-freeze), others are McKinsey's 7s model (structure, strategy, skills, staff, style, systems, and shared values), Kotter's eight-step model (urgency, powerful guiding coalition, vision, communication, empowerment, planning for and creating short term wins, consolidating improvements and producing more change and institutionalizing new approaches) and Prosci's ADKAR (Awareness, Desire, Ability, Knowledge and Reinforcement) model.

The Nation Media Group (NMG) was founded in 1959 and currently owns 20 brands in the print, broadcast and digital media industry spread across four countries (Kenya, Uganda, Tanzania and Rwanda). Between 1990 and 2000, the company made its entry into online publications in order to take advantage of the advancement of Information and Communication Technology (ICT), majorly the Internet that had begun to sprout in Kenya. In recent years, NMG has continued to invest in digital media since major global advancements in ICT has led to a shift in consumer preferences and increased competition. The company has presence in the digital space for all its products, boasting of over five million monthly page-views, although this achievement has failed to reflect positively in its financial reports. In the last four years, the company's profits have been dropping as it stood at Sh2.5 billion before tax in the 2016 financial year, from the Sh2.8 billion it got in 2015 and the Sh3.6 billion it had in 2014 (NMG, 2017). One of the major factors causing this trend as mentioned by its management is the digital disruption that has occurred from the rapid advancement of technology.

1.1.1 Concept of Strategy

Ritson (2011) defines strategy as a futuristic plan of action that is undertaken by the senior management in an organization. Hofer and Schandel (1979) state that strategy is the force of conciliation between an organization and its environment. According to Henderson (1991), strategy is the deliberate search for an action plan meant to develop and adjust a company's competitive advantage. In order for a manager to formulate a comprehensive strategy, it is crucial to analyze the link that exists between the company and its internal and external environment as explained by Porter (1985). This can be done using SWOT analysis (Strengths, Weaknesses, Opportunities and Threats). Through this method, the manager can know how to utilize a firm's internal strengths and deal with the weaknesses which can be in form of financial resources, human resources, technological and infrastructural resources that are at the manager's disposal. Externally, SWOT analysis enables managers to know how to take advantage of opportunities and counter threats.

Drivers of strategy are the forces that determine how an organization formulates and implements its strategies to achieve its goals and objectives. These drivers may be internal or external, and it can be disastrous for an organization that fails to adopt to them (Thomson and Martin, 2010). Technological change is one of the external drivers of strategy. This study will focus on how it influences organization structure, innovation and resource allocation. Kute and Upadhyay (2014) state that resource allocation should cover regular training of staff in the organization besides upgrading it infrastructure.

When managing technological change, there needs to be a structure that involves all employees in its implementation (Ahmad, 2014). Innovation management is key in this process since new ideas will have to be converted into profitable business (Drucker, 2011).

Constant changes that occur in an organization's environment require managers to come up with strategies that can offer an effective direction while at the same time making appropriate use of resources in a way that responds to the changes (Mintzberg, 1987). There are different modes of strategies proposed by scholars. Mintzberg and Waters (1985) suggested unrealized strategy, imposed strategy, planned strategy, deliberate strategy, realized strategy, emergent strategy and opportunistic strategy. Managers have to select a mode of strategy based on an organization's objectives which are formulated at the goal setting stage. At the implementation stage, Chandler (1962) states that managers may have to act on allocation or reallocation of resources such as funds, equipment or personnel. This stage is divided into two levels which are structure and control and feedback. At the structure stage, managers can rely on three schools of strategy that can have a direct impact on the structure of an organization because they touch on its modes of production.

The planning school was developed by Andrews (1987) and Ansoff (1965) whereby strategy is based on past trends, forecasts, stable structures and environments. Managers decide whether to expand an existing product in the present market or explore an existing product in a new market, whether to diversify a new product in a new market or innovate a new product in the present market as suggested in the Ansoff Matrix.

The positional school attempts to place the organization and its products in a favourable market and environment and it is mainly based on performance measurement and decision making tools. It is best described by the Boston Group Matrix, which describes an organization's products in the basis of cash cows (low market growth, high market share), stars (high market growth, high market share), dogs (low market growth, low market share) and problem children (high market growth, low market share). Grant (1998) developed the resource-based school of thought and it looks at the internal environment instead of the market unlike the other two schools. The inside-out approach suggests that the competitive advantage of an organization is based on its own distinctive resources, capabilities and competencies.

At the Control and feedback stage, the manager is required to make decisions about budget and financial plans, incentives and finally carry out review and evaluation of the strategy. This is the final stage of strategic implementation whereby the resources that were set aside are put into use with an aim of reaching the objective which will make the organization gain competitive advantage in the industry. The tools that are mainly used to evaluate the success and performance of the strategy are the balanced scorecard and strategy maps. The balanced scorecard, abbreviated as BSC, is basically a semi-structured report which is supported by design methods and automation tools. It is used by managers to keep track of the execution of activities by the staff within their control and to monitor the consequences arising from these actions. On the other hand, a strategy map is a diagram that is used to document the primary strategic goals being pursued by an organization or management team.

1.1.2 Technology Advancement

Technology refers to the tools, materials, processes, and techniques that assist in problem solving (Afuah, 2003). In an organization, technology is not just the physical machines that are used in production, but it also consists of software which are a set of guidelines and instructions that enable the hardware to perform its tasks. It also consists of brainware which are human capabilities to use the components to achieve the organization's objectives (Husain and Sushil, 1997). Therefore technology advancement leads to the introduction of new products and processes that affects ways of achieving goals in an organization.

Mokyr (1990) states that innovation of technology can enable organizations enhance their effectiveness and thus meet their objectives in new ways. This is because such advancements can speed up production processes, cut costs of production and enable an organization to diversify its products and broaden its market if well implemented. The key steps of adopting technological changes as identified by Schilling (2013) are identifying sources and types of innovation, formulating a strategy and eventually implementing the strategy.

This study sought to establish the measures put in place by NMG to prevent obsolescence of its production processes which includes its means of reaching the target markets. Factors such as upgrading of hardware, purchase or development of new software and training staff on the use of latest technologies were analyzed. The findings will offer best practices for the industry since it also identified challenges and how to overcome them.

1.1.3 Firm Performance

The performance of an organization relies on a manager's strategic performance management capabilities. Marr (2006) defines strategic performance management as the organizational approach to define, assess, implement, and continuously refine organizational strategy. It is also defined as a continuous process of identifying, measuring, and developing the performance of individuals and teams and aligning performance with the strategic goals of the organization (Aguinis, 2013). From the definitions, the key elements of performance management are that it is continuous, measurable, involves teamwork and is reliant upon an organization's strategy.

Verweire and Berghe (2004) identified several measures of performance in an organization. These include financial measures, shareholder value, value-based management and stakeholder value. Financial measures which are the most common and traditional form of performance measurement are based on a firm's return on equity, earnings per share, pay-out ratio and cash flow.

However, an organization's financial results are based on its entire production processes. Due to this, Armstrong (2015) describes performance management as strategic since it requires an alignment of individuals and teams into the strategic goals of the organization. Aguinis (2013) identified measures of boosting employee morale such as reward schemes as important factors for managers to consider as they aim for positive performance in an organization. This research analyzed the financial performance of Nation Media Group over the last four years.

1.1.4 The Media Industry

The effect of technology advancement on business growth is determined by intervening variables which are within the whole industry. These include government policies, availability and affordability of technological infrastructure and availability of skilled labour. These variables can make or break an organization that is faced with technology advancements in the environment in which it operates. A firm may be having a perfect strategy of adopting technological advancements, but its strategy can be negatively affected by such intervening variables and thus affect its business growth. Such variables are often beyond the control of an organization since in most cases, they do not fall within the spectrum of the firm's management. However, there are instances whereby firms can take action to control these variables.

This research evaluated how NMG has reacted to the intervening variables in a bid to prevent them from affecting its business growth. It established the kinds of strategies that are related to technology adoption in the company and whether they are effective. The study analyzed the company's efforts to have proper infrastructure in place and what it has done to to boots expertise of its employees during adoption of new technologies.

1.1.5 Nation Media Group

The company's performance is the dependent variable of this study. This is because technology advancement is expected to affect it. The influence of technology advancement on business growth at NMG may emerge from how it affects its capabilities to enter into new ventures. This research aimed to find out the strategies put in place by NMG to expand its business or maintain its leadership in the industry.

Due to this factor, strategy was the intervening variable in the study. The available options for growth in firms undergoing technological change are mergers and acquisitions, innovating existing products, building new products, outsourcing services and infrastructure and/or shutting down obsolete products. Business growth depends on the measures put in place to take advantage of new consumer preferences and how the company deals with heightened competition in the industry.

Performance can also be influenced by the kind of organizational structure that is in place. Organizations may be forced to change their management structure so as to have a more efficient and effective workflow in a way that suits the new procedures. In so doing, the company may opt to merge departments and new management levels, in a way that may lead to doing away with some departments. Resource allocation and technology development, acquisition and transfer are also key factors that can have an impact on business growth when an organization is undergoing technological changes.

1.2 Research Problem

Technology advancement needs to be integrated into an organization's management strategy whenever it is undergoing changes brought about by such changes in order for an organization to be competitive in an industry (Husain and Sushil, 1997). In the 21st Century, technology is among the main triggers for change in an organization. Paton and McCalman (2008) state that new markets have been created due to rapid technological advances, as existing markets are revolutionized. This view is shared by Schilling (2013) who states that the most important driver of competitiveness for firms in this era is technological innovation.

The effects of technological changes to strategy of media organizations are diverse, varying from their production processes, organizational structure, infrastructure and human resources. The organizations need to maintain relevance in the industry in order to gain or maintain competitive advantage. This calls for innovative strategies that need to be fully implemented within a specified period of time.

Media organizations in Kenya started facing challenges from technological advancements at the turn of the millennium in the year 2000. Most media houses begun adopting to the changes by investing in digital media, in particular launching news websites. With time, technological changes were more rapid as access to the internet became easier following the high penetration of broadband and cell phones that could access the Internet. This in turn has led to rapid changes in consumer preferences as it opens up the market for easier entry of more competitors, causing a disruption of business processes for traditional media. By 2017 there were 21.5 million mobile data subscribers in the country. In total, an estimated 40.5 million people have access to internet with an 89.4 per cent internet penetration in Kenya (CA, 2017). The highlight of transformation in the media industry was in 2015 when the government of Kenya started implementing migration from analogue to digital television broadcasting.

Studies have been carried out in the past focusing on the impact of technological changes on strategy in organizations. Allahyari and Ramazani (2011) studied the effects of technological change on management accounting. A research by Masad (2016) studied the impact of technological change on human resources diversity management practices, besides factors driving those technological changes.

A study on the effects of ICT advancement on human resource management was also carried out by Edeja et al. (2017). Dauda and Akingbade (2011) carried out a research about how technological change affects employee performance. The study was done in selected manufacturing firms in Lagos, Nigeria. In Kenya, Njoroge (2013) studied the influence of Information Technology on strategic management at Barclays Bank of Kenya. Kipkemoi (2014) analyzed how business survival in the Kenyan motor vehicle industry has been affected by innovation and technology management practices.

Many other studies done in Kenyan organizations are generally about management of strategic change, whereby technology is just a part of the whole study. This shows that there is a gap in research on the impact of technology to strategy per se in organizations. Due to these factors, this study seeks to answer the question: How does technology advancement affect strategy and performance in an organization?

1.3 Research Objectives

i. To establish the impact of technology on the company's organizational structures.
ii. To investigate how technological advancement has influenced innovation at the company.
iii. To establish the effects of technological advancement on resource allocations at NMG.

1.4 Value of the Study

Research regarding technology in management are often limited to its impact on particular departments or procedures in organizations for instance Human Resources, Operations Management, and Accounting. This study contributes to theory development by exploring the best strategic management practices that managers can adopt generally when faced with situations of changes brought about by technological advancement. It also guides future studies which seek to develop frameworks about the contribution of technological changes to strategic change management.

The findings of this study will enable managers in the media industry to invest in business opportunities that are most likely to get a boost from technological advancements and be wary of obsolete ventures. Although technology improves efficiency in organizations, this study explored instances where organizations have faced challenges due to advancement of technology. Managers will therefore be able to appreciate that technological development influences strategies that they intend to use to gain or maintain competitive advantage in an industry.

Stakeholders in policy-making such as government and legislators will realize the need to formulate policies that are crucial to attract and protect investors in the industry, protect consumers while at the same time benefit the country's economy. Policies about investors may include protection of intellectual property, easy access to the latest technological infrastructure and fair competition. Others are protection of employees' rights during technological advancement and consumer protection policies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section will analyze theories that are relevant to this study and analyze studies that have been carried out in the past on the same. It will identify the importance of such studies and theories to change management practice with a focus on technological change, as it brings out any gaps that may be existing in these studies.

2.2 Theoretical Foundation

This study is based on the resource based theory and management systems theory. The two are selected for this study because they are the most relevant for technology change in an organization. The study will also analyze Lewin's model of change in this section to provide an analysis on the steps of implementing change.

2.2.1 Resource Based View

This theory which is popularly referred to as RBV was developed in the 1980s. One of its main aims was to establish reasons as to why firms differ, their behaviours, how they select strategies and how they are managed (Porter, 1991). Its earliest proponents were Barney (1991); Rumelt (1984); & Wernerfelt (1984). It stresses that an organization's resources are key to determine its competitive advantage. This is based on an assumption that firms within an industry have their own unique resources and this uniqueness persists over time because they cannot be easily transferred, traded or imitated by competitors.

Barney (1991) described an organization's resources as rare, valuable and difficult to imitate. He explains that the resources consist of physical capital resources which include physical technology, plant and equipment, a firm's geographical locality, access to raw material, availability of human expertise, management capabilities and an organization's formal and informal systems and structures. The relevance of this theory in managing change is that it provides a holistic view for managers concerning resources that are fundamental to the realization of an organization's objectives thus enabling them to focus on investing in the key resources required for implementing change. However, RBV has been criticized for its assumption that managers can always develop resources that are valuable, rare, inimitable and non-substitutable (VRIN) by their competitors (Connor, 2002). Therefore, organizations are required to be continually innovative in their processes.

2.2.2 System Theory of Management

A system refers to a network of synergetic parts that are interrelated and interdependent in actions aimed at achieving a common purpose. The systems theory of management seeks to provide an in-depth view on how different departments and levels of an organization cooperate towards attaining its goals. Application of this theory has its roots as far back as a century.

Taylor (1911) rightly predicted that the system will be given priority in future management as compared to how priority was given to individuals in the past. Nobert Wiener developed the idea of closed systems. In his explanation, the interdependent parts would not interact with the external environment.

This idea was later challenged by the open systems school of thought which has its foundations on Darwin's theories on evolution and has proponents such as Ludwig Von Bertalanffy. Under this school of thought, living organisms have to interact with the external environment in order to grow and survive (Chikere and Nwoka, September 2015). Katz and Kahn (1966) argue that the organization has an input-output system whereby the energy coming from the output reactivates the system. This theory is applicable to management of technological change since organizations do not exist in a vacuum. Changes that occur in the external environment constantly affect them and it is upon managers to ensure the organization adapts to the changes and bring every employee on board. Mele et al. (2010) stress on the importance of managers to plan appropriate structural adjustments in order for their organizations to survive in a competitive environment by gaining advantage over their competitors in an industry.

2.2.3 Lewin's Model of Change

Kurt Lewin came up with the Lewin's model which proposes that change should be carried out in three steps, which are unfreeze-change-freeze. It simply involves destruction of the current mindset about doing things in an organization, followed by introduction of change in the institution and eventually cementing the new ways of doing things in the employees' mindset. The model states that for strategic change to be successful, management must make the people who are involved let go of old ways that are counterproductive to the realization of the organization's objectives. This can be achieved by increasing motivating factors that will push individuals away from status quo as they pull towards new ways, decreasing factors that motivate negative behavior and/or combining the two methods (Kritsonis, 2004-2005).

Critics of this model say it is too simplistic, irrelevant to a wide variety of change projects, ignores the impacts of politics in organizations and supports a top-down approach to change whereas some circumstances need bottom-up approach (Dawson, 1994; Garvin, 1993; & Wilson, 1992). But, Burnes (2004) states that Lewin's work has contributed a lot to resolving social conflict through changing group behavior, promoting an ethical approach to change and stressing on learning as a key requirement to achieve behavioural change.

2.3 Technology, Strategy and Performance

This section analyzes studies that were carried out in the past which are relevant to this research. It will include studies that generally analyzed the impact of change to management, implications on resource allocation, production processes and innovation management.

2.3.1 Technological Change and Resource Allocation

Husain and Sushil (1997) state that the organization must have a technology strategy that is incorporated in the corporate strategy. They go further to explain that technology strategy may consist of three elements which are technology acquisition, exploitation and management that are interrelated. This opinion is shared by Frohman (1985), who states that the benefits of technological change rely on how the change is implemented. His argument is that technological change can either create or destroy profits, markets and industries if a company fails to integrate the technology to its strategy.

By integrating the two, a company will be able to easily identify the technical resources it needs to achieve its business objectives and speed up the transformation of ideas into action. Resources can be a good source of competitive advantage in an organization and they may include human resource, financial and infrastructural resources. Pavitt (1990) observed that investment in Research and Development is crucial for organizations to succeed in implementing technological changes. He found that firms which spend less in R&D were under threat for those that spent at least 30 per cent of their budgets on research.

Managers must remember that besides financial, technical expertise and time constraints, changes brought by new technologies can also face challenges from political barriers, political barriers and cultural barriers (Ahmad, 2014). On her part, Haddad (2002) warns organizations against making decisions concerning technology irrationally. In her opinion, she proposes that organizations should not be carried away by the glamour of technology when deciding about new equipment, integrated systems and software. She states that the process of adopting new technologies in an organization must be done in an inclusive and focused manner so that only technologies that are capable of achieving feasible business goals are adopted.

A research carried out on the impact of technology in the printing industry found that although technological advances cause a reduction in the number of employees needed to carry out tasks, those employees are required to be highly skilled in the new processes. Besides this, there is also need for regular training since technologies keep changing with time (Kute and Upadhyay, 2014).

2.3.2 Technological Change and Organization's Structure

Technological advancements have a direct impact on the production processes within an organization and in turn this may require managers to revise the organization's structure. In so doing, it is vital for managers to bear in mind the importance of forming teams with appropriate skills that are required to implement the change strategy successfully. Paton and McCalman (2008) argue that winners in any society have a common characteristic of their ability to manage and exploit change situations effectively. To them, management and change are inextricably linked in that managing change requires evaluation, planning and implementation strategically. Successful implementation of change calls for a management team that has full capability of leading the organization through a transition without much disruption of its business by first obtaining a shared perception among those to be affected.

The importance of leadership in change management is elaborated by Kotter (1995) who categorically says that organizations require more leaders than managers in order to succeed in change management. He argues that successful transformation in an organization occurs when there is renewal in leadership of the organization. The renewal aims to have a leader who appreciates the need for change, since change itself requires a new system to be in place. Failure to this, there will be a huge challenge right from the initial steps of managing change. Employees must also be supported in every possible way to gain new skills and techniques that will be required. Such skill are not only important in implementation of change in the organization but also in maintaining relevance of their careers. Ahmad (2014), states that success in this process will depend on its simplicity and maximum inclusion.

2.3.3 Technological Change and Innovation Management

In an environment where businesses compete against each other, innovation is what can make a difference between organizations even in a situation whereby they are all adopting similar technologies. As stated by Drucker (1995), it is the job of business to convert change into innovation, that is, into new business. This means that any kind of change that occurs in a business environment should be taken as an opportunity rather than a threat, for the business to expand and grow its profitability. Innovation management involves collaboration between different levels of the organization and it makes use of creativity, skills and technologies to enable transformation of products and processes in a firm.

Abernathy and Clark (1984) observed that due to the fact that organizations do not exist in a vacuum and thus have no homogenous products, a firm's innovativeness can make it gain competitive advantage over its rivals. This can be achieved by increasing its capacity of resources, skills and knowledge. However, an organization's willingness to adopt innovative processes and operations is often influenced by environmental factors. Among the factors is changes in customers' tastes and preferences.

Bayus (2008) argues that the customer is at the very center of an organization's decisions regarding innovative measures that should be taken during technological changes. He proposes that for innovations to be feasible, salable and desirable to customers, an organization must have effective cross-functional communication across its departments that are key to meet its objectives.

Damanpour and Schneider (2006) established that the most crucial factors that influence innovation are the organizational characteristics and the attitude portrayed by managers towards innovation.

Apple Inc. is among the global firms that lead in good practices of innovation management. In a case study, Yoffie and Baldwin (2015) explored the way Apple’s CEO, Tim Cook, and his predecessor Steve Jobs, valued organizational culture as a means to transform the company from the era of Apple PCs in the 1980s, to the current smart watches. The study revealed that transformation of organizations during technological changes face numerous challenges such as heightened competition from new rivals and a change of consumers’ tastes for products. In order to maintain momentum of profitability, Apple Inc. also relied on hiring tech experts, entering the global market and product diversification.

Its efforts of diversification are evident from producing the iPod in 2001, iPhone in 2007, iPad in 2010 among others, and eventually iPhone X and iPhone 8 in 2017. Successful innovation management also relies on effective implementation of a knowledge management strategy (Forcadell and Guadamillas, 2002). Studies have shown that knowledge management involves creation, transmission and application of new knowledge (Cohen and Levinthal, 1990). Organizations can generate new, unique resources and skills by implementing knowledge management strategies.

Table 2.1: Summary of Empirical Review and Knowledge Gaps

Study	Methodology	Main Findings	Research Gap
Apple Inc. in 2015, Yoffie and Baldwin (2015)	Case study	Research & Development, leadership and a clearly defined organization structure are crucial in managing change.	The study does not analyze sustainability of the adopted strategies.
Technology in organizations, Ahmad (2014)	Case study	Employees have to be informed about all the changes intended to be brought in an organization so that they can be prepared in ways such as gaining new skills.	The study does not take a comprehensive look at the possibilities of resistance to change by employees.
The impact of technological changes on performance of employees in the commercial printing industry, Kute and Upadhyay (2014)	Descriptive research	Technology changes have a direct impact on the nature of human resources hence measures should be put in place to protect interests of all stakeholders.	The study does not consider negative effects that technology may bring to organizations, such as lower profit margins.
The influence of Information Technology on strategic management practices of Barclays Bank of Kenya, Njoroge (2013)	Case study	Adoption of ICT enables firms to gain more opportunities and higher penetration in the market.	There is no in-depth analysis of challenges facing firms during adoption of technology.
Phases of the adoption of innovation in organizations: Effects of environment, organization and top managers, Damanpour and Schneider (2006)	Survey	Managers must show commitment to innovation by allocating the necessary resources required such as human resources and financial resources.	The study does not factor in organizational structures, variances in character of managers and negative attributes of innovation.
A case study on the implementation of a knowledge management strategy	Case study	Knowledge Management is a key strategy to enhance innovation in an	The study downplays mobility of knowledge-based capabilities from a

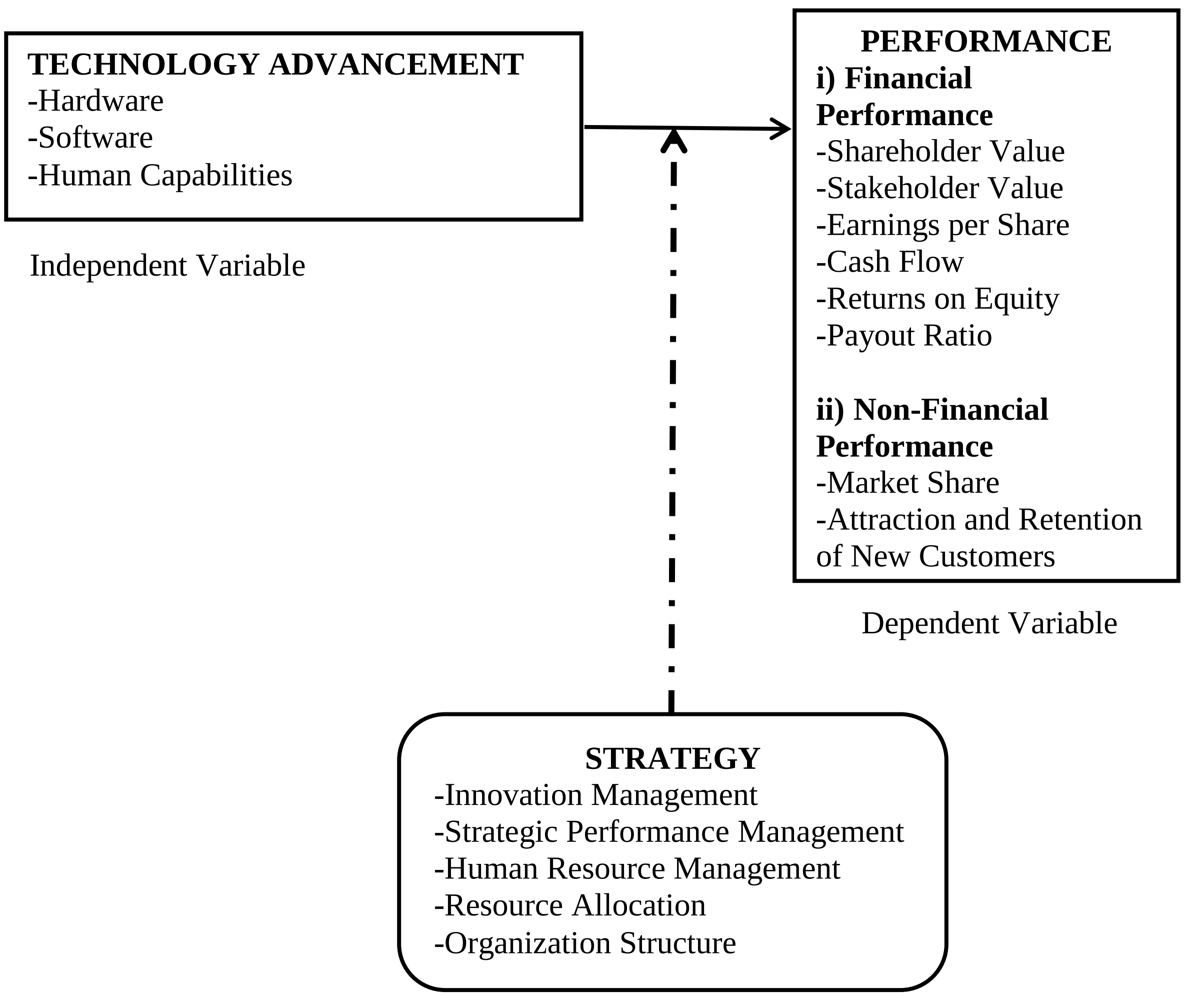
oriented to innovation, Forcadell and Guadamillas (2002)		organization implementing continuous change.	firm to its rivals.
Strategic management of technology – a glimpse of literature, Husain and Sushil (1997)	Case study	There is need for more focus on integration of technology with business strategy.	The study does not evaluate challenges caused by technology development and adaptation in firms.
Innovation: Mapping the winds of creative destruction, Abernathy and Clark (1984)	Case study	Innovation management should be carried out in phases in order for a firm to gain competitive advantage in an industry.	The research mainly focuses on the automotive industry only.

Source: Researcher (2018)

2.4 Conceptual Framework

This study focused on three variables which are technology, strategy and performance. The research aimed at establishing interdependence between the three by investigating how dynamic changes in technology influence strategy and, as a result, performance at NMG. This means that technology was the independent variable of the study whereas performance was the dependent variable. Strategy was a moderator variable in this research as shown in figure 2.1.

Figure 2.1: Conceptual Model



Source: Researcher (2018) Moderator Variable

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section will cover the methods and procedures used to carry out the study. These include the research design and data collection, analysis and presentation procedures.

3.2 Research Design

This research was carried out through a qualitative case study. The study focused on people, their attitudes, opinions and behaviours regarding the research questions. It was more concerned with seeking answers of an explanatory nature than to answer the question on 'how many' hence it is qualitative. As explained by the grounded theory of qualitative research approaches, the data collected and analyzed aimed at generating theories and evaluating processes and actions (Ritchie et al, 2013).

This study was based on the hypothesis that technological changes push managers to review their styles of running organizations. The validity of the outcomes of testing this hypothesis relied on the use of diverse sources of data. According to Yin (2004), a case study has an advantage in research since it relies on a variety of sources of data whose findings can be used to establish concrete points of evidence through triangulation.

3.3 Data Collection

The study relied on both primary and secondary data. Primary data was obtained by interviewing top management at NMG drawn from different departments. Primary data was also collected through observation. Secondary data was gathered from company performance reports for the past five years. Other sources of secondary data were statistical reports from CA. The data sought was about how technological advancement has influenced new ventures, organization structure, resource allocation and technology development, acquisition and transfer. The data was organized in a case study database in order to achieve reliability for the study.

3.4 Data Analysis

The data collected was first carefully screened for errors and omissions to ensure that there was a highest level of accuracy of facts, uniformity and completeness to interpret the data correctly. In order to establish relationships between various themes that were identified in the data, the data was described and summarized through thematic qualitative analysis. The identified themes were then explored and refined in order to develop new theories that can be tested against existing theories. Yin's pattern matching technique was used to analyze the data through matching dependent and independent variables. Information obtained from the data analysis were presented through content analysis. This was done by reporting key findings under each main category of study using the most relevant and representative illustrations. Findings were also discussed in relation to existing studies, as informed by Burnard et al. (2008).

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This section covers the analysis of primary and secondary data obtained concerning the impact of technology advancement on strategy and performance at Nation Media Group. This research targeted 16 respondents for obtaining primary data. The respondents are top managers of different departments at NMG who form the company's executive team. The departments include finance, editorial, broadcast, legal, digital, circulation and distribution, marketing, Information Technology, corporate affairs and production. The researcher carried out face to face interviews and electronic interviews via email. The interview guide was tested for validity and reliability through peer review.

Secondary data was collected from NMG's annual performance reports, the company's website and statistical reports concerning the industry from CA. The research relied on the company's annual performance reports in the last five years (2013 to 2017). Similarly, Sector Statistical reports from the CA were within the same period of time. These reports were useful to show the digital trends in the media industry over time and their effects to the company.

Table 4.1: Interviewee Compliance

Reaction	**Incidence**	**Percentage**
Compliant	9	56.25
Non-compliant	7	43.75
Total	16	100

Source: Field Data (2018)

Table 4.1 presents the response rate for this study. Out of the 16 targeted respondents, 9 were compliant. Out of the 9 compliant respondents, 3 were interviewed via email while 6 were face to face. In total therefore, the research got a response rate of 56.25%. This response rate is adequate for valid and reliable results in the study.

Although a high response rate is useful to gather a wide variety of opinions with which to carry out an intensive analysis scholars such as Keeter et al (2000) state that the level of response rate is insignificant to reliability of results in research.

4.2 Demographic Data of Respondents

The demographic data that was collected from respondents in this research include gender, years of service at NMG, professional and educational background. These were necessary for the researcher to avoid bias in data collection and analysis so as to obtain credible results from the analysis.

Table 4.2: Gender Classification of Respondents

Classification	Incidence	Percentage
Male	9	100
Female	0	0
Total	9	100

Source: Field Data (2018)

Table 4.2 presents a summary of gender classification of the respondents. The study established that the executive team at NMG consists of 16 top managers heading its different departments, including the Group Chief Executive Officer. Out of these, there are only two females (12.5%) and 14 males (87.5%). All 9 respondents who participated in this study were male. This means that the gender of respondents was 100% male and 0% female.

Table 4.3: Level of Education of Respondents

Level of Education	Incidence	Percentage
University Graduate	8	11.1
University Post Graduate	1	88.9
Total	9	100

Source: Field Data (2018)

Table 4.3 presents the level of education of respondents. In the study, 88.9% of the respondents indicated their highest level of education as Masters Degree while 11.1% had a Bachelors Degree. 100% of the Masters Degrees were business-related.

All the respondents had obtained Bachelors Degrees and other lower certifications in various fields such as Finance, Accounting, Commerce, Marketing, Law, Journalism and ICT. Education background of managers and employees in an organization has an impact on their skills.

Table 4.4: Years of Service of Respondents

Years of Service	Incidence	Percentage
1-5	4	44.5
5-10	1	11.1
10-20	2	22.2
Above 20	2	22.2
Total	9	100

Source: Field Data (2018)

Table 4.4 presents a summary on the years of service of respondents. The study established that a majority of respondents have served the company for less than 10 years. 55.6% of the respondents have served the company for between 1-10 years while 44.4% have served for over 10 years. This shows that the respondents consists of a fairly balanced number of new employees and old ones even though the company has entrusted its transformation process on a majority of new managers. The mixture of new and old employees at the top management gives the organization a team that can provide a clear assessment of where the company has come from and where it is heading with its strategies. The company changed its Chief Executive Officer twice from 2015 to 2018.

4.3 Technology Advancement, Strategy and Performance

Technology advancement was the independent variable in this study. The research sought to determine its impact on strategy at NMG as well as its impact on performance at the organization. This section will present findings of the study.

4.3.1 Technology Advancement and Strategy

Technology advancement and strategy are inextricably linked and they influence factors such as resource allocation, organization structure, products, production methods and distribution. The study established that technology advancement at NMG was constant in the last five years. This means that the company was developing and implementing new strategies to meet its objectives in that period of time as it evolves to be at par with the changes that take place in the industry in order to maintain its commercial leadership in the media industry.

The company's consistent actions to develop new strategies that deal with technology advancement are in line with the views by Henderson (1991) who views strategy as a deliberate search for an action plan meant to develop and adjust a company's competitive advantage. The study found that NMG adopted a mixture of modes of strategy suggested by Mintzberg and Waters (1985), because it had been predicted earlier that technology would affect the media industry. The modes of strategy that were revealed in this study are planned, deliberate, emergent and opportunistic. Managers at NMG embrace the planning school of thought which was developed by Andrews (1987) and Ansoff (1965) since their strategies are mostly based on an analysis of past trends and forecasts about the future of the industry.

This study established that technology advancement influenced decisions concerning development and production of goods and services NMG. The research found that since 2016, the company was more vigorous in seeking new revenue streams that can give it a competitive edge in the media industry. Due to the technological disruption, the company shifted focus from its legacy/traditional products in print media, radio and TV to invest in new digital products such as mobile apps and web development. This is meant to take advantage of opportunities brought about by technology advancement in order to reach new markets and counter new entrants in the industry which include players from industries outside the media. Besides numerous digital content generation and circulation startups, Safaricom Limited which is a giant in the telecommunications industry and Equity Bank which is a financial service provider, are among established companies that offer news and entertainment content dissemination thus giving competition to media organizations.

As suggested by Husain and Sushil (2014), and Frohman (1985), the company integrated technology into its business and corporate strategies as it re-positioned technology into a strategic resource in the business planning process. Traditionally known strictly as a news organization, the research found that the company started to be engaged in other commercial activities. These include offering services in gaming, entertainment, education and events. From the research, it was evident that these measures were put in place in order to counter the drop in revenues in news media caused by technological disruptions. For instance, in entertainment, the company acquired the Kenya Buzz which is an online entertainment directory. Later in 2018, NMG established a music production studio known as Lit360.

The company was engaged in events such as the Nation Leadership Forum and organizing agricultural exhibitions in collaboration with its commercial partners, besides its involvement in education through the NiE project which targets schools across the country. Although the company sought new revenue streams, this study found that it also aimed at maintaining its incomes obtained from the traditional products which are TV, Radio and Newspaper productions. This shows that the company took rational measures concerning its traditional investments even as it adopted new technologies as recommended in a study by Haddad (2002).

From the research, it emerged that most of the new revenue streams are tied to the traditional products as a means to curb their (traditional products) declining profits. Lit360 studio was tied to the company's TV station in Kenya (NTV) which had an entertainment program with a similar name and also on the company's Nation FM radio station. The NiE project was tied to its newspapers through which the company offers educational segments for students. These include the *Junior Spot* in the company's Daily Nation Newspaper, and *Mitihani*, *Elimu na Lugha* and *Mashindano ya Insha* through its Swahili daily newspaper, Taifa Leo.

Similarly, its agricultural exhibitions were tied to its weekend publication, *Seeds of Gold*. Drucker (2011), stated that during change in a business environment, organizations can convert change into new business through innovation. Andrews (1987) and Ansoff (1965) described in their planning school of thought how managers can innovate a new product in the present market under the Ansoff Matrix.

Other decisions that managers can make are to expand an existing product in the present market, explore an existing product in a new market or diversify a new product in a new market.

Further to this, the study established that the company developed a 'Mobile First' strategy in circulating its news products which are traditionally delivered through newspapers, radio and TV. This was achieved through sending news via SMS, web and mobile subscriptions, development of mobile phone applications for the company's products, apps for delivering Videos on Demand (VOD) and content distribution through websites which are accessible on smart phones. This strategy was meant to take advantage of mobile phone penetration in Kenya as well as internet subscriptions.

Table 4.5: Mobile and Internet Subscriptions from 2013-2017

Year (December)	Mobile Subscription (Million)	Mobile Data Subscription (Million)
2013	31.3	13.1
2014	33.6	16.3
2015	37.7	23.8
2016	38.9	26.6
2017	42.8	33.3

Source: Field Data (2018)

Table 4.5 presents the trend of mobile phone subscription and internet penetration in Kenya . Statistics from the CA show that by December 2017, mobile phone subscriptions stood at 42.8 million while there were 33 million subscribed to mobile data/internet.

In order for the company to benefit from the trends above, it emerged from this study that the organization took new measures on resource allocations. The research studied allocation of resources in physical and human resources as advocated by Barney (1991).

The study on the company's resources was also founded on the RBV Theory which identifies the uniqueness of an organization's resources as a key determinant on the kinds of strategies that are put in place. On human resources, it was established that the company undertook rapid realignments of its structure since 2014 as a means of achieving effective innovation management. These realignments were meant to create a lean workforce which is more efficient in meeting the organization's objectives and reduce redundancies that came as a result of technological advancements. It also aimed at reducing operational costs since technological changes also affected performance as will be elaborated later in this report.

The research found that realignments consisted of merging departments that carry out similar functions so as to enable a seamless work-flow. The company created what it terms as a 'converged news desk' which aims at breaking the boundaries that separated its electronic/broadcast and print/newspapers departments. Staffing shifted to recruiting multi-skilled employees who have the required competency to drive this convergence objective. A study by Kute and Upadhyay (2014) proposed that resource allocation in an organization should consider regular training of staff. This study established that although NMG has focused a lot on attracting new skills, it has also invested in training its old staff about the new ways of doing business in the wake of technological advancements.

Some of the training were on data science, digital publishing and management of change transformation. This way, the company took advantage of new revenue streams brought about by technological changes by leveraging on the strength of its legacy commercial brands by using a hybrid model of staffing. These decisions are in line with the resource-based school of thought in strategy. Grant (1998) described how this school of thought makes organizations focus on their internal business environment so as to build a competitive advantage based on their own unique resources, capabilities and competencies.

Apart from human resource, the research found that NMG invested in new infrastructure to drive its innovations. It was established that in contrast to over five years ago whereby major infrastructural investments in the company would be physical structures, the past five years saw the company shift its focus. It invested in digital technology enablers. These include broadband connectivity, development of mobile apps and latest content management software.

The company also invested in data mining in a bid to get a clearer understanding of consumer trends and preferences which keep changing rapidly with changes in technology which influence their tastes of products and how they consume those products. With these strategies in place, NMG aimed to gain competitive advantage over its rivals in the industry. Schilling (2013) stressed on the need for an organization to have structures and control systems that encourage innovation. Abernathy and Clark (1984) suggested that competitive advantage during technological changes in an industry can be achieved by increasing an organization’s capacity of resources, skills and knowledge.

4.3.2 Technology Advancement and Performance

Performance of an organization can be measured by its financial outcomes, shareholder value, value-based management and stakeholder value (Verweire and Berghe, 2004). It can also be measured by non-financial factors such as a company's market share and its ability to attract and retain new customers. This part of the study mostly relied on secondary data to determine the influence of technology advancement on performance at NMG. The data were collected from the company's financial reports from 2013 to 2017, showing a drop in profits. 100% of respondents agreed that technology advancement in the media industry had a negative effect on revenues and profits at NMG.

Table 4.6: Profits Before Tax and Earnings Per Share at NMG from 2013-2017

Year (December)	Profit Before Tax (Billion Ksh)	Earnings Per Share (Ksh)
2013	3.59	13.4
2014	3.62	13.1
2015	2.82	11.8
2016	2.46	8.9
2017	1.95	6.9

Source: Field Data (2018)

Table 4.6 presents the financial trends of NMG from 2013 to 2017. Profits before tax was on a downward trend since 2014 (Sh3.62 billion) to 2017 (Sh1.95 billion).

This affected incomes for shareholders whose earnings per share was on a similar trend from 2013 (Sh13.4 per share) to 2017 (Sh6.9 per share). The company mainly relied on newspaper circulations and advertising for its revenues but circulation was dropping over the years. A survey by GeoPoll (2017), showed that only 5.1% of Kenyans aged 18-35 (millennials) who form the majority population in the country rely on newspapers as their primary source of news. Social media took the lead as a news by 60.1% with T.V trailing behind it at 27.6% and radio with only 7%.

This research found that NMG is facing a challenge of dealing with new entrants in the industry who are eating into its market share. It was established that technology advancement has broken the barriers of entry into the media industry and made it easy and affordable for new entrants to create news websites, blogs and SMS breaking news platforms which compete with NMG products. As mentioned in the previous section, the new entrants include giant corporates from outside the media industry such as Safaricom Limited and Equity Bank who have financial and infrastructural muscle to compete with NMG in digital content generation and circulation. The study found that management at NMG identified its heavy reliance on circulation as a risk and hence taken measures such as investing more in the digital space and diversifying into provision of services in education, events, lifestyle and gaming.

It emerged that the company's targeted audiences are responding positively to its digital investments. The study found that it had over 32 million audience footprint by the end of 2017. This research found that a challenge still exists on how to make profits from the digital presence achieved as clearly revealed in its financial performance.

4.4 Discussion of Results

This section will cover the results of the study in relation to the theories and empirical studies that formed the basis of this research. This will be done by addressing the outcomes of research on each objective of this study and linking them to the theories and empirical studies. The research had three objectives which focused on relating technology advancement to organizational structures, innovation and resource allocation.

Objective One: To establish the impact of technology on the company's organizational structures

NMG changed its organizational structure into a lean one as a cost cutting measure and also to improve its efficiency. This measure led to changes in leadership of its key departments in the period of study. The company resorted to merge departments that perform similar functions to create a leaner structure than before. The decisions are in line with the resource-based school of thought in strategy. Grant (1998) described how this school of thought makes organizations focus on their internal business environment so to gain a competitive advantage in the industry.

While a change of leadership might assist a company undergoing change to break status quo and deal with resistance to change at the management level, Damanpour and Schneider (2006) noted that managers must portray a leadership character in order to influence innovation in the rest of the organization. Structural realignments that are brought about by technology advancement must also be carried out in a way that will not kill productivity in the organization.

Objective Two: To investigate how technological advancement has influenced innovation at the company

It emerged that NMG had innovative strategies in place that enabled it to maintain leadership in the industry. It predicted that technological changes would affect its business hence the strategies put in place consisted a mix of planned strategies, deliberate strategies, emergent strategies and opportunistic strategies. At NMG, a system was developed to provide an opportunity for every staff member to contribute ideas on news innovations. This is not limited to new products and services but also new ways of production. Ahmad (2014) suggested that there must be maximum inclusion when an organization undergoes transformation. Such inclusion is meant to make all employees feel part of the change process hence curb resistance to change.

The innovations arising from technological advancement led the company to diversify its products and services as it aimed at locking in its traditional target markets while at the same time entering new markets. This mixed modes of strategies is in line with the suggestion by Mintzberg and Waters (1985). Besides this, the strategies were majorly based on analysis of past trends and forecasts about the future status of the industry. This follows the planning school of thought in strategy which was developed by Ansoff (1965). This school of thought which basically views the formation of strategy as a formal process, was further polished by Andrews (1987).

Objective Three: To establish the effects of technological advancement on resource allocations at NMG

Technological disruption pushed the company to shift its focus from its legacy/traditional products in print media, radio and TV and invest in new digital products such as mobile apps and web development so as to take advantage of opportunities brought about by technology advancement. This measure aimed at reaching new markets and counter new entrants in the industry which include players from industries outside the media. In order to achieve this, allocation of resources changed so as to cater for the new needs that arose from technological advancement.

Resources were spared for new infrastructure such as equipment and software for digital news production and dissemination, office space for newly established departments and for training staff on new technological ways of production. Such investments were necessary in order for the company to achieve its objectives during technological changes in the industry. Success of an organization undergoing change does not only depend on formulation of strategy but also how these strategies are implemented (Schilling, 2013). A study by Kute and Upadhyay (2014) proposed that resource allocation in an organization should consider regular training of staff. The study on the company's resources was also founded on the RBV Theory which identifies the uniqueness of an organization's resources as a key determinant on the kinds of strategies that are put in place.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section will outline a summary of the research findings based on the data analysis. It will also provide recommendations for further studies wherever there were limitations.

5.2 Summary of the Study

The objectives of the study were to evaluate the impact of technology on NMG's organizational structures, investigate how technology advancement has influenced innovation and study the effects of technology advancement on resource allocations at the company. This was achieved by analyzing technology as an independent variable with strategy and performance as dependent variables. Data obtained from primary and secondary sources were carefully screened for errors and omissions. They were then arranged thematically to come up with findings under each focus of the study.

This study found that technology advancement has greatly affected organizational structure at NMG. The structural realignments are as a result of redundancies that were caused by new production technologies hence the need for new production processes. This was also a cost-cutting measure since technological advancement was caused a drop in profits in the company. Such downward trends in revenues and profits was as a result of aggressive competition from new entrants in the media industry through digital media technologies.

The company reacted by investing in innovation of its products and diversification into new products and services. With technology causing major changes in the industry, the company also invested in training its staff especially on digital technologies and how to lead change in an organization. Several challenges faced by the organization during technology advancement were identified by respondents in this research. These include resistance to change by staff including some managers who are key to leading change, and lack of set priorities for proper financial use which leads the organization to spend in investments that are not crucial to boosting its competitive advantage in the industry. Resistance to change exists despite the company having reviewed its organizational culture to reflect technological changes within it and in the industry as a whole. This is also happening despite the company having culture change representatives within every department besides a channel that allows all its staff to contribute innovative ideas.

5.3 Conclusion of the Study

This research concluded that technological advancement caused changes in organizational structure at NMG. The company embraced a lean structure as a measure to improve efficiency during technological disruption, and also as a means of cost cutting since the disruption had a negative effect to the company's financial results. Despite the fact that such restructuring led the company to abolish several positions, some new positions were formed in the company to cater for new products, services or procedures that arose from technological advancement. It was evident that NMG was restructuring its top management since a majority of executives were new employees. This was intentionally aimed at setting the company on a new path to maintain competitive leadership in the industry in Kenya.

The study found that NMG has invested in diversifying its products and services. Besides coming up with new products and services through innovation brought by technological advancement, the company had repackaged its traditional products to attract new customers. Concerning new products and services, NMG mainly relied on buyouts or developing its own new products as it shunned mergers. On this basis, the company entered into new businesses that are different from its core business of news production. This was because low news circulation was identified as a challenge. Innovation was also evident on the new procedures used for production. The company put in place measures to involve all its staff in the innovation processes.

The company made changes on how it utilizes its resources. Cost cutting measures were implemented as financial performance was on a downward trend. These measures included merging departments that perform similar functions and terminating redundant positions. Despite this, some new positions and departments were created to cater for new organizational needs that arose due to technological disruptions. Major resource allocations were also focused towards investments in new technological infrastructure and training staff on new skills of performing their tasks.

5.4 Recommendations of the Study

The management at NMG should consider investing in a more robust research and development department which will be crucial in providing a road-map for appropriate decision-making. This way, all decisions ranging from products, resources, staffing and target markets will be made on the basis of scientific research hence lower the risks of taking actions that can harm the company's performance. In-depth research and development is also useful to enhance appropriate use of finances at the organization. Cross-functional communication should be encouraged for key departments such as marketing, broadcast, editorial and production for the organization to implement its innovations effectively. Every individual in the top management must appreciate the need to change during technological advancement. This will help to break status quo which causes a drawback to change management. In order to improve productivity of its staff during technological advancement, the management should invest in reward schemes in order to cover the negative effects of technology such as retrenchments. Boosting staff morale is crucial to improve the company's performance.

5.5 Limitations of the Study

The need to prioritize proper financial use was identified as one of the challenges facing NMG that affects its performance. However, the researcher could not identify the precise activities that are not of priority. This is because publicly available financial reports are not specific on how funds are spent at the company and respondents were reluctant to diverge such details.

Besides this, the company has branches in other East African countries whose activities may have an impact to its performance whereas this study mainly focused on the headquarters in Nairobi.

Technology advancement is perpetual. Due to this factor, the environment at NMG kept evolving even during the period which this research was carried out. Although the results presented in this report were analyzed to generally represent the circumstances at the period of research, some changes may have occurred at the company by the time of carrying out the analysis. It is also worth noting that previous studies related to technology, strategy and performance established that it takes more than five years for a company to gain positive results from its strategies of adopting to technological advancement.

5.6 Areas Suggested for Further Research

Similar studies may be carried out on other media organizations in the country in order to find out how technology advancement is influencing strategy and affecting performance in the industry as a whole. Studies may also be done on similar industries in countries outside Kenya so as to obtain a comparative picture that can provide a source of best strategic practices in the media industry as it faces commercial challenges brought about by technology advancement.

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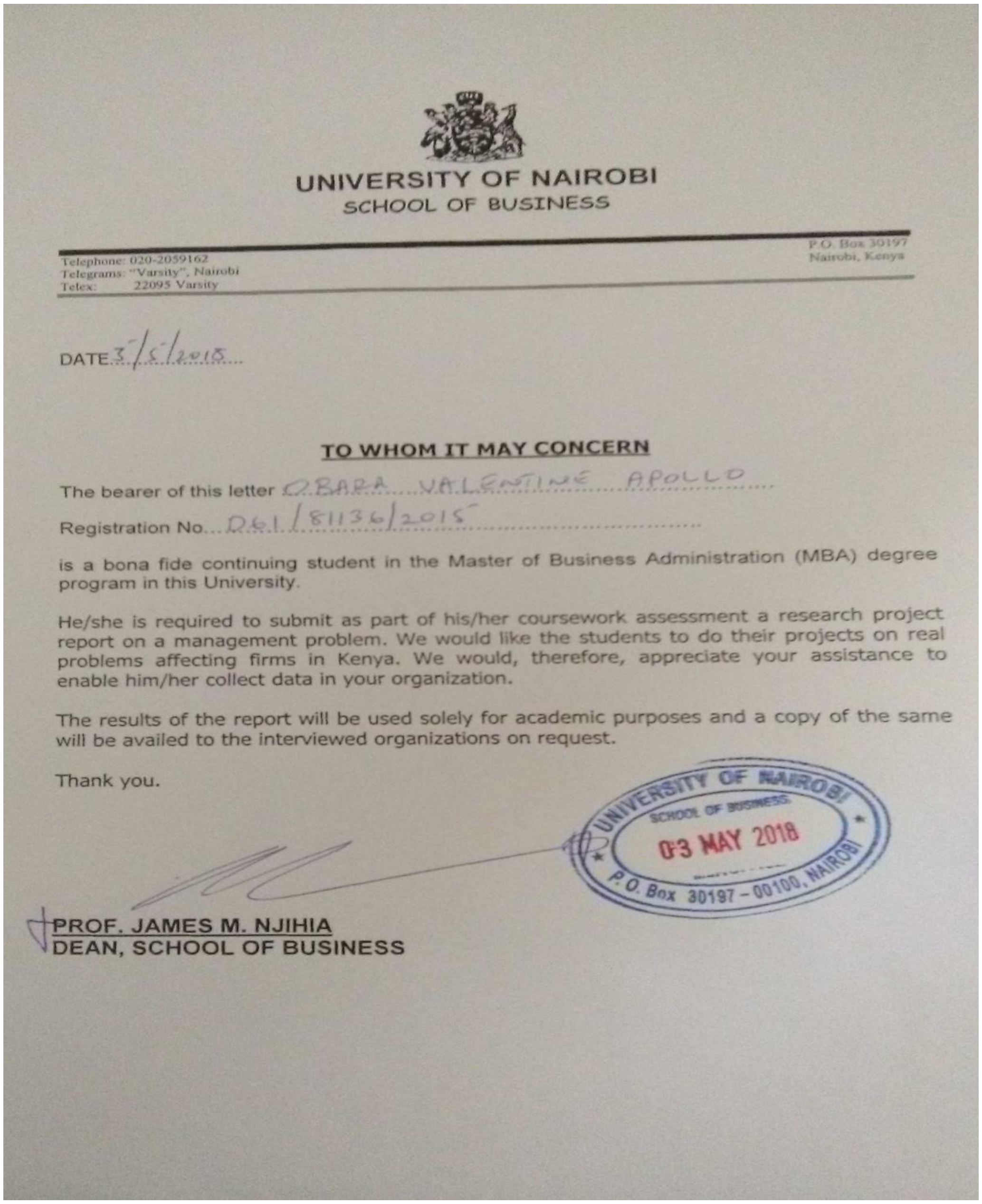
APPENDICES

Appendix A: Introduction Letter for Data Collection



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SCHOOL OF BUSINESS

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P.O. Box 30197
Nairobi, Kenya

DATE 3/5/2018

TO WHOM IT MAY CONCERN

The bearer of this letter OBARA VALENTINE APOLLO

Registration No. D61/81136/2015

is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
03 MAY 2018
P.O. Box 30197 – 00100, NAIROBI

PROF. JAMES M. NJIHIA
DEAN, SCHOOL OF BUSINESS

Appendix B: Interview Guide

SECTION A: Demographic Data

1. Gender: ______________________________________

2. Years of service at NMG: _______________________

3. Department: ___________________________________

4. Highest level of education: ______________________

SECTION B: Effects of Technological Advancement on Strategy at NMG

4. Please describe how technological changes impact the following aspects at NMG.

- Management structure
- Culture
- Human resources
- Infrastructure
- Products
- Production
- Finance

5. How often do these changes occur?

6. What are the main causes of such changes?

7. What measures are used to involve all stakeholders in planning and implementation of new strategy?

8. How many times have you participated in organizing culture change awareness programs prior to implementation of new strategy at the organization?

9. With reference to question 8, explain how the program(s) was planned and implemented.

10. Please describe any challenges that you have experienced in implementing new strategy brought about by technological changes at NMG.

11. In your view, how can such challenges be prevented or dealt with?

12. What measures can be put in place to improve strategy implementation during technology changes experienced at NMG?

13. If you have any further comments please feel free to add them.