UNIVERSITY OF NAIROBI

SUSTAINABLE CHANGE MANAGEMENT

A Case of Telecommunication Contractors

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DECLARATION

I hereby declare that this research project has not been presented for examination in this or any other university.

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DECLARATION OF THE SUPERVISOR

This work has been submitted with my approval as the University supervisor in the Department of Real Estate and Construction Management.

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DEDICATION

I wish to dedicate this project work to my sons Myles and Mathew for helping me appreciate the positives of change in life. My wife Carol for the encouragement, contribution and positive discussions during my research work. To My Family, you are an inspiration.

ABSTRACT

Construction firms implement changes within the project or organizational level. The organizational changes are associated with management, technology, and people or cultural and are the focus of our study. This study sought to examine how change management can be executed effectively among the telecommunication contractors in Kenya. The major challenge being the telecommunication industry which has developed in the last two decades has done so within the background of the traditional construction industry, the contractors and the personnel that would therefore form the backbone of the infrastructure development have the knowledge, skills and the cultural values of an already existing system. There is need of a paradigm shift such that organizations willing to participate in a new, evolving and dynamic telecoms industry have to initiate change in order to adapt.

The review of literature investigates the concept of change management, the factors and organizational components leading to successful change. In this section the research investigated empirical evidence on change management within the telecommunication and construction sector and identified challenges. The research also examined the theoretical foundations that underpin change management and how they inform the present research.

The study adopted the use of both qualitative and quantitative method by sending questionnaires and structured interviews to 48 respondents who are employees of telecommunications contractors based in Nairobi and the findings were converted into ratios or percentage using the likert scale in a way to provide numerical data.

The findings indicate that the approach to change adopted local contractors largely deviated from model recommended by Kotter (2007) in his eight stage model. Kotter (2007) model was adopted for benchmarking the local contractors in change management due to his emergent approach on organizations adapting to change, synonymous with the telecommunications industry.

The study therefore recommends that organization leadership strategy and structure should be contingent on the nature of the telecommunication industry in terms of the environment, production technology and work tasks. Local contractors should therefore adopt a participative / consultative leadership style and an organic structure.

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LIST OF ABBREVIATIONS AND ACRONYMS

CM: Change Management

ICT: Information and Communications Technology

CCK: Communications Commission of Kenya

CHAPTER ONE

INTRODUCTION

1.1   Background of the Study

Change management takes place in the construction industry within two levels; organizational and the project level. The project changes are often in form of design and the organizational level are often in the form of management, technology, people or the cultural issues (Cao et al, 2000). The objective of change management within the organizational level is to manage the introduced changes within an organization in an effective manner (Lazarus and Clifton,2001). On the other hand, organizational changes constitute the processes, change functions or coordination and control, change in the values and beliefs and how they relate to each other to affect project change (Cao et al ,2000).

A number of reasons exist on why change is permanent. Therefore, the best thing is to effectively manage change since the effects of change would differ from the type and nature and the way in which they are managed. Changes need to be managed so as to maximize on the benefits. When considering the drivers of organizational change it has to be said that nothing remains still in the business world. The rate of change that companies face has continued at an increasing pace over time and can be attributed to advances of technology and alignment with customer demand (Lazarus & Clifton, 2001).

Organizational changes are classified according to:

1) The differences in organizations as a result of change .These can be either *strategic* or *non-strategic changes*. *Strategic changes* can be described in form on "non-routine" or discontinuous and they change the general orientation within the organization. On the other hand, non-strategic changes have no impact on the overall orientation within the firm and do not bring any drastic difference (Tichy, 1982).

2) The speed of change within an organization. These are either considered as being incremental or radical changes within the organization. *Incremental changes* are viewed to be done routinely so that the organization can keep pace with the changes in the organization (Cao et al, 2000; Cumming & Worley, 1997).

3) Change initiation - they could be emergent changes or planned. Emergent changes are driven from the bottom up in an open minded and continuous process so as to adapt to the changing

environmental changes. Planned changes result of an action research & an analysis of the social and organizational problems in question (Burnes B. , 1996)

The reasons for organizational change can be placed into two headings: the external reasons and internal reasons. External reasons are the factors which happen outside an organization and which the organization has no control such as political changes, technology, customer expectation, economy or cultural factors. The internal reasons are those changes that happen within the organization and the organization has much of the control in terms of management such as objectives or values in the organization.

A brief history of the mobile telecommunication industry in Kenya shows there has been fast growth in internet usage with the start of liberalization of the Industry in 1999.There have been slow changes since liberalization period within this sector such as establishment of the Communication Commission of Kenya (CCK) from the Kenya Communication Act, 1978, that sought to regulate the telecommunication sector. The CCK has since been renamed to the Communications Authority of Kenya (CAK).

Table 1.1: Country's telecom sector subscriber numbers and penetration rates

Segment	Subscriber (Millions)	Penetration%
Fixed-line (1st Q 2014)	0.19	0.5
Internet (1st Q 2014)	14.8	36.3
Mobile (1st Q 2014)	32.8	80.5

(Source: Communications Authoruty of Kenya,2014)

With There had been a growth in the number of mobile service operators in Kenya in the last two decades to four operators characterized by improved infrastructure to cover all the major towns. The players include: Safaricom, Airtel, Telkom Kenya (Orange, France Telecom) and Essar Telecom Kenya (Yu) (Communications Authority of Kenya,2014).

Figure 1.1:Kenya Mobile Subscribers and Penetration (2002-2014)
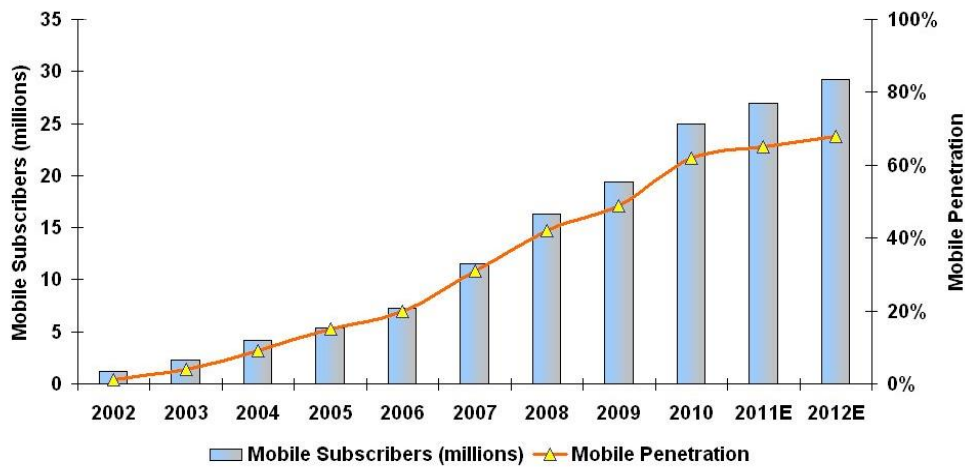
(Source: industry sources, Blycroft estimates c. Blycroft, 2011)

The mobile market in Kenya has seen a fast growth over the past 10 years and there is anticipation for the market to grow in the coming five years through expansion of the mobile data services, more so the mobile banking. Initially the Operators had to engage international firms such as Siemens, Alcatel Lucent, and Ericsson in the turnkey contracts in the construction and development of the infrastructure namely the main switch stations, the base stations and network interconnectivity infrastructure such as optic fiber network. Several factors have with time led to more local contractor's participation with time such as;

1) Cost cutting measure due to stiff competition in the industry
2) Legislation requiring that Local Professionals have to be engaged in the design, approval and implementation processes
3) Geographical dispersion of projects require locals in certain areas hostile to foreigners
4) Growth of the local construction companies and adaptation of new skills and hence demanding more participation and involvement in the Telecommunication Industry.
5) Shift in the Marketing and Public Relations strategy of the network operators to have more participation by the local companies.
6) Legislation requiring the contractors be registered with the National Construction Authority (NCA) and this coupled with local government policy and political pressure to create more jobs for indigenous people.

The involvement of the local construction companies in the rapidly growing mobile industry has had its fair share of challenges and this is evident by the low participation by the local companies and the inability to sustain and maintain the business and the client base.

1.2 Statement of the Problem

The telecommunication industry can be described as an emerging technological field. Emerging technologies are defined as science based innovations that have the potential to create a new industry or transform an existing one (Day & Schoemaker, 2000). Emerging technologies are created by an expanding knowledge base, where applications to existing markets are undergoing innovation, or new markets are being tapped or created. The fact that change processes have to take place within an existing system there is need for a paradigm shift in order to shift the boundaries of the existing system (McGeorge & Palmer, 1997). These boundaries may be in form of ways of thinking and acting that are characteristic of a body of knowledge and the social structures that underpin those thought and actions.

The telecommunication industry has been synonymous with a new knowledge base which is dynamic and ever changing. Organizations willing to be involved in this industry have to adopt a learning organization model with new sets of skills to be continuously learnt. The new knowledge base is not limited to adoption of new technology and skills in the telecommunication field but the organizations have to gain broad knowledge in construction related specialized fields and work processes. Local contractors involved in traditional construction industry have to change their organizational processes, work processes and most importantly behavior and culture. The telecommunication industry which has developed in the last two decades has done so within the background of the traditional construction industry. The contractors and the personnel that would therefore form the backbone of the infrastructure development have the knowledge, skills and the cultural values of an already existing system.

The client in the telecommunication industry comprises of foreign companies that have implemented infrastructural projects in other countries and regions. Local contractors therefore have to deal with a client that has; Complex project management processes; Well documented and refined construction procedures and processes which are unique to the infrastructure in the telecommunication industry; Enhanced and well developed reporting systems; Quality Management Systems which have already been adopted in developed countries; Strict practice and adherence to EHS (Environmental Health and Safety) practices

There is therefore need for a cultural shift in the organizations that make up the construction industry for meaningful change to be effected and be involved in a new evolving and dynamic industry. Transformation programs require the aggressive cooperation of many individuals in order to take off. Sometimes executives underestimate how hard it can be to drive people out of their comfort zones. Sometimes they grossly overestimate how successful they have already been in increasing urgency. Sometimes they lack patience (Kotter, 2010 HBR).

According to the National Construction Authority (NCA), most local contractors in Kenya employ workers who lack the adequate formal training and skills to work with new equipment and technology (Muiruri, 2016). According to NCA (2014), only 25% of workers in construction jobs are skilled workers with more than 50% lacking formal training in their respective sectors. Accordingly, technology adoption is still a challenge to local contractors.The work processes in the telecommunication industry have introduced new ergonomics practices that have to be adopted by the skilled and unskilled craftsmen that are involved in the implementation of the projects. This ensures that projects can be implemented while ensuring the comfort of the implementing teams which enhances productivity and minimal risk to injury which can lead to discontinuity of work and legal suits to the organization. The Telkom operators companies have a well-developed health and safety management systems to enable them monitor the compliance of their contractors to the regulations. The Telkom operators are answerable to shareholders not only locally but abroad and have to protect their image and avoid lawsuits that might run them bankrupt due to damages and injuries to the public that might occur due to the negligence of their contactors during the construction of their infrastructure. Local contractors are therefore faced with stiff penalties and in severe cases loss of business if they are found to be flouting the rules or being non-compliant

The telecommunication industry comprises of different disciplines that have to be well coordinated in order to achieve the project objectives. The different disciplines consist of project manager, network planning engineers, physical planners, system engineers, geotechnical engineers, civil engineers, structural engineers, quantity surveyors, electrical engineers, mechanical engineers and telecom engineers. Local contractors therefore have to enhance their project management skills in-order to manage such diverse and multi-skilled groups. The leadership skills required for building effective communication channels and co-ordination in the telecommunication projects is often at a higher threshold than for the traditional construction projects which are less dynamic and tend to be more static.

Sustainable and effective change management is important for sustainable project delivery. Companies not able to implement change effectively and in totality eventually fade away and die amidst stiff competition and more demanding customers. This is prevalent in the new technological fields whereby companies are not able to sustain their customers and build on already captured business opportunities. Studies indicate that for majority of the organizations, there are two or three changes that do not succeed (Harold and Alan, 2005). The telecommunication industry having being invented and introduced by corporate firms and organization from developed countries into the developing countries brings about foreign contractors in the building and construction of the infrastructure. The local companies therefore have to compete with these foreign firms not only to retain the business but also to ensure that the meet their financial goals of return on Investment. For the local companies it can no longer be as business as usual and have to adopt construction methods and new management techniques.

It is quite a challenge to manage change but part of the changes is lack of clarity on the factors that affect sustainable change management. This is due to the fact that every manager looks at the initiative out of a different line of thought (Harold L. Sirkin, 2010 HBR).Nonetheless, for the organizations that are involved in the change management, it comes out of slow improvement within the organizations. One challenge is that the business environment changes at a high rate as compared to the organizational change strategy, that from time to time has not succeeded in developing in line to the strategic changes (Hannagan, 2005).In the reality, it is a challenge to make sure that the organization has been aligned to the external factors that influence change since each cannot be detected on their own. The contracts for the development of the infrastructure normally comprise of turnkey contracts and therefore the local companies have to deal with the multi-disciplinary nature of the industry which is far much different to the traditional contracts. Local companies therefore have to build capacity within their organizations in-order to be able to meet on project deliverables. These require that the company build their internal capacity or form complex partnerships to enable them deliver on the turnkey contracts. This brings about restructuring of the organization in order to accommodate new partners or to manage the multi-skilled organization.

Based on the contingency theory, there is no one best way in which to explain of the structural changes in the organizations. It relies on the circumstances, considered as being contingencies, for instance environment or technological changes and every organization has a different contingencies. The local firms have to adapt to such changes so as to remain relevant. This is

by ensuring that they adopt strategies that are in line to the changes in the environment such as total quality management, reengineering, restructuring or cultural change.

In a research by Koech (2005), it was concluded that the form of organization structure adopted by the local contractors explained the low level of innovation and its adaptation in construction industry. The type of organization structure is dependent on the shareholder's strategy, availability of resources to finance the structure, succession planning and availability of required skills. The form of organization structure is a clear indicator of the system planning and maturity of the organization. Construction companies tend to develop functional departments in their organization structure that support their core business and ignore leadership and human resource management as important support functions in the hierarchy. These greatly impacts on the organizations attractiveness and ability to retain employees and lose out on trained personnel who are critical to the change management process. Management may also allow human resource systems to remain intact even when they are clearly inconsistent with the new ideals.

The most general lesson to be learned from the more successful cases is that change process goes through a series of phases that, in total, usually require a considerable length of time. Skipping steps creates only an illusion of speed and never produces a satisfying result (Kotter, 2010 HBR). Secondly critical mistakes in any of the phase can have a devastating impact, slowing momentum and negating hard won-gains. Perhaps because we have relatively little experience in renewing organizations, even very capable managers often make at least one big error. The rollout of the infrastructure in the telecommunication industry can be described as rapid and in geographically dispersed regions. This can be attributed to the following;-

1) The period to rollout the infrastructure and the geographical as a pre-condition for licensing by the Authorizing Agency, The Communication Authority of Kenya

2) Pay back on Investment which has to be done within a short period of time before the technology becomes obsolete

3) Competition by other Operating agency

4) Return on investment is dependent on tapping on large populations to increase on revenues

5) New frontiers that emerge due to discovery of natural resources that initially had been considered not been economically viable

6) Change in government policy and legislation leading to creation of new economic blocs e.g. creation of new county boundaries that initially were marginalized

Local contractors are therefore subjected to strict time lines with heavy penalties which might lead to financial loss and this set time limit is a major key performance indicator (KPI), which form a basis of retaining or losing on future contracts. This brings about the need to adopt to new management processes and work processes in order to bring about efficiency in project delivery within limited time and manage the change effectively. Local companies therefore cannot afford to retain traditional practices and management processes if they are to retain the business. The Local companies have to build change capability and capacity in the organization, resulting in improved ability to respond quickly and effectively to new situations brought about by the implementation of the projects in new environment and geographical conditions.

The adoption of new technological advancements to enhance business performance is crucial to effective running of business. These might be hampered by the people and their cultural setting and their perception of the new technological advancements. Individuals in the organization may be slow in adopting the new technology whereas in the business environment the new advancements have led to higher expectations from the customers and increased pressure in terms of performance and level of service.

Local companies in the telecommunication industry therefore find themselves in an environment in which they have to initiate internal change process knowingly or where the business environment exerts a need to change for the company externally. Most local companies lack prior knowledge of managing the change process and therefore are not able to deal decisively with the areas in an organization that will make the change process sustainable.

For any identified changes to be successfully adopted , merely introducing some new pieces of equipment or a new process , is unlikely to have any major impact on the organization unless introduced as part of an overall and coordinated change process. Effective change would have to involve both the technical and managerial staff. The advice penned by the sixteenth century Italian courtier Niccolo Machiavelli is often quoted by those involved in undertaking this task "There is nothing more difficult to take in hand, more perilous to conduct , or more uncertain in its success , than to take the lead in the introduction of a new order of things'' (Niccolo M, 1532)

1.3 Research Questions

The study sought to answer the following questions:

    i.   What are the success factors which influence change management by telecommunication contractors in Kenya?

   ii.   What are the organization components which influence change management by telecommunication contractors in Kenya?

  iii.   What are the leadership style and organizational structure that will lead to sustainable change management by telecommunication contractors in Kenya?

1.4   Study Objectives

The objectives the study was to examine local construction firms involved in the telecommunications industry and was;

    i. To evaluate the success factors that influence sustainable change management

   ii. To evaluate the organization components that influence sustainable change management by telecommunication contractors in Kenya.

  iii. To identify the leadership style and organizational structure that will lead to sustainable change management by telecommunication contractors in Kenya.

1.5   Research Proposition

The study proposition is that;-

Sustainable change management in the telecommunications industry in Kenya is influenced by the organizational leadership and structure adopted by an organization.

1.6   Importance of the Study

To establish if Local Companies have any laid out strategy in adapting to new and emerging technological fields. This aim of the study was to assist those involved in the local companies to; recognize the challenge; manage the systemic change and upgrade the leadership process

1.7   Scope and limitations of the study

The study focuses on sustainable change management at the telecommunications industry. In particular, it focuses on local contractors in civil works and mobile telecommunications. The area of study is contractors based in Nairobi County that has been purposely chosen due to the fact that the mobile operators and the contractors have the operation based within the city.

Finally, this being an academic work is constrained to be finished within a given time period and budget and hence impractical to focus in the whole country.

1.8   Operational Terms

For the purpose of this study, the following definitions are adopted:

(1) Change is defined as "the act or an instance of making or becoming different, an alteration or modification" (Concise Oxford Dictionary).

(2) Change Management- it is a structured process that involves human factors to plan and implement a given project through behavior change to meet anticipated objectives (Claire & Douglas, 2010)

(3) Emerging Technologies are defined as science based innovations that have the potential to create a new industry or transform an existing one (Day & Schoemaker, 2000). Emerging technologies are created by an expanding knowledge base, where applications to existing markets are undergoing innovation, or new markets are being tapped or created.

(4) Definitions of Culture

For the purpose of this study, culture are beliefs and expectations shared by members of a society or an organization (Schwartz and Davis, 1981:33). It can also

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

This chapter reviews recent and relevant literature on this topic. The review forms the foundation of the research by allowing the researcher to build on previous studies and findings so as to inform the direction of this study. The review is guided by the research objectives and the theoretical bases of the study. Therefore, first, this section investigates the concept of change management, the factors and organizational components leading to successful change. Second, researcher will investigate empirical evidence on change management within the telecommunication and construction sector and identify challenges in this area. Then, the chapter will examine the theoretical foundations that underpin change management and how they inform the present research. Finally, the chapter will summarize the literature and highlight the research gaps that inform the current study.

2.2   The Concept of Change Management

Different scholars have presented different approaches to defining and understanding change management. Nickols (2008) presents a deep definition which is divided into four parts: the area of professional practice, the task of managing change, the body of knowledge, and a mechanism of control. The first part involves the strategy for change which can either be a reactive or proactive approach. The reactive approach is where change is a response to external triggers outside the organization whereas proactive change is a transformation that anticipates future changes (Dentinger & Derlyn, 2009). The second part refers to the view that change has to be led by professional change agents. Third, the author claims that change management comes from different field and disciplines such as sociology, psychology, business, economics, and engineering. The final part emphasizes the idea that change management necessitates standards, processes and procedures that "control" the change (Nickols, 2008).

On the other hand, Beech and MacIntosh (2012) define change management as *the basis of personal skills in terms of assessing situations, adapting and learning from previous experiences in order to build new ones based on the understanding of it.*Bevan (2011) views change management as consisting of a set of plans, processes, actions, and decisions that guide the transition from point A to B. from such varied views of change management, literature can sometimes be confusing on the concept of change management. However, this thesis will adopt

the definition by Claire & Douglas (2010) which states that change management is *the human-focused work of engaging and preparing people to succeed in the new world, facilitating the transition from the present to the future.*

The concept of change management is crucial to any organization. Today, most organization operate in complex and often dynamic sectors and environment where change is common. The fact that organizations involve people, processes and technology means that changes are ever present and should not be ignored. Research has shown that most organizations fail at implementing change initiatives (Burnes & Jackson, 2011). Therefore, change management becomes critical to the change process because it helps companies organize their resources and time to ensure successful change. Moreover, technological advancements in the past decades have increased the changes that occur in most organizations (Jörn, 2016). In the telecommunication industry, the past ten years alone have seen the rise of mobile and internet usage and penetration at unprecedented rates.

Unfortunately, it is evident that fast-paced changes in technology bring about fear resulting in possible resistance to change from employees and management (Jörn, 2016). In such a chase, careful management of the change process can ease tension and help smoothen the transition. Moreover, creating a culture of change allows management to be adaptive and innovative, two aspects that can create competitive advantage and provide growth. Accordingly, change management is more crucial now that it has ever been.

2.3 Success factors that influence change management sustainability

2.3.1 Leadership styles

Successful change requires strong leaders who are committed, adaptable, and have the resolve to see the change through (Miller, 2001). The cost of failure can be very high to both the manager and the organization and hence good leaders have to understand these risks and manage the change to reduce or mitigate these risks to ensure successful change. Accordingly, it becomes important to understand how leaders and their styles affect successful change management. Literature indicates that leaders who show competencies of "vision" and "innovation" along with other crucial leadership competencies have more likelihood of success in managing change (Abbas & Asghar, 2010). Therefore, there has been a consensus among scholars that leadership styles do have an influence on the success of organizational change (Al-Qura'an, 2015; Baesu & Bejinaru, 2013; Holten & Brenner, 2015).

Importantly, Baesu and Bejinaru (2013) highlight that different phases of the change process require leadership styles with different focuses. For instance, the change planning phase requires inspirational leaders whereas the launching of the change initiative will require commanding/logical leadership styles. Therefore, organizations need to ensure that they have the right mix of leadership styles within their management to ensure that they have leaders for all phases of change. Moreover, Holten and Brenner (2015) note that managers need to have all-rounded leadership qualities that are suited to different change processes because different changes often require different leadership qualities. Accordingly, the literature suggests that for organizational change to be successful, there is a need for having either managers with a well-rounded portfolio of leadership skills or have different managers each with different leadership style.

Most literature on the leadership styles in management in organizations in Kenya has focused on project management and strategic management (Chege & Gakobu, 2017; Gwaya, Masu & Oyawa, 2014; Keter, 2015; Muteti, 2013; Ochieng, 2012). There is a dearth of research on leadership styles in organizational change management particularly in the telecommunication sector. Ocharo (2012) studied the factors that influence organizational change in the telecommunication industry in Kenya and noted the importance of leadership, communication and employee involvement. However, the author simply mentioned the importance of leadership and did not delve deep into leadership styles.

Mutali (2017) did address the relationship between strategic leadership and change management in Kenyan organizations. The study found that organizations exhibited different leadership styles among its management and that employees cited involvement in decision-making processes as influential to change efforts. The author also highlighted the need for organizations to select leaders whose style, skills and values aligned with the organization's process of change management. However, the study focused on Kenyan banking industry and hence there is a need for similar research in the telecommunication industry. Concerning specific leadership styles, Chege and Gakobu (2017) found that transformational and transactional leadership styles were the most effective in enhancing the performance and strategy of organizations in the telecommunication industry in Kenya. On the other hand, laissez-faire leadership style exhibited the least influence on the performance of organizations in the sector. Such leadership style is suitable where workers are highly skilled and can conduct work unsupervised. Unfortunately, in the telecommunication construction sector, most workers

are unskilled and lack adequate capabilities and skills for the job. Therefore, laissez-faire style would not be applicable in leading changes in the sector. Similarly, Oyaya (2016) found transformational leadership to have the most positive influence on performance and management of construction projects in Kenya even though the study found that transactional leadership resulted in the least improvements in overall performance.

Accordingly, these studies support the view of literature that transformational leadership results in qualities such as reactiveness and participative leadership which positively influence the performance of employees in the organization. In fact, Murimi (2016) noted that transformational leadership improved the ability of management to find solutions, build the relations between the contractor and consultants and resulted in consensus building which positively improved the completion of the construction. Importantly, though it is evident that the above literature focused on project constructions or telecommunication companies and none of them delved into contractors in the sector.

2.3.2 Technology adoption

In the telecommunication industry, the pace of change has been remarkable owing to global trends of interconnection and advancements in technology. With changes in the level of technology coming fast, the telecommunication industry players have to invest in new technology and keep pace with the market environment and demand of customers. For instance, the change from 2G technology to 3G technology and recently 4G technology requires significant new expertise and skills among contractors. Unfortunately, the new technology requires new knowledge base and specialised skills among contractors for technology adoption to succeed. Technology innovation can completely change the way business activities are performed by transforming operations, skills required, processes and standards (Attar & Sweis, 2010).

Therefore, local contractors have to adapt fast or risk being phased out by foreign contractors who have the skills and experience with new technology. However, Youssef, Hadhri and M'Henni (2014) noted that firms in emerging economies face difficulties in adopting technologies due to structural weaknesses in management and governance of firms. The authors noted that new technology required new organizational practices and management had to be keen to adopt the newest technology that could improve processes and operations and give the firm competitive advantage. Unfortunately, most organizations, including local contractors in developing countries are more reactive than proactive in technology adoption (Youssef, Hadhri

& M'Henni, 2014). Therefore, local contractors only seek to adopt new technology after the necessity becomes apparent or in the face of stiff competition from foreign contractors.

Unfortunately, a reactive approach to technology in a dynamic industry like the telecommunication sector means that local contractors are always at a disadvantage and will struggle to meet the construction needs of mobile technology. Moreover, according to the National Construction Authority (NCA), most local contractors in Kenya employ workers who lack the adequate formal training and skills to work with new equipment and technology (Muiruri, 2016). According to NCA (2014), only 25% of workers in construction jobs are skilled workers with more than 50% lacking formal training in their respective sectors. Accordingly, technology adoption is still a challenge to local contractors.

Importantly, effective adoption of technology requires organizations to change their processes, operation, and sometimes the employee skill set. However, there is a shortage of research on the technology adoption in the telecommunication sector particularly its effect on change management. Njuguna (2013) studied the effect of innovative technology strategies on the performance of firms in the telecommunication industry. According to Njuguna (2013), the importance of information technology (IT) as a key enabler for change and a driver for change has improved the ability of organizations to conduct change initiatives such as product diversification. Wamuyu (2014) also studied the impact of information and communication technology (ICT) adoption in businesses in Kenya. Even though the focus was on ICT, the author noted the challenge most organization faced due to rapid changes in technology and the short-lived nature of technology. For instance, by the time most telecommunications companies had developed their 3G infrastructure fully, the need for investment in 4G infrastructure has become apparent. Such fast-changes means that telecommunication companies have to keep transforming their infrastructure and local contractors need to keep up with the technology. Accordingly, research on technology adoption and its importance to organizations is important.

2.3.3 Processes, Rules and Procedures

Formal processes, procedures and control systems are all important tools that management can use to influence the change process and increase the likelihood of success of the initiative. Management control systems are formal information based routines that most managers utilize to either maintain or change patterns in the activities of organizations (Simons, 1995). Formal processes and procedures are official actions, measures or methods that organizations apply in their efforts to influence the direction of change efforts. Unfortunately, research indicates that

managers fail to effectively utilise these tools when implementing change thus leading to failure of change initiatives. Ford and Greer (2005) studied the relationship between the use of control systems by management and the achievement of planned organizational change. The authors found that there was a strong correlation between usage of control systems based on the outcomes of the project and the success of the change project. However, the study noted that management used control systems much less extensively than other elements of the change process. Therefore, this research indicates that formal control systems are often underutilized by management despite the fact that they influence the success of change, particularly in monitoring outcomes.

Armenakis and Schraeder (2001) in a telecommunication company revealed that organizational change was strongly related to the organizational communication media which is a process variable. The authors concluded that the process of communication of organization vision, mission, or goals will thus influence the success of change initiatives. Moreover, Baesu and Bejinaru (2013) noted that leadership strategies influenced the success of procedures and control systems in organizational change procedures and processes. Therefore, organizations that utilized formal procedures and control processes effectively were more likely to succeed in their change efforts. While not much research is present on the influence of formal processes and control systems on the success of change, the above literature highlights their importance. Accordingly, much more research is necessary on the link between these two tools and success of organizational change to offer meaningful contribution to change management.

2.4 Organizational Components and Change Management

Figure 2.2 brings forth the organizational fabric model. The model provides 8 key threads which are interwoven into the organization. It can be noted that well woven plan in change management manipulates the threads in a strategic manner in order to ensure successful change. When there is a plan that is poorly woven, it fails to succeed. Based on the flexibility of the thread, it influences the level of success in change management (McCarthy & Eastman, 2010)

Figure 2.1:Major organizational components that influence the outcome of a change management Programme
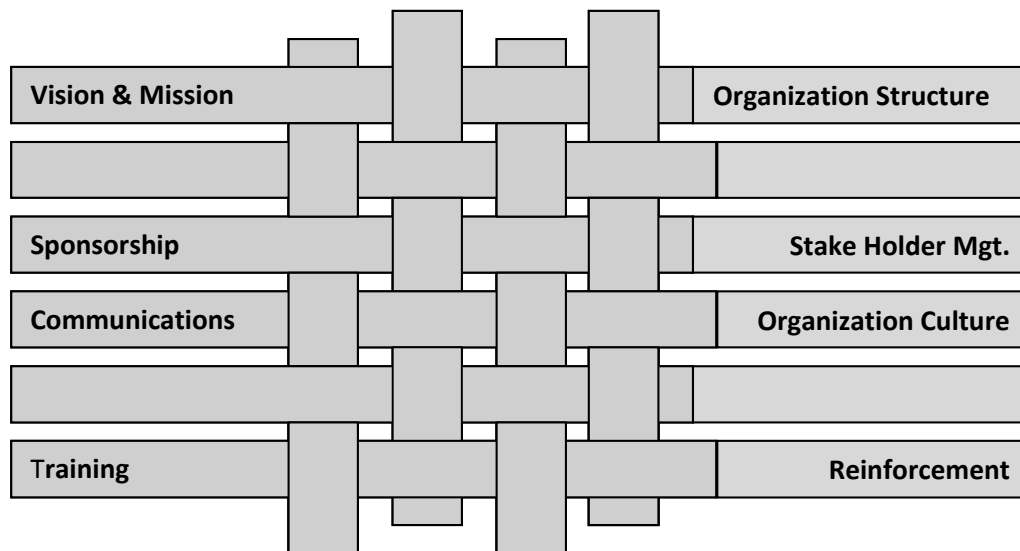
. *(Source: McCarthy & Eastman, 2010).*

2.4.1 Organizational structure (Hierarchy)

Organizational structure refers to the approach that an organization takes in arranging jobs and people to achieve its goals (Carpenter, Bauer & Erdogan, 2010).Kakucha, Simba and Ahmed (2018) found out that there was a positive and significant relationship between organizational structure and change management. Therefore, organizational structure can either promote change or be a force of resistance to change initiatives. Different organizations have different organization structures with the most common structures being the functional and divisional structures. According to Carpenter, Bauer and Erdogan (2010), functional structures are present in organizations that group jobs based on similarity in functions and specialization of roles. On the other hand, divisional structures involve departments which represent unique products, customers, services or geographic locations.

According to Awa (2016), the functional structure works well in a stable environment where changes within the industry are minimal and products are standardized. On the other hand, divisional structures are more tuned to changes and operate best in dynamic and fast based sectors. However, where an organization is small and with few products functional structures can present significant advantages concerning efficiency and cost-effectiveness (Carpenter, Bauer & Erdogan, 2010). In the telecommunication sector, local contractors are mostly small firms with few products and services. They can, therefore, benefit from functional approaches.

However, due to operating in a dynamic industry, they also need flexibility and capacity to work in changing environments.

Carpenter, Bauer and Erdogan (2010) highlight that the best organizations use a mixture of both structures thus gaining the advantages of agility during times of change and efficiency in operations that functional structures bring. Accordingly, a mix of both functional and divisional structures is best suited to contractors in the telecommunication industry. Other crucial organization structures involve the level of hierarchy in the organization. Research has shown that the level of the hierarchy has an influence on the success of organizational change (Jones et al., 2008). Jones et al. (2008) found out that there is the need for change agents to consider the needs of different organizational groups to achieve effective and successful change.

There are differences that exist in attitudes, feelings and needs among the various levels of an organization which might either support or oppose change efforts. Accordingly, for change to be successful and sustainable, change management has to pay important attention to staff consultation and involvement, concerns of employees, and effective communication to employees at all levels. Simply, change cannot occur without the full support of employees and managers at all levels of the organization. However, research on the organizational structures in organizational change management presents some gaps. First, the lack of research in the telecommunication industry is not only glaring but also surprising given the dynamic and fast-paced changes that are present in the sector. Jones et al (2008) focused on hierarchical levels and did not account for the influence of other structural differences in organizational change.

2.4.2 Organizational values (culture)

Organization's cultures are particular sets of value, beliefs, customs and systems that are unique to that organization. Though Peter and Waterman (1982) view that organizational culture is the prime determinant of organizational performance has been highly influential and received much support, other writers stress different but less important aspects of culture. These aspects are: '*to provide relatively fixed patterns for handling and solving problems…..and to……reduce uncertainty for members of the organization when confronted with new situations*' (Peter & Waterman, 1982).

Therefore, what we can say about culture is that it defines how those in the organization should behave in a given set of circumstances; affects from the most senior manager to the humblest clerk; ensures that the actions of a member of an organization are judged by themselves and others in relation to expected norms of behavior and legitimizes certain forms of action and proscribes other forms. The latter view is supported by Turner (1971) who observed that cultural systems contains elements of 'ought' which prescribe forms of behavior or allow the behavior to be judged acceptable or not.

There is a multitude of studies that have investigated and affirmed the influence of organizational culture on different aspects of organizations. Onyango (2014) studied the influence of organizational culture on change management in vocational training institutes and found a strong correlation between organization values and success of change. Similarly, Wanjohi (2014) also found the organizational culture to be a major determining factor in how Kenyan organizations implemented and evaluated change initiatives. In the telecommunication industry, Mwendwa (2014) noted that the organizational culture exhibited variables such as employee involvement, communications and leadership. Importantly, even though the study did not focus on change management, the author noted the effects of culture on innovation intention and infrastructure development, aspects which create most jobs for local contractors.

Similarly, the majority of respondents in a study of change management in the sector by Ocharo (2014) also agreed that culture was the most important aspect responsible for the success of change in the industry. Therefore, the beliefs and values that industry players have such as the culture of growth or approach to communicating initiatives determine their capacity to identify, plan and implement changes in the telecommunication sector. However, these research studies focused on other industries in Kenya and none of them looked at the case of contractors in the telecommunication industry. Importantly, local contractors in the telecommunication industry exhibit a varied and unique Kenyan culture that requires further investigation. Additionally, the study by Mwendwa (2014) also focused on performance factors and not on change management. However, the study provided important foundational work for future studies on organizational culture in the industry particularly with a focus on leadership styles.

2.4.3 Organizational vision and mission

Every organization has a set of statements that constitute its vision and mission. While most of the time vision and mission are treated similarly, there are differences in the terms. According

to Wangari (2016), the mission refers to what the organization is all about whereas the vision is a reflection of what the organization aspires to become in the future. Therefore, the mission and vision constitute the definition of the business of the organization and act as a guide to all strategies and actions of the organization. Importantly, the vision and statement need to reflect the values and beliefs of the organizations. The literature emphasizes the need for organizations to communicate the vision and mission to all stakeholders so that they can understand the purpose and goals of the organization (Papulova, 2014). In the telecommunication sector, the vision and mission of the organizations are also important to the overall performance of the organization.

In a study by Mwendwa (2014) noted the need for leaders in the telecommunication sector to articulate their vision and mission to employees through clear and effective channels of communication. Similarly, Ndirangu (2017) also showed that employees in the telecommunication industry perceived leaders as not effectively communicating the vision, mission, and values of the organizations yet it was important during times of change. Concerning change management, leaders of change have to have a clear vision of the change project and communicate the same to employees adequately (Baesu and Bejinaru, 2013). Notably, none of the above literature adequately and empirically investigates the influence of vision and mission on change management despite highlighting its importance to organizations.

2.4.4 Stakeholder management

For change to be successful, both management and employees have to be contained in the change process. According to Burnes (2009), change involves all people in the organization and management alone cannot achieve the objectives of change initiatives. However, in the telecommunication industry, studies have shown that managers often time fail at consulting widely during change initiatives particularly with lower levels of employees (Ndirangu, 2017). Mlanya (2016) and Wanyama (2013) highlighted the importance of involving stakeholders in all phases and process of the change project and the need to keep them updated on the progress of the change initiative. Stakeholders have an interest in the business and thus any gains or losses made by the change effort will likely affect them.

Despite numerous studies on change management and stakeholder management, there are few studies that have studied the link between stakeholder management and involvement and change management. In particular, the context of local contractors in the telecommunication industry presents a unique case. The multitude of projects and geographical locations involved

in telecommunication infrastructure projects mean that most stakeholders in local contracting companies are rarely present in the construction site. Therefore, their involvement in change projects can sometimes be limited. Further studies are necessary to investigate how such limited involvements influences the success of major change initiatives in the sector.

2.4.5 Communication planning

In times of change, communication is important in ensuring that employees understand their roles in the change initiative. Communication is a useful tool in announcing, explaining, and preparing employees for change (Malek & Yazdanifard, 2012). The first step in managing change is building awareness around the need for change and creating a desire among employees. Therefore, initial communications are typically designed to create awareness around the business reasons for change and the risk of not changing. Likewise, at each step in the process, communications should be designed to share the right messages at the right time.

Communication planning, therefore, begins with a careful analysis of the audiences, key messages and the timing of those messages. The change management team or project leaders must design a communication plan that addresses the needs of front-line employees, supervisors and executives. Each audience has particular needs for information based on their role in the implementation of the change.

Several studies have highlighted the challenge of poor communication planning in times of change for companies in the telecommunication sector. Managers in the sector fail at clearly elaborating the need for change and the strategic plan to achieve those goals (Ndirangu, 2017). Additionally, Ocharo (2014) studied the factors that influenced change management in the telecommunication industry and found effective communication to be extremely useful in change management efforts. Specifically, the authors found out that internal communication and the language of communication were important aspects of the change process. These findings are in line with Kotter's (1958) eight-step model which emphasizes the need to communicate the vision of the change effort thoroughly.

2.4.6 Training development

Training is the cornerstone for building knowledge about the change and the required skills. Project team members will develop training requirements based on the skills, knowledge and behaviours necessary to implement the change. These training requirements will be the starting point for the training group or the project team to develop training programs.

In recent years, the concept of organizational learning and training is gaining wide acceptance and application in organizations. According to Ikinci (2014), for an organization to effect behavioural changes in its employees there is need to change their values, goals and knowledge in line with the new behaviour. For this reason, training is an essential part of organizational change. In the telecommunication industry, advancements in technology means that workers have to keep learning new skills to be able to implement all new mobile technology. Research shows that rather than wait for technology and learn when needed, organizations should adopt a culture of organizational learning where they can foresee future transformations and make necessary changes beforehand (Ikinci, 2014). Research has shown that organizational learning is related to success in change because organizations develop the capacity to adapt to dynamic conditions and make change a continuous process (Shahrabi, 2012; You et al., 2017).

2.4.7 Reinforcing & Institutionalization

Change management theory emphasizes the need to reinforce changes and prevent people from reverting to old habits or processes (Burnes, 2009). Both in Lewin's (1958) three-step change model and Kotter's (2007) eight-step model, the final phase involves reinforcing the change to make it part of a new culture of the organizations. One way to reinforce change is through performance appraisal. Lawler (2013) argues that when designed correctly, performance appraisal can be a major force in ensuring the success of change. The author notes that in todays rapidly changing business environments, performance management systems should be tailored towards incentivizing people to improve and learn new skillsets. While this view is yet to be empirically tested, it is an approach that offers a possible route for organizations to motivate change efforts and institutionalize new processes and procedures. Further research in the benefits of performance appraisal to change management can increase its application, particularly in the dynamic telecommunication sector.

2.5   Challenges to change management in the telecommunication sector

2.5.1   Leadership challenges

One of the key challenges of change management is ineffective leadership. Research shows that leadership plays an important role in the change process. Unfortunately, many a times leaders fail to adequately sponsor the change efforts. Gershom (2016) pointed out that the lack of support by top management negatively influenced the implementation of change initiatives in the mobile technology industry. According to Burnes (2009), poor sponsorship directly

impacts the value of change projects while also inhibiting progress. Moreover, Gershom (2016) studied strategic change management in the telecommunication industry and found that employee involvement was a problem among most firms in the sector. Leaders in the telecommunication sector have exhibited a tendency not to involve the lower level of employees in the change process. Unfortunately, employees tend to interpret lack of involvement as an indication of lack of faith in their abilities and will be less motivated to support the organization's change efforts.

2.5.2 Organizational challenges

The lack of behaviour organizational structures can be a hindrance to success in change projects (Gershom, 2016). Okoth (2013) noted the need for effective structures of communication, planning, and management of resources to ensure that change is successful. Insufficient resources for change management or lack of formal approaches and strategies to change will always result in ineffective change or failure entirely. Behaviour, the change initiative may miss the mark or falter in later stages. Additionally, local contractors face a unique and complex business environment where changes are fast-paced and timelines are strict, therefore, the contractors have to adopt complex structures and business process in order to effectively and efficiently manage large projects. Such organizational structures, processes and operations make change management complicated and inefficient. Moreover, the organizational structure of local contractors often consists of people from different fields and disciplines. Research has shown that managing change in such multi-skilled and diverse interdisciplinary teams can be challenging due to ineffective communication and coordination (De Bruijn, 2012; Paton & McCalman, 2008). Accordingly, how management deals with different components of the organization will determine the success of change projects.

2.5.3 People Issues in Change Management

Employees are the enablers of change. Therefore, the success or failure of change will depend on the ability of management to motivate and involve employees towards change efforts. Unfortunately, in the telecommunication sector Gershom (2016) has previously reported a lack of monitoring, employee involvement, and support from top-level managers which demotivates employee from participating in change fully. Research has shown that focusing more on the change processes rather than people issues can be detrimental to the success of change (Guler, 2010).Hiatt and Creasey (2003) indicate successful change management requires that employees have awareness and desire to implement change, knowledge and ability to effect

and reinforce change. Unfortunately, in the telecommunication sector, contractors often employ workers who lack the knowledge and skills to implement change (NCA, 2014). Accordingly, change efforts are likely to fail at various phases of the change process due to lack of knowledge, ability, desire or awareness.

One of the main reasons for the failure of change is that human beings have a tendency to prefer to maintain the status quo. Ocharo (2014) while studying factors influencing change management in the telecommunication sector noted that resistance to change was a significant challenge in early phases of change projects. The author noted that employees were initially resistant to changes as they felt that the new changes threatened their jobs. However, upon effective communication of the need for change, employees exhibited more desire to embrace change (Ocharo, 2014). Muteti (2013) also highlighted that resistance to change among employees in the telecommunication industry resulted in delays, instabilities and increased costs of change projects. In the case of Telkom Kenya Ltd., the author noted that middle management was likely to resist changes due to the perceived loss of power or limited involvement in change processes.

2.6   Theoretical Framework

2.6.1   Change Management Theory

Change management theory is not a distinct discipline and thus it draws on several social science disciplines and traditions. While this is one of the strengths of change management theory, it also makes the task of tracing its origins and foundations difficult owing to the interwoven nature of underlying disciplines. However, both Macredie, Paul and Anketell (1998) and Burnes (2009) agree that the three school of thoughts stand out as forming the central foundations on which change management rests: the individual perspective school, the group dynamics school and the open-systems school.

a) The individual perspective school

The proponents of this school are divided into two factions known as the Gestalt-field psychologists and the Behaviourists. The behaviourist proponents believe that an individual's interaction with the environment causes a specific behaviour. Moreover, from the works of Pavlov (1927), this faction emphasise that behaviour is conditioned by expected consequences. Therefore, a rewarded behaviour is often repeated and ignored behaviour forgotten. On the

other hand, the Gestalt-field psychologists believe that behaviour is not merely the cause of external stimuli but that it arises from how a person uses their reasoning to interpret these stimuli. Accordingly, the Gestalt-field psychologists attempt to effect organizational change through promoting self-awareness while behaviourists seek to modify external stimuli acting upon a person to promote change.

b) The group dynamics school

The group dynamics theorists believe that the focus of change efforts should be on the group or team and that concentrating on individuals to bring about change is often ineffective because they tend to be pressured by the group to conform to the team's view. The group dynamics school of thought has a long history and manifests itself in modern approaches to organizational change. In his analysis of organizational change, Lewin (1958) proposes that the emphasis of organizational change should always be on group behaviour rather than individual behaviour as people in organisations work in groups. Accordingly, Lewin notes that individual behaviour should be seen, modified, and changed to align with the prevailing values, norms and attitudes of the group (Macredie, Paul & Anketell, 1998). In modern change management theory, the group dynamics approach manifests itself in the perspective that organizations view themselves as teams rather than a group of individuals.

c) The open systems school

The open systems perspective argues that the focus of organizational change should neither be on the individual or on the group but on the entire organization. Burnes (2009) notes that organizations are viewed as a collection of sub-systems which are interconnected. Therefore, the open systems perspective concerns itself with analysing how these sub-systems are interconnected to determine how to improve the overall functioning of the organisation. The idea of "open" systems implies that the sub-systems are not only interacting with each other but also with the external environment. This perspective focuses on achieving overall synergy between the sub-systems rather than optimising one of the sub-systems (Macredie, Paul & Anketell, 1998). Additionally, the proponents of the open-system approach argue that change cannot occur in one sub-system in isolation without the consideration of implications to other sub-systems (Burke, 1987). Therefore, for change to be effective the change process has to be wholesome, consultative, and concentrate on the organizational level.

2.6.2 Organizational Change Management Approaches

2.6.2.1 The planned approach to change

Previous literature has studied the planned approach to organizational change particularly focusing on the Organizational Development (OD) practice. According to Macredie, Paul & Anketell (1998), the planned approach has its most significant developments in the works of Lewin (1958) who developed both the Action research and three-step change model. The action research model is a collective planned approach to solving social and organizational problems based on the Gestalt-field and group dynamics perspectives. Burnes (2009) postulates that the basic premise of the planned approach is that solving organizational problems has to rely on a rational and systematic analysis of issues. Similarly, Lewin's (1958) three phase model relied on the assumption that understanding the critical steps of the change process will likely improve that chances of success in managing change.

2.6.2.2 The emergent approach to change

The emergent approach to change management is an alternative to the contemporary planned approach. Proponents of the emergent perspective argue that change should neither be "frozen" nor viewed as a linear sequence of events as it is in the planned approach (Macredie, Paul & Anketell, 1998). Therefore, the emergent approach views change as a continuous process (Macredie, Paul & Anketell, 1998). This approach is more in line with modern business environments that are fast-paced, dynamic, and uncertain. Therefore, realising that the planned approach was limited in the unpredictable business environment of today, proponents such as Wilson (1992) and Dawson (1994) proposed the emergent approach based on a processual perspective.

Therefore, the emergent approach focuses on the interaction between certain variables and the organization in an analytical view that is able to broaden the understanding of change management in a complex business environment. In the uncertainty of the external business environment, organizations have to develop appropriate responses which in turn force them to develop a broader understanding of the strategy, systems, people, culture, and structure, and how these factors affect the change process (Dawson, 1992; Burnes, 2009). Additionally, unlike the planned approach, the emergent perspective requires a "bottom-up" approach to planning and implementing organizational change. Consequently, the emergent approach

recognizes the need for linking action by people from all levels in the organization rather than relying on senior management to effect change.

2.6.2.3 The contingency theory approach

This theory emerged in the 1960s out of a number of now classic studies of organizational structure and management (Child, 1984; Mullins, 1989; Scott, 1987). Since the 1970s, it has proved - as a theory at least – to be more influential than either the Classical or Human Relations approach. In essence, Contingency Theory is a rejection of the 'one best way' approach previously sought by managers and propounded by academics. In its place is substituted the view that the structure and operation of an organization is dependent ('contingent') on the situational variables it faces - the main ones being the environment, technology and size (Burnes, 1989).

Contingency theorists based their approach on system theory, adopting the theory that organizations are open systems whose internal operations and effectiveness are dependent upon the particular situational variables they face at any one time and that these vary from organization to organization (Scott, 1987, p. 23). This view is consistent with evidence that not all organisations,-or even all successful ones-have the same structure, and that even within organizations, different structural forms can be observed (Mintzberg, 1979). Though many situational variables such as the age of the organization and its history, have been put forward as influential in determining the structure, it is generally agreed that the three most important contingencies are environment, technology and size.

The contingency theory is not without criticism. One of its major criticisms is that rather than managers being structural prisoners of organizational contingencies when making decisions regarding the structure, the reverse may be the case. Managers may have a significant degree of choice and influence over not only structure but also the situational variables. Whether this is called 'strategic choice', organizational choice or design space the meaning is the same: those senior managers responsible for such decisions can exercise a high degree of freedom in selecting and influencing the technology to be used, the environments in which they operate and even the size of the organization. Indeed one of the architects of the technology-structure hypothesis Perrow (1983) later claimed that technology is chosen and designed to maintain and reinforce existing structures and power relations within organizations rather than the reverse.

Other scholars made the case for size and environment being manipulated in similar ways (Hendry, 1979; Leifer & Huber, 1977; Lorsch, 1970). Another criticism is that contingency theory is too mechanistic and deterministic, and ignores the complexity of organizational life. As argued by the human relations school, organizations are by no means the rational entities many would like to believe (Thompsons, 1967).There is a need to see organizations as social systems with all the cultural and political issues that this raises. In this view, a structure is the product of power struggles between individuals and groups within the organization, each arguing and fighting for their own perspective and position. (Allaire & Firsirotu, 1984; Buchanan, 1984; Hickson & Butler, 1982). However, despite some weaknesses, the theory's emphasis on the analysis of contingencies in times of crisis is highly applicable to dynamic environments such as the telecommunication industry.

2.6.2 Models of change management

a) Kotter's Eight-Stage Model

Kotter's eight-step process for organizational change is one of the most popular models in change management. According to Kotter (1996), a change management and leadership expert, developed this model to address eight main reasons for an unsuccessful organizational change. Therefore, unlike Lewin's model, Kotter focuses more on "leading change" rather than managing change (Calder, 2013). Accordingly, Kotter (2007) presents the following eight steps to leading successful change:

i. Creating a sense of urgency by making people realise that change is necessary and it is needed now;
ii. Creating the directional team (powerful coalition) with the ability to lead the change initiative;
iii. Making a change vision which is clear and simple, and part of the organisation strategy;
iv. Communicating the vision clearly and frequently to both management and employees;
v. Abolishing all obstacles that would interfere with the change, change systems or change agents. There should be strong emphasize in addressing resistance to change;
vi. Induce short-term wins to motivate individuals to work forward towards the change efforts;
vii. Building on the change by implementing mechanisms to sustain the change and
viii. Making the change stick through organizational cultural change.

Kotter's model of change supports the emergent approach to change. According to Burnes (2009), the developed model views change as being driven bottom-up in the organization and stresses that the change process should be a continuous open-ended process of adapting to changing circumstances and conditions. Therefore, Kotter suggested the above sequences of actions that organizations can adopt with the view that the ability of an organization to learn and adapt to fast-paced dynamic changing environments is the key to success or failure of the change management project. Importantly, Kotter recognized that most changes that occur in organizations are small to medium change projects. Therefore, from the emergent approach Kotter emphasized the need to align and realign the management decision through adapting internal practices and behaviours that meet changing external behaviour (Burnes, 2009).

Nevertheless, the model is not devoid of critics of the organizational change management discipline. Critics have noted the rigidity of the step-by-step processes of the model (D'Ortenzio, 2012). Simply skipping a step in the model might result in failure of the organization in completing the change initiative. Getting into the latter stages of the model without the proper reinforcement of the early stages almost always results in problems (D'Ortenzio, 2012). For instance, during the latter stages, the sense of urgency created in the first step may dissipate or the guiding coalition may break up in later stages. Moreover, critics note that the model focuses on the change itself rather than acceptance and preparedness for the change effort (D'Ortenzio, 2012).

Other scholars have also criticised the lack of evidence that validates the eight steps beside Kotter's work (Appelbaum et al., 2012). Nevertheless, the biggest challenge has been the limitations for application of the model. Unlike Lewin's model, this model is more suited to leading change efforts rather than managing the change initiative. Accordingly, it is limited in small changes in divisions where the support of upper management is lacking. Fortunately, the model is highly effective in helping organizations cope with new and more challenging market environments and can be easily adapted to meet the change needs of different organizations (Blomqvist, 2017).

b) Lewin's change management model

Kurt Lewin developed the three-step model of change management based on the observation that the status quo is a consequence of driving forces and restraining forces (Burnes, 2009). Driving forces favour the change that they are motivating and pushing for whereas restraining

forces oppose the change. Based on this force-field analysis, Lewin (1958) developed a three-step model for organizational change. The first step is unfreezing the current situation. Given that the present situation shows a state of equilibrium, it becomes necessary to unfreeze the status quo to overcome the resistance to change. Lewin (1958) argued that these equilibrium needed to be destabilised before old behaviour could be discarded and new behaviour successfully adopted (Burnes, 2009). Unfreezing can occur either by increasing the driving forces, decreasing the restraining forces or a combination of both.

The second step involves moving through planned intervention. According to Schein (1996), unfreezing is not an end in itself and only creates the motivation to change. Therefore, an organization needs to change behaviour or outcomes through planned change. According to Lewin (1958), moving is an iterative process where the organization or manager identifies, evaluates and implements several options until the optimum route to change is gained. Moreover, without reinforcement change could be short-lived and the organization can regress to the unwanted behaviour. To ensure that the changes that have occurred remain permanent, the final stage is refreezing the new situation. As Breitler (2003) notes, it is crucial for an organization to refreeze the situation once the change has been implemented to prevent employees from reverting back to their former and comfortable behaviour. Moreover, without refreezing, the learned behaviour will not become congruent with existing behaviours, personalities and environment thus resulting in a new disconfirmation (Schein, 1996).

Unfortunately, Lewin's model has become less unfashionable from the 1980s due to other newer models of change coming into the picture. Critiques argue that since Lewin's model was developed in the mid-twentieth-century, its applicability in present-day change management is limited. Moreover, scholars have criticised Lewin's assumption that organizations operate in stable environments, his ignorance of politics and power play in an organization and the top-down view of change (Burnes, 2004). Nevertheless, Burnes (2009) notes that the model is still relevant today as it forms the foundation to most change models in the modern era. Additionally, Calder (2013) also lauds the simplicity of the Lewin's three-step model which makes it flexible and easy to implement. Moreover, its focus on reducing resistance to change is a good starting point for many organizations that struggle with opposition to change. Therefore, despites its weaknesses Lewin's model has its use in managing change.

2.7 Summary of literature review

This literature review has provided an overview of the concept of change management, change management theory and empirical review of change management. The literature has highlighted the main challenges of change management in the telecommunication sector which emphasis the problem of ineffective leadership and resistance to change. The literature on the success factors that influence change has identified a correlation between leadership style, technology adoption, and processes/procedures and change management.

The theoretical framework that provides the foundation for the present research is the change management theory particularly using the emergent approach to change. Literature has shown that the emergent approach offers a wholesome view of change and recognizes that change is complex and can occur unplanned. Kotter's eight-step model best envisions the emergent approach to change management. The acknowledgement by Kotter that organizations survival depends on the ability to learn closely relates to the telecommunication industry. Kotter's models adopt a leading change approach which would be most suitable in an industry synonymous with innovativeness and high customer expectations (Calder, 2013). Accordingly, the present research will rely on this theoretical approach in the analysis and discussion and recommendation sections.

2.8   Conceptual Framework

Figure 2.2: Conceptual Frame Work
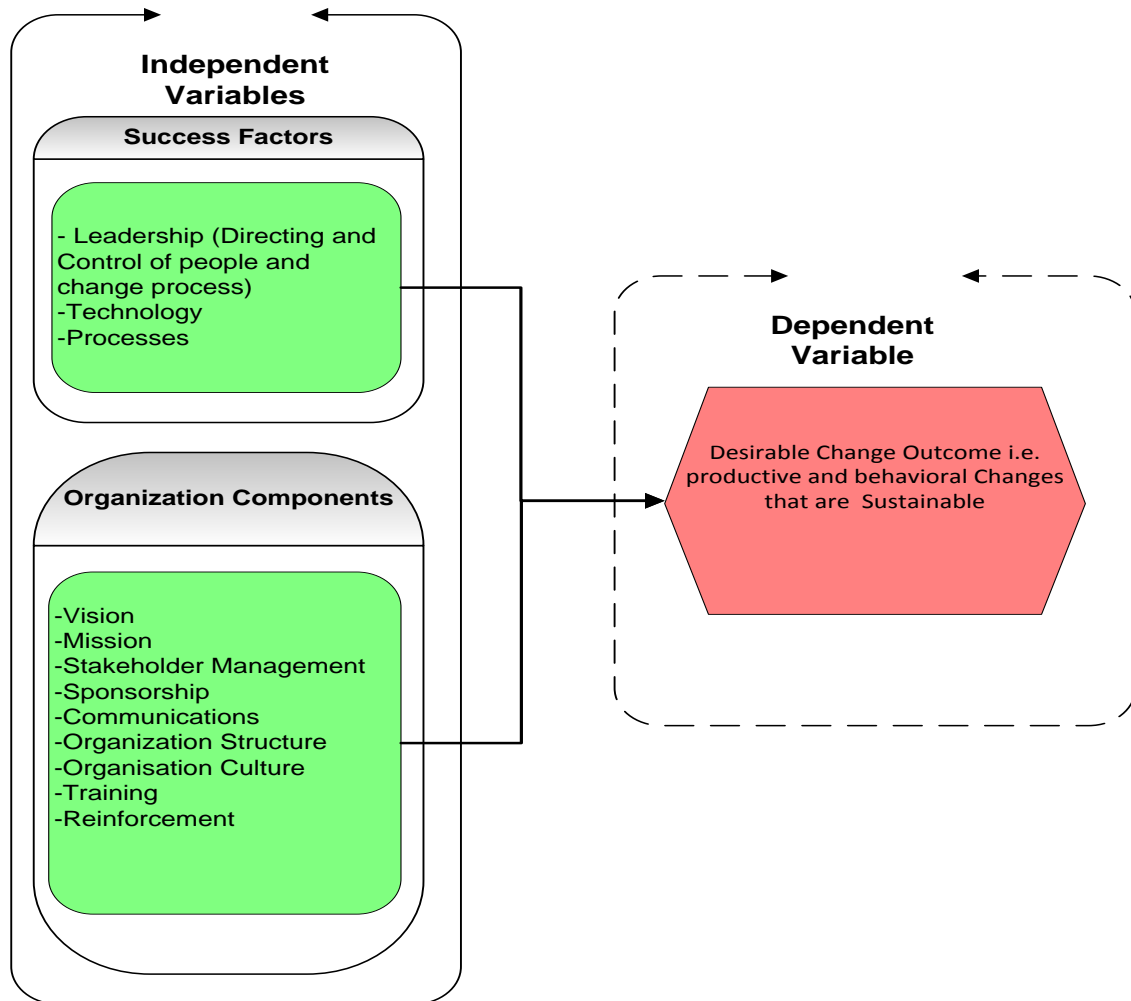
Source: Literature review 2015

As shown from the literature review, the model for the sustainable change management is built around change management theory. Any process of change is viewed as constituting success factors and the organizational components that bring desirable change outcome. Therefore, change management considers these two aspects to ensure sustainable change management. Leadership, people, processes and technology; vision, mission, sponsorship, training, reinforcement and training influence sustainable change outcome. Therefore, sustainable change management is viewed as a function of these factors for success.

CHAPTER THREE

RESEARCH METHODOLODY

3.1   Introduction

This section provides a description of the procedures that have been used in conducting this study. The techniques in getting the data have been well explained. The instruments of data collection, the procedures and analysis are discussed. This chapter outlines the method used in the study.

3.2 Area of study

This study investigates sustainable change management as a case study of contractors in the Telecommunications industry in Kenya. Most of the local contractor firms in the Telecommunication industry are based in Nairobi. This is for ease of business due to the proximity to the clients as they are based in Nairobi.

3.3 Research strategy and design

A research design refers to the general strategy for solving problem. This strategy provides among others; the general framework for the procedure that a researcher will follow the data to be collected and analyzed that will be suitable for data collected (Leedy/Ormrod, 2005). There are varied ways of classifying research but two broad types are qualitative and quantitative research.

Qualitative research ensures that there is an in-depth understanding of a subject, it comprises of design, techniques and measures that do not produce continuous numerical data. The findings from qualitative research are generally subjective and its conclusion based on interpretations. In some cases, the qualitative method precedes the quantitative approach and in this way the qualitative method provides understanding of the quantitative findings.

A quantitative research includes design, techniques and measures those results in discreet numerical or quantifiable data. Further, quantitative research has three broad categories, whose classification is by purpose, methods of analysis or by type of research (Mugenda and Mugenda, 2003).The study shall adopt the use of both qualitative and quantitative methods in the sense that though the study seeks to establish success factors and organizational components that influence change which are not numerical data. These findings will be

converted into ratios or percentage using the likert scale .This is a scale that uses statements in a questionnaire and is judged by the respondents using interval scale of measurement.

The data collected in this study qualitative in nature but would be analyzed in a way to provide numerical data. Therefore, we shall combine both the qualitative as well as quantitative aspects of both research designs.

3.4 Study methodology

3.4.1 Target population

For the purpose of this study, the target population shall be all local contractors in Nairobi that have been registered by the National Construction Authority (NCA) in categories 1 to 8 and are also prequalified by the Telkom operators in Kenya for the construction of their telecommunication infrastructure in the areas of civil works, electrical works and telecommunication. The choice of the target population is out of convenience so as to meet the objectives of the study.

3.4.2 Sample size and sampling procedures

The accessible population from which the sample is drawn focuses on the representative portion of the target population. Due to the limited time and resources, this study was restricted to the representative portion of the target population. Such limitation has been occasioned considering this is an academic work that need to be completed over a given time period. In suggesting the appropriate sample size, Mugenda quotes Gay (1981), as suggesting the for correlation research, 30 cases or more are required. It was therefore decided that a minimum of 30 respondents from local contractors would be used and in order to ensure that this threshold was achieved, a *'rule of thumb'* factor of 1.5 was applied to arrive at a final sample size of 45. Therefore, the choice of the sample was 48 respondents, from prequalified local contractors by the telecom operators in the Kenyan industry. Systematic random sampling was used in order to select the individuals to be included in the study. This was meant to ensure quality and simplicity in the study.

3.5 Research instruments

The researcher used questionnaires to collect the primary data. Questionnaires have the advantage of narrowing down the respondent to only give the answers that are required by the

researcher (Bryman, 2008). In addition, questionnaires are preferred because respondents of the study are assumed to be literate and able to respond to questions adequately. Kothari (2004) terms the questionnaire as the most appropriate instrument due to its ability to collect a large amount of information in a reasonably quick span of time. The study adopted both open and closed ended questions. Open ended questions allowed the respondents room to explain and elaborate on the response given.

3.6   Data collection

The data was collected using the already prepared questionnaire from the contractors selected from the sample frame. Based on the design of the research, four research assistants who have knowledge in the area of construction management based on their educational background were used for the data collection. The assistants were well briefed on the purpose of the study and the theoretical background to enable them assist the respondent in filling up the questionnaire.

The respondents were alerted in advance prior to the visit by way of telephone call and in most instances the questionnaire was emailed in advance.

3.7   Data analysis

The objectives of the study restated here below provided a steady guide for the data analysis

    i)   To evaluate the success factors that influence change,

    ii)   To evaluate the organization components that influence change, and recommend the leadership style and organization structure that will lead to sustainability of the change process

The data obtained from the field was the then analyzed using the SPSS (Statistical package for social sciences for windows version 23) software. This package provides an easier way of data analysis Vis a Vis manual analysis of the data.

The data obtained from the output of the SPSS package were coded by arranging in a table format with the rows of the questions against the columns containing the scores of the respondents. The scores were assigned values 6 to 1 with 6 representing very high degree and 1 being no response. The scores for each question were summed up and weighted to enable comparison between the various questions.

Descriptive analyses of the data and representation was done using bar charts and frequency tables while hypothesis testing was done at 95 % level of significance.

3.7.1 Validity of the research instruments

Validity shows whether the instrument measure what they are designed to measure (Borg and Gall 1989). The researcher used content validity to examine whether the instruments would answer the research questions (Borg & Gall, 1996). Adjustments and additions to the research instruments, consultations and discussions with the supervisor were done to establish content validity. Further, this was enhanced by making the questionnaires to be as simple as possible and avoid any kind of ambiguities. The validity of the study has been enhanced further by using systematic random sample, to choose the respondents in the study and so avoid bias.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1   Introduction

In this chapter the results of the data analysis are presented, the data collection process was influenced by the objectives posed in chapter 1 which were; to evaluate the success factors of change management and to evaluate the organization components that influence change.

Table 4.1: Response Rate

Table 4.1:Response Rate

Sample Size	Responses	% Responses
48	34	71%

Source: Field Survey, 2018

In any research, stating the response rate of respondents is important as it reflects the in depth of the data collected. (Mugenda, 2003) argues that a return rate of 50% and above is satisfactory for data analysis. From a total of 48 questionnaires issued by the researcher, 34 of them were returned implying a return rate of 71%, this return rate was deemed adequate for the study and it did set a good base that is satisfactory for analysis.

4.2   General characteristics of respondents

This part sought to capture the general information of the respondents, the respondents were asked to directly state their domain in the Mobile Telecommunications industry, their specific role in the Mobile Telecommunications Industry, their years of service in the Mobile Telecommunications Industry, if their firm is registered by the NCA and if they have ever heard of change management. The aim was to ensure that the respondents had the minimum requirements in organizational capacity and qualifications and ensure the reliability of the information collected.

4.2.1 Respondents Domain in the Mobile Telecommunications Industry

Table 4.2:Domain Frequencies

Domain	Frequency	Percent	Cumulative Percent
Mobile Operator	0	0	0
Consultant	1	3	3
Contractor	34	97	100
Total	35	100	

Source: Field Survey, 2018

The telecommunication industry has three dominant players in the construction of the infrastructure namely; mobile operator, contractor and consultants. Due to diversified nature of the contracts the players sometimes forms partnership or perform as individual companies. From the data analysis, all the respondents were contractors although one of the respondents indicated they were both contractors and consultants.

4.2.2 Years of Service in Mobile Telecommunications Industry

Table 4.3: Years of service in the Mobile Telecommunications Industry

Years of Service in the Telecommunication Industry	Frequency	Percent	Cumulative Percent
0-5 years	24	72	72
5-10 Years	7	20	92
Above 10 Years	3	8	100
Total	34	100	

Source: Field Survey, 2018

From the data above, majority of the respondents, 72% indicated that the respective years of service in the telecommunication industry was between 0 and 5 years, 20% had more than 5 years but less than 10 years while the remaining 8% had more than 10 years of service in the telecommunication industry. According to Kotter (2007) step no 7, organizations should

implement mechanisms to assist them building on change initiatives in order to ensure sustainability. The high turnover of employees in local companied means that they loose on the training of skills already imparted and the resources spent in training will also be incurred frequently making it very costly to keep retraining the staff.

4.2.3 Firm Registered With NCA

Table 4.3:Respondent response on if their firm is registered with NCA

Registration with NCA	Frequency	Percent	Cumulative Percent
Yes	32	94	94
No	0	0	94
No Response	2	6	100
Total	34	1-00	

Source: Field Survey, 2018

This shows that the companies involved were competent and met the minimum threshold as required by the Kenyan Construction industry to be involved in the civil works It also shows that the companies had the required capacity in terms of equipment and personnel and the experience as its part of the requirements to be registered as a contractor with NCA

4.2.4 Functional Divisions Existing In Organization

Table 4.5:Response Rate on Functional Divisions in Organization

Functional Divisions	Responses		Percent of Cases
	N	Percent	
Engineering	33	18.1%	97.1%
Project Management	28	15.4%	82.4%
Finance	20	11.0%	58.8%
Health and Safety	29	15.9%	85.3%
Project Planning	25	13.7%	73.5%
Logistics/Supply Chain	26	14.3%	76.5%
Quality Managament	21	11.5%	61.8%
Total	182	100.0%	535.3%

Source: Field Survey 2018

Table 6:Functional Divisions Frequencies Statistics

N	Valid	34
	Missing	0
Mean		2.06
Median		2.00
Std. Deviation		1.03
Variance		1.37
Skewness		-1.04
Std. Error of Skewness		.211
Kurtosis		1.043
Std. Error of Kurtosis		.788

Source: Field Survey, 2018

The mean value for the functional divisions in the organization is 2.06 and the median is 2.00 with skewness -1.04 and kurtosis 1.043 (Table 4.5). The data is fairly normally distributed and this is an indication that the contractors have a fairly departmentalized their firms with the various divisions being represented.

The respondents were asked to state the different functional divisions that exist in their organizations, from the data it is clear that the contractors have fairly departmentalized their firms with the various divisions being represented. The local contractors have therefore structured the organizations in cognizance of the multi displinary nature of the skills required in the telecommunications structure. The clients closely monitor the operations of the contractors in areas of engineering, health and safety and project management as this would greatly impact their performance of the network and their reputation in case of any incidences on site that would lead to fatalities . There is a clear bias towards divisions that are statutory as per the requirements by the client such as engineering, HSE and project management. Divisions such as project planning, quality management, finance and administration which might have a long term impact on the sustainability of the company having less emphasis.

4.3   Success Factors for Change Management Sustainability

4.3.1   Leadership Style

Table 4.7: Leadership Style of Your Immediate Supervisor Statistics

N	Valid	34
	Missing	0
Mean		2.26
Median		2.00
Std. Deviation		1.463
Variance		2.140
Skewness		1.669
Std. Error of Skewness		.403
Kurtosis		2.067
Std. Error of Kurtosis		.788

Source: Field Survey (2018)

Table 4.8:Best description of the immediate supervisor

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Organizes, coordinates, controls and directs (task-oriented)	10	29.4	29.4	29.4
	Indicates step-bystep what employee should do and keep close supervision of performance	17	50.0	50.0	79.4
	Collaborative	2	5.9	5.9	85.3
	Participative	1	2.9	2.9	88.2
	Consultative	1	2.9	2.9	91.2
	Combination of one of the above	3	8.8	8.8	100.0
	Total	34	100.0	100.0	

Source: Field Survey, 2018

Figure 4.1: Leadership Style

Histogram

Mean = 2.26
Std. Dev. = 1.463
N = 34
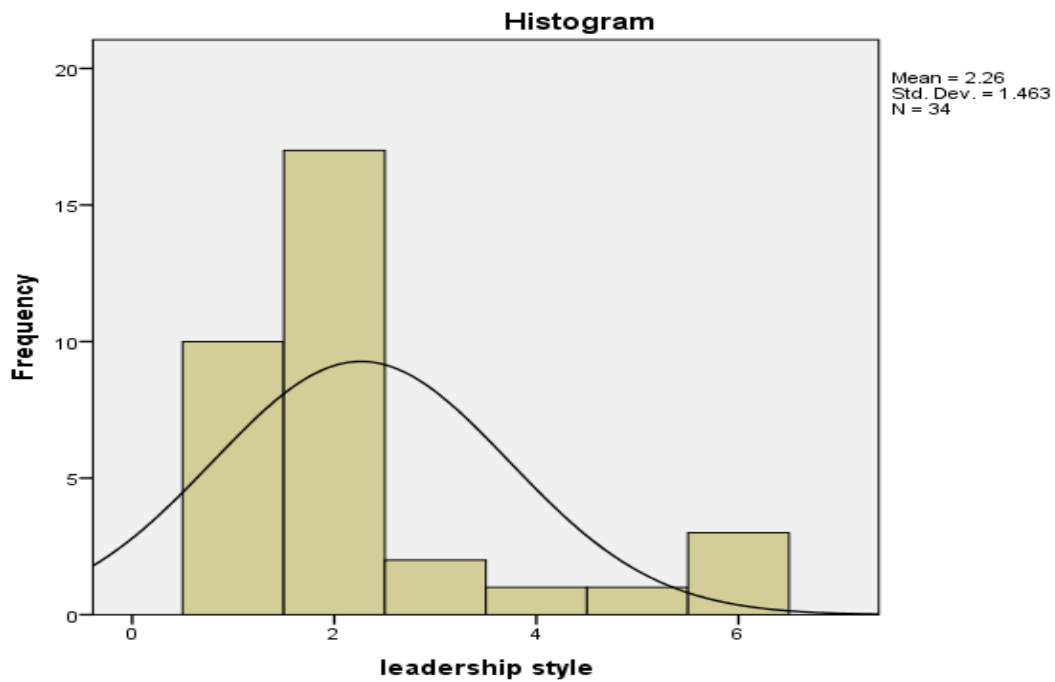
Source: Field Survey, 2018

From table 4.5 above, it can be seen that the mean is 2.015 and the median is 2 and is skewed by 1.025 with a kurtosis value of 1.923. The graphical representation of the distribution is fairly bell shaped, almost synonymous to the normal curve. From the mean value, the level of leadership style is moderate and this is seen from the very minimal level of skewness.

The management of the organizations is keen to be in control of the subordinate's staff and playing to the rules of the organization. There is also the tendency of the management, being in control of the subordinate staff and assisting in achieving their goals which was the responded by 50% of the respondents. Leadership practices that emulate flexibility of the management towards subordinates while performing their duties only scored a paltry 12%.

4.3.2 Technology adoption

Table 4.9:Technology Adoption

		Use of CAD software in site designs	Use of survey equipment such as GPS, dumpy level	Use of heavy machinery in excavation works	Use of concrete mixers	Precast concrete elements in boundary walls	Use of derricks and cranes in rigging works	Use of site master and cell alignment tools
N	Valid	34	34	34	34	33	34	34
	Missing	0	0	0	0	1	0	0
Mean		4.91	4.88	2.38	4.79	1.52	4.68	4.91
Median		5.00	5.00	2.00	5.00	1.00	5.00	5.00
Mode		5	5	2	5	1	5	5
Std. Deviation		.288	.327	1.101	.592	1.202	.912	.288
Variance		.083	.107	1.213	.350	1.445	.832	.083
Skewness		-3.039	-2.484	1.041	-2.728	2.432	-2.599	-3.039
Std. Error of Skewness		.403	.403	.403	.403	.409	.403	.403
Kurtosis		0.686	1.430	.934	2.050	1.809	2.232	1.686
Std. Error of Kurtosis		.788	.788	.788	.788	.798	.788	.788

Source: Field Survey, 2018

The local contractors in the telecommunication industry have adopted the least complex technology in the construction of the infrastructure such as the use of concrete mixers while not utilizing available and more recent technology such as use of precast concrete panels. The adoption of technology also seems to be out of necessity such as use of CAD software, survey equipment and site configuration tools since it's a requirement by the client the contractor to present information in a certain format and also from approving government authorities. Youssef, Hadhri & M'Henni ,2014 noted that organizations in developing countries are more reactive than proactive. Local contractors have therefore adopted a reactive approach in implementation of technology and only for survival. The lack of skills in the industry as indicated by NCA, 2014 report might also hinder adoption of technology considered as complex such as precast concrete elements. The inability of the management to discern the right technology that would lead to efficiency and increased productivity might be a pointer to inept leadership (Youssef, Hadhri & M'Henni ,2014).

4.3.3   Processes, Rules and Procedures

Table 4.10:Processes, rules and procedures

		Engineering design	Project Planning	Health, safety and environment	Logistics and supply chain Mgt	Quality Mgt	Project Mgt	Finance and admin
N	Valid	34	34	34	33	34	34	32
	Missing	0	0	0	1	0	0	2
Mean		4.94	2.65	3.85	2.79	2.68	2.88	2.03
Median		5.00	3.00	4.00	2.00	3.00	3.00	2.00
Mode		5	3	4	2	3	2	2
Std. Deviation		.239	1.098	.958	1.386	1.121	1.149	1.062
Variance		.057	1.205	.917	1.922	1.256	1.319	1.128
Skewness		-3.925	.185	-.570	.180	-.129	.243	1.141
Std. Error of Skewness		.403	.403	.403	.409	.403	.403	.414
Kurtosis		2.244	-.277	-.445	-1.359	-.820	-.833	.927
Std. Error of Kurtosis		.788	.788	.788	.798	.788	.788	.809

Source: Field Survey, 2018

For a normal distribution curve, the mean and median should almost be equal and the skewness is less 1 while Kurtosis is less or equal to 3 or 0 (Bryman, 2008). The results meet the criteria of a normal distribution. Local contractors' use of formal processes, procedures and control systems is moderate. In a dynamic and ever changing environment like the telecommunication industry formal procedures and control systems can be used in monitoring outcomes and for management to rate their success on the change initiative (Ford and Greer ,2005) . Local contractors require more implementation of the control systems in order to increase the likelihood of success and for measurement of progress. Kotter (2007) indicated the importance of inducing short term wins to motivate individuals to work towards the change effort. Local contractors therefore require control systems in order to determine the milestones to be achieved in the change effort and act as motivation to employees.

4.4. Organizational Components and Change Management

4.4.1 Vision and Mission

Table 4.11:Vision and Mission Frequencies

		Does the top management share the vision of the company with everyone within the company	Is mission derived by everyone within the company
N	Valid	34	34
	Missing	0	0
Mean		1.79	1.88
Median		2.00	2.00
Std. Deviation		.410	.327
Variance		.168	.107
Skewness		-1.523	-2.484
Std. Error of Skewness		.403	.403
Kurtosis		5.335	4.430
Std. Error of Kurtosis		.788	.788

Source: Field Survey, 2018

Table 4.12:Top management sharing vision with employees

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	7	20.6	20.6	20.6
	On new basis	27	79.4	79.4	100.0
	Total	34	100.0	100.0	

Source: Field Survey, 2018

Table 4.13:Is mission derived by everyone within the company?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	4	11.8	11.8	11.8
	On new basis	30	88.2	88.2	100.0
	Total	34	100.0	100.0	

Source: Field Survey, 2018

Table 4.13:Are there different images or ideas about the mission of the organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Heterogeneous	23	67.6	67.6	67.6
	Homogeneous	10	29.4	29.4	97.1
	Leadership profile	1	2.9	2.9	100.0
	Total	34	100.0	100.0	

Source: Field Survey, 2018

Figure 4.2: Vision Histogram
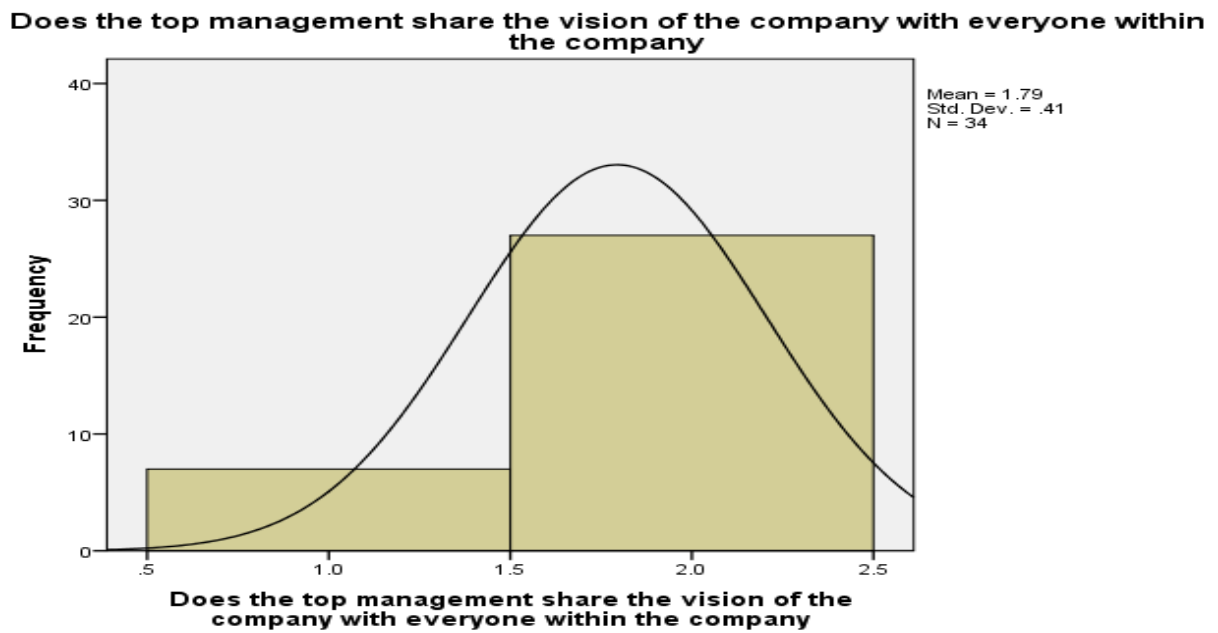
Source: Field Survey, 2018

Figure 4.3: Mission Histogram

Is mission derived by everyone within the company
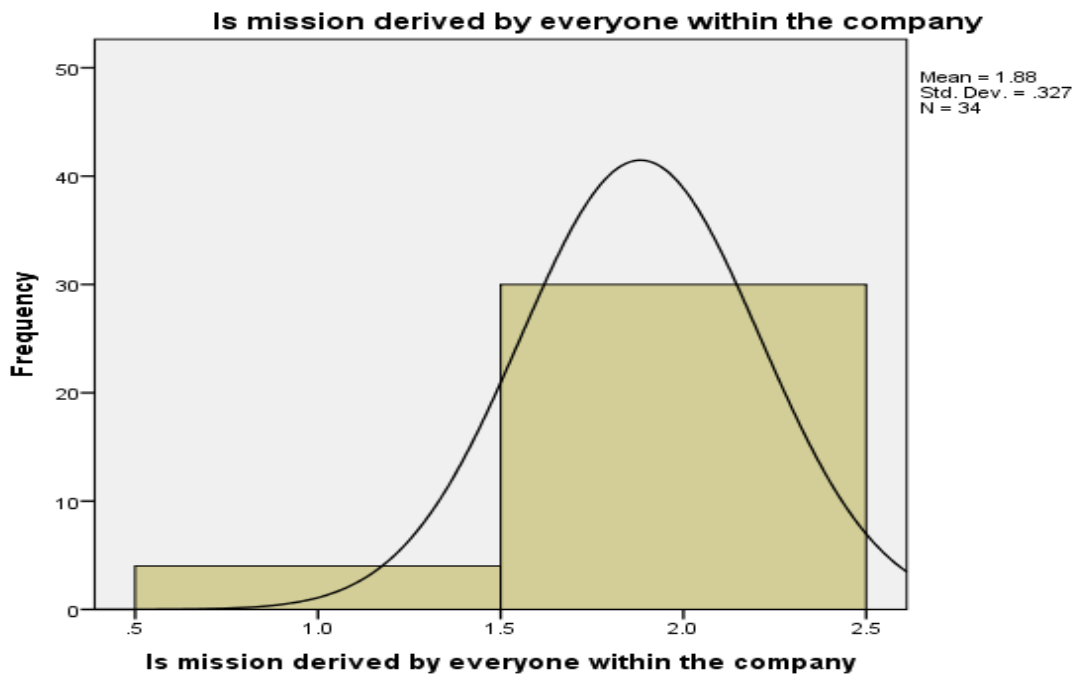
Source: Field Survey, 2018

The mission statistical values: mean (1.8) and the median (2.0) and skewed by -2.84. Further, the vision statistical values: mean (1.79), median (2.0) and skewed by (-1.523). The graphical representation is fairly bell shaped for both the vision and the mission statement in the organizations. From the mean values, it is clear that there is minimal effort from the management to inform the employees on the mission and vision for the organization. Kotter (2007) emphasized the need of broadcasting the vision clearly and frequently to both management and employees. The challenge faced by local contractors in top management bridging the gap with the employees to ensure they achieve the goals of the company may hinder successful change. The need for involving employees is critical in order to achieve the bottom-up approach in organizational change as modeled by Kotter. The vision should be clear and simple and part of organization strategy and this would assist the local contractors in having a homogenous view of the vision and mission (Kotter, 2007) . A homogenous view creates synergy amongst employees in working towards the vision and mission.

4.4.2 Stakeholder Involvement in mission statement

Table 4.14: Stakeholder Involvement in Mission Statement

		Board of directors	CEO / Managing director	Executive team / senior managers	Non-executive managers / supervisors	Non-Managerial level employees
N	Valid	34	34	34	34	34
	Missing	0	0	0	0	0
Mean		1.68	3.00	3.76	2.85	1.82
Median		1.00	3.00	4.00	3.00	2.00
Std. Deviation		1.342	1.015	.654	1.234	.834
Variance		1.801	1.030	.428	1.523	.695
Skewness		1.756	.554	.277	-.321	1.685
Std. Error of Skewness		.403	.403	.403	.403	.403
Kurtosis		1.591	-.074	-.617	-1.265	5.213
Std. Error of Kurtosis		.788	.788	.788	.788	.788

Source: Field Survey, 2018

From the findings, there is high involvement of the executive team /senior managers, followed by the CEO/Managing director, then the non-executive managers / supervisors then the non-managerial level employees and board of directors that are involved at a small extent in establishing the vision and mission in the organizations. Perhaps, all employees at different levels need to be involved in establishing the mission and vision in the organizations since this is essential for sustainable change management. According to Kotter, 2007 a powerful the coalition leading the change initiative would increase the likelihood of success in the outcome. The most powerful coalition in an organization is the board of directors followed by the CEO. Local contractors have relegated the role of leading the organization which is in transition to less powerful coalitions. This greatly affects the outcome of the change process.

4.4.3 Mode of Communication

Table 4.15:Mode of Communication

		department meetings	all employee meetings	training sessions	memos	posters	video/ phone conferencing	emails	web based
N	Valid	34	34	34	34	33	34	34	34
	Missing	0	0	0	0	1	0	0	0
Mean		3.53	2.91	2.71	2.26	2.52	1.59	4.47	2.38
Median		3.00	3.00	3.00	1.50	2.00	1.00	5.00	2.00
Mode		3	3	2	1	1	1	5	1
Std. Deviation		1.107	.965	.970	1.601	1.439	.957	.706	1.349
Variance		1.226	.931	.941	2.564	2.070	.916	.499	1.819
Skewness		.063	.185	.644	.574	.604	1.165	-.986	.659
Std. Error of Skewness		.403	.403	.403	.403	.409	.403	.403	.403
Kurtosis		-.741	.033	.282	-.917	-.772	1.752	-.263	-.846
Std. Error of Kurtosis		.788	.788	.788	.788	.798	.788	.788	.788

Source: Field Survey, 2018

The contractors' statistical values are: departmental meetings (mean is 3.53 and median is 3.0) all employee meetings (mean is 2.91 and median is 3.0); training sessions (mean is 2.52 and median is 3); memos (mean is 2.26 and median is 1.50); posters (mean is 3.3 and median is 2.0); videos and phone conferences (mean is 1.59 and median is 1.0); email (mean is 4.47 and median is 5.0) and web based (mean is 2.38 and median is 2.0). From the results, emails are used to a wider extent followed by all departmental meetings, then all employee meetings, then the training sessions, then the posters , the web based, memos and finally video / phone conferencing in that order. The local contractors in the telecommunication industry have adopted higher levels of external communication such as emails than internal communication such as meetings and training. Internal communication channels are importants for creating awareness and urgency (Kotter,2007). Local contractors need to enhance and utilize all communication channels available. Ocharo (2014) found effective communication to be extremely useful in his study on change management in the telecommunication industry.

4.4.4 Organization Values

Table 4.16:Employees perspective of the Organizations Values while executing their duties

		Values rules fulfilment	Values goals achievement	Values sincerity and participation	Values collaboration in goals achievement	Values contribution of creative ideas	Values the initiative in finding new solutions
N	Valid	34	34	34	34	34	34
	Missing	0	0	0	0	0	0
Mean		4.18	3.56	2.53	2.68	2.88	3.32
Median		4.00	4.00	2.00	3.00	3.00	3.00
Mode		5	4	2	3	3	3
Std. Deviation		.797	.960	.961	.843	1.038	1.121
Variance		.635	.921	.923	.710	1.077	1.256
Skewness		-.336	-.068	.674	-.274	.075	-.420
Std. Error of Skewness		.403	.403	.403	.403	.403	.403
Kurtosis		-1.328	-.852	.066	-.317	-.337	-.104
Std. Error of Kurtosis		.788	.788	.788	.788	.788	.788
Minimum		3	2	1	1	1	1
Maximum		5	5	5	4	5	5

Source: Field Survey, 2018

The mean values of the employee perspective of the organizational values while executing their duties indicate that employees value the rules, the goals achievement, value initiative in finding solutions, value contribution in creative ideas, value collaboration in goals achievement then the value sincerity and participation in that order of importance on organizational values in executing their duties. The local contractors have a bureaucratic leadership style in which the lower cadre employees whether at the site or office have to follow instructions from the supervisors. The way local contractors organize their work is instruction flow from office to the different teams in the site with one manager managing several teams and therefore following of rules is greatly valued as a means of control. Local contractors' culture can therefore be described as a role culture vis a viz a task culture.

4.4.5 Organizing Work

The study asked the respondents to state the levels of hierarchy present in their organizations, majority of the respondents, 56% said there existed many levels of hierarchy in their organizations while a minority 44% said there on existed few levels, the study established that most of the organizations are able to manage their employees efficiently since one manager is in control of few employees.

Table 4.17:Levels of Hierarchy Present In the Organization

N	Valid	34
	Missing	0
Mean		1.44
Median		1.00
Std. Deviation		.504
Variance		.254
Skewness		.248
Std. Error of Skewness		.403
Kurtosis		-2.064
Std. Error of Kurtosis		.788

Source: Field Survey, 2018

Table 4.18:Levels of hierarchy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Many (Hierarchical)	19	55.9	55.9	55.9
	Few (Flat)	15	44.1	44.1	100.0
	Total	34	100.0	100.0	

Source: Field Survey, 2018

Figure 4.4: Levels of Hierarchy Present In the Organization
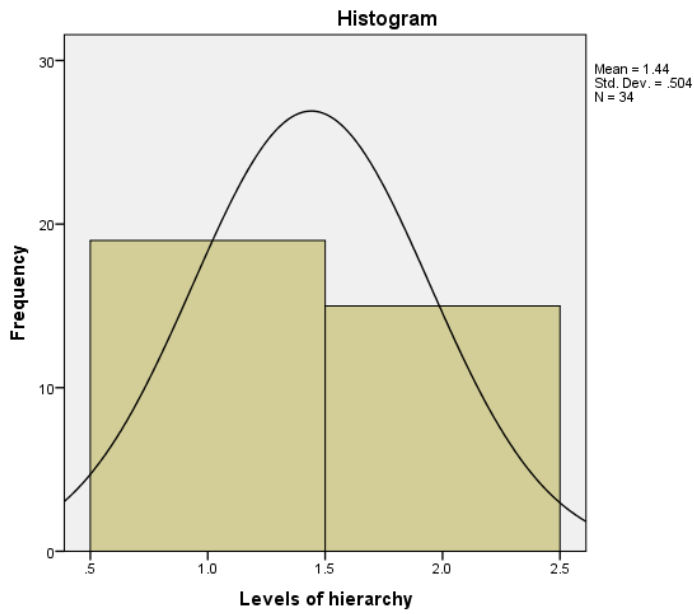
Source: Field Survey, 2018

Table 4.19:Ways of Organizing Work

		Critical circles / groups	Delegation of responsibility	Planned job rotation	As per resource availability	Integration of functions	Specialization
N	Valid	34	34	34	33	34	34
	Missing	0	0	0	1	0	0
Mean		1.27	4.15	1.94	3.89	3.06	3.02
Median		1.20	4.00	180	3.60	3.00	3.00
Mode		4	5	1	4	4	4
Std. Deviation		.662	.781	1.189	.637	1.232	1.352
Variance		.439	.610	1.413	.405	1.519	1.625
Skewness		-.219	-.449	1.125	-.023	-1.586	-2.102
Std. Error of Skewness		.403	.403	.403	.409	.403	.328
Kurtosis		-.114	-1.194	.775	-.331	3.460	2.132
Std. Error of Kurtosis		.788	.788	.788	.798	.788	.102

Source: Field Survey, 2018

The study also sought to establish ways in which organizations organize work, from the data below the study discovered that, delegation of duties based on the assigned responsibilities is the most common way of organizing work with a mean of 4.15. This might be collaborated with the response indicating the contractors have also departmentalized their organizations but not all the departments are fully operationalized by following the processes. The tall structures in which the organisations have structured their operations requires the information flows from top to bottom along the hierachy. This is due to the layered nature of the organisations with the instructions being issued by managers based in central office to different operational units in the sites.The employees have closely defined duties , responsibilities and methodology of carrying out works. The local contractors have a mechanic type of organisation structure.

4.4.6 Training Programs

Table 4.20:Reason for Training Programs

		Goal achievement training	New technology, innovation and change training	Leadership / human resource management training	Technical and professional training	Company rule, procedure and process training
N	Valid	34	34	34	33	34
	Missing	0	0	0	1	0
Mean		3.47	4.24	1.74	4.03	3.76
Median		3.50	4.00	1.00	4.00	4.00
Mode		4	5	1	4	4
Std. Deviation		.662	.781	1.189	.637	1.232
Variance		.439	.610	1.413	.405	1.519
Skewness		-.219	-.449	1.125	-.023	-1.586
Std. Error of Skewness		.403	.403	.403	.409	.403
Kurtosis		-.114	-1.194	.775	-.331	3.460
Std. Error of Kurtosis		.788	.788	.788	.798	.788

Source: Field Survey, 2018

The contractor's statistical values are: goal achievement training (mean is 3.47 and median is 3.50); new technology, innovation an change training (mean is 4.24 and median is 4.0);

leadership / human resource management training (mean is 1.74 and median is 1.0); technical and professional training (mean is 4.03 and median is 4.00) and company rules, procedures and process training (mean is 3.76 and median is 4.0). From the mean values the training programs , considered by the telecommunication contractors are mainly in areas new technology , innovation and change training and offer technical and professional training. This may be due to the enviroment in which the firms operate as there is always new technology being introduced . Training in company rules , procedures and process training, goal achievement and leadership have less emphasis. Local contractors should consider training in leadership and goal achievemenat as critical since the isolated training in technical areas may not bring the desired change outcome. Kotter (2007) considered training as critical in the instututilzation of the changes and making them stick.

4.5.   Hypothesis Testing

H0: The organizational leadership and structure adopted by an organization are not important to the sustainable change management in the Telecommunications industry in Kenya.

H1: The organizational leadership and structure adopted by an organization are important to the sustainable change management in the Telecommunications industry in Kenya.

Table 4.21:One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Leadership Style	8.04	33	.000	3.080	0.015	0.034
Technology	12.54	33	.000	1.620	0.021	0.041
Organizational culture	11.63	33	.000	2.010	0.011	0.025
Organizational structure	16.07	33	.000	3.040	0.005	0.016

Source: Field Survey, 2018

From the table above, it is clear that management of people have a p value of (.034) ; technology has a p value of 0.041; organizational culture has a p value of 0.025 and organizational structure have a p value of 0.016 all at 95 % level of significance. The significance level of all the

variables is .000 which shows that the null hypothesis is rejected in favor of the alternative hypothesis and therefore, organizational leadership and structure is considered to be important in sustainable change management. The organizational leadership and structure are measured in terms of management of people, technology, culture and the structure.

4.6   Contributions of individual factors to sustainable change management

Regression analysis was performed in order to understand the individual contribution of the various factors of sustainable change management (factors that were considered to be more important to sustainable change management). Using the B coefficients as shown in the table 4.14, it is possible to develop a multiple regression function that predicts the contribution of the individual factors to sustainable change management. It is clear that sustainable change management is a function of organizational culture, leadership style, technology, and organizational structure

Table 4.22:Regression analysis

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.430	1.062		1.06	.002
	organization culture	-.032	.031	-.130	-.342	.060
	technology	-.515	.052	-.101	-.654	.204
	organization structure	-.056	.038	-.057	-1.005	.127
	Leadership Style	.240	.065	.282	1.034	.021

Source: Field Survey, 2018

From the table above, it is clear that management of people have a p value of (.034) ; technology has a p value of 0.041; organizational culture has a p value of 0.025 and organizational structure have a p value of 0.016 all at 95 % level of significance. The significance level of all the variables is .000 which shows that the null hypothesis is rejected in favor of the alternative hypothesis and therefore, organizational leadership and structure is considered to be important in sustainable change management. The organizational leadership and structure are measured in terms of management of people, technology, culture and the structure.

The prediction is expressed in the following manner:

$$sustainable\ change\ management$$
$$= 2.430 - .032\ organisation\ culture - .515 technology$$
$$- .056 organisation\ structrurre\ + .24\ leadership\ style$$

From the equation above, leadership style (management of people) was considered to have more importance to sustainable change management because of their positive coefficient value.

CHAPTER FIVE

CONCLUSION AND RECCOMENDATIONS

5.1   Introduction

This chapter presents a summary of the findings of the study, the conclusions, recommendations and suggestions for further research.

The study sought to establish the sustainability of change management (A case of the telecommunication contractors). The objectives being to examine local construction firms involved in the telecommunications industry; to evaluate the success factors that influence change, to evaluate the organization components that influence change, to recommend the leadership style and organization structure that will lead to sustainability of the change process.

5.2   Conclusions based on study objectives

5.2.1   Evaluation of Success Factors and Change Management Sustainability

5.2.1.1 Leadership Style

The dominant leadership style by the local contractors' is where the management is keen to maintain control of the subordinates and the works tasks performed. This might be due to the managements need to ensure that the subordinate's staff and playing to the rules of the organization.

This leadership style is in sharp contrast of what is required for the management of an industry that consists of work tasks that are non-routine and least predictable. The tasks to be executed in the telecommunication industry will differ due to; different site configurations e.g. site located on building or on Greenfield; geographic and topographic location; change in technology. There is need to relax the controls that form the administrative core of the organizations to ensure that there is participative and consultative leadership. The subordinate staff can therefore participate in the decision making depending on the judgment to increase throughput and efficiency

5.2.1.2 Technology adoption

The companies have adopted the least complex technology for production such as use of CAD software and use of survey equipment and shied away from the more complex technology such as use of precast concrete panel in the construction of boundary walls.

Local contractors need to be more innovative and adopt more complex technology that will lead to efficincy in production and make the more competitive in an indusrty that involve even foreign contractors.

5.2.1.3 Processes, Rules and Procedures

The existence of processes, rules and procedures is synonymous with the leadership style adopted whereby there management has a system of imposing personal controls. This is done through the use of formal procedures, standardized reporting and control systems through the recording of written information.

It is also worthwhile to note that application of the control systems has been relaxed in areas where it can lead to sustainability of the business such as project planning and control and project management.

5.2.2 Evaluation of Organizational Components and Change Management Sustainability

5.2.2.1 Vision and Mission

The employee's awareness of the vision and mission of the company seems to be a need to know basis and there is minimal effort by the management to continuously inform the employees. Therefore there might be no clarity from the management of the direction of the company and in achieving the synchronous effort by the employees to steer the organization towards that direction.

There is concurrence by the response to the different images of the employees on the mission of the company in which it was clear there is no clarity of the mission of the company and employees have different views of the company mission.

5.2.2.2 Stakeholder Involvement in mission statement

It is evident that the most powerful group in the organization has delegated the steering of the company in the prescribed direction to the lower echelons of hierarchy. Whereas the vision mission and the strategic objectives may have been published by the Board of Directors and the Managing director at the board level this group plays a minimal role in broadcasting and embedding this to the employees.

The powerful the coalition in reinforcing the purpose and the direction, the higher the probability in achieving the required results in the right behavior to enable the organization achieve its mission.

5.2.2.3 Mode of Communication

Communication is important in ensuring that the employees understand their objectives and expectations especially where change is involved it's important to ensure that employees don't to slide back into dysfunctional behavior. The most preferred mode of communication seems to be the email due to the fact that the companies are in a technology driven industry and the projects are geographically dispersed. The communication mode adopted encourages more of external communication even with clients and other stakeholders in the industry but local contractors should enhance internal communication channels such as meetings and training.

5.2.2.4 Organization Values

There is a predominant role culture that is practiced by the organizations that were studied. This is appropriate to bureaucracies, and organizations with mechanistic rigid structures and narrow jobs. Such cultures stress the importance of procedures and rules, hierarchical position and authority, security and predictability. In essence role cultures create situations in which those in the organization stick rigidly to their job description (role) and any unforeseen events are referred to the next layer up in the hierarchy.

The role culture might be prohibitive to the performance of employees in an industry where flexibility and the speed of reaction to the task of hand is much need. A task culture which is goal and results oriented should be encouraged in the organizations in order to ensure that the team's success overrides the need for adherence to hierarchy.

5.2.2.5 Organizing Work

The contractors have many layers of management and the employees have closely defined duties evident by the existence of departments and the assignement of work by the management. The mechanistic structure of the contractors which is characterized by many layers of management and closely defined duties was also evident in the organization structures from the tree structures drawn.   The departmentalization of the organization according to the functions may have resulted to the mechanistic nature of the organizations. The contingencies of the telecommunication industry being that its dynamic and technology used is for unit production would therefore mean that a mechanistic structure will lead to poor performance.

Table 4.24: Characteristics of the Telecommunication Industry Vs. Structure

Characteristic & Performance ╲ Contingency	Characteristics of Telecommunication Industry	Mechanistic Structure Performance
Environment	Dynamic Least Predictable Volatile	Poor performance
Production Technology	Unit Production	Poor performance
Work Tasks	Non Routine Least Predictable	Poor performance

5.2.2.6 Training Programs

New skills and abilities must be learned in order to effect the required change in an organization. An effective training program that is task-based and intentionally focused on preparing people to perform new job expectations is crucial. The management training is aimed at imparting skills by technological training and entrenching impersonal control systems through training on rules and processes. The focus of the training programs should assist employees on how they can achieve their goals. Training of the employees should also be on team building in order to ensure integrate the various skills in the organization and increase the synergy in the organization towards achieving their goals.

5.3   Recommendations

Change is inevitable and for contractors to ensure the sustainability of the business and the organizations while undergoing change management the following recommendations should be considered on the leadership style and organization structure:

1. The leadership style adopted by the organization should not be aimed and maintaining control of the organization but should be geared towards the larger picture of assisting the employees achieve their goals which in turn translates to the achieving the goals of the organization. Given that most local contractors lack the financial resources to employ a multitude of leaders with varying leadership styles for each phases of change projects, the present leaders have to demonstrate a wholesome approach to leading and managing change. Literature shows that organizational leaders should adopt a participative and consultative leadership style to effect change in a dynmic environment like the telecommunication industry

2. Local contractors should employ an organization structure that matches the contingencies of the telecommunication industry particularly as an organic structure. Contingency theory suggests the need to be prepared for unforeseen future events and preparation for changes that will occur in future. It is evident that a mix between functional and divisional structures is best likely to result in enhanced organization performance than the present mechanistic structures. Moreover, an organic structure is best suited to the unique telecommunication industry as local contractors need to keep adapting and remain flexible to external knowledge, influences, and changes. Such a structure will also get rid of the hierarchical barriers and rigid tasks that are becoming outdated in the mobile technology industry.

5.4 Implication of the findings to the study

The findings of this study generally contribute to existing body of literature. The problem statement and associated literature confirmed that there are limited investigations that have been directed to sustainable change management in telecommunication contractors. In addition, there is no known study that has examined sustainable change management in local contractors more so on the need for those involved in traditional construction industry to change their organizational processes , work processes and more importantly behavior and culture. This implies that there was a research gap in this area to be filled. The study established

that personnel behavior and organization culture by contractors that form the backbone of traditional construction industry have resulted in poor performance of the firms in emerging technological fields such as telecommunication industry. There is therefore need for local contractors to upgrade their leadership, knowledge, skills and cultural values in order to remain competitive and maintain business. The findings therefore imply that the research questions were appropriately answered and the objectives were met.

5.5   Further Research

Areas of further study as follows

1. Level of bias on the choice of organization structure due to the management experience and knowledge other than matching the contingencies

2. The influence of company politics in the choice of the organization structure other than being based on the contingencies and technical perspective

REFERENCES

Abbas, W., & Asghar, I. (2010). *The Role of Leadership in Organizational Change: Relating the successful Organizational Change with Visionary and Innovative Leadership* (Master's Thesis). University of Gävle, Gävle, Sweden.

Al-Qura'an, A. (2015). The Impact of Transformational Leadership on Organizational Change Management: Case Study at Jordan Ahli Bank. *IOSR Journal of Business and Management, 17*(12), 1-7.

Allaire, Y., & Firsirotu, M. (1984). Theories of Organizational Culture. *Organization Studies*, *5*(3), 193-226.

Andiva, Y. (2018). Tech in construction: A necessity to ensure a clean line of sight into projects and financial data in Africa. *Construction review online*. Retrieved from https://constructionreviewonline.com/2018/04/tech-in-construction-a-necessity-to-ensure-a-clean-line-of-sight-into-projects-and-financial-data-in-africa/.

Appelbaum, S., Habashy, S., Malo, J., & Shafiq, H. (2012). Back to the future: revisiting Kotter's 1996 change model. *Journal of Management Development, 31*(8), 764-782.

Attar, G. A., & Sweis, R. J. (2009). The relationship between information technology adoption and job satisfaction in contracting companies in Jordan. *Journal of Information Technology in Construction (ITcon)*, *15*(3), 44-63.

Awa, K. I. (2016). Functional structure and operational issues: An examination of core challenges and remedies. *IOSR Journal of Business and Management, 18*(1), 1-4.

Baesu, C., & Bejinaru, R. (2014). Leadership approaches regarding the organizational change. *The USV Annals of Economics and Public Administration*, *13*(2 (18)), 146-152.

Beech, N., & MacIntosh, R. (2012). *Managing Change. Enquiry & Action*. Cambridge: Cambridge University Press.

Bevan, R. (2011). *Changemaking: Tactics and Resources for Managing Organizational Change*. Seattle: ChangeStart Press.

Blomqvist, D. (2017). *An examination of change management models for successful execution of a change initiative* (Thesis). Arcada University of Applied Sciences, Helsinki, Finland

Boddy, D., & Buchanan, D. A. (1992). *Take the lead: interpersonal skills for project managers*. Hemel Hempstead, UK: Prentice Hall.

Beitler, M. A. (2003). *Strategic Organizational Change: A Practitioner's Guide for managers and Consultant.* Greensboro, NC: Practitioner Press International.

Buchanan, D. (1984). The impact of technical implications and managerial aspirations on the organization and control of labor process. *Paper presented to the second Annual Conference on the control and organization of the labor process* (March), pp. 28-30.

Burnes, B. (1996). No such thing as ....a 'one best way' to manage organizational change. *Management Decisions*, 34(10),11-18.

Burnes, B. (2004). Kurt Lewin and the planned approach to change: a re-appraisal. *Journal of Management Studies*, *41*(6), 977-1002.

Burnes, B. (2009). *Managing change* (5th ed.). Harlow, UK: Prentice Hall.

Burnes, B., & Jackson, P. (2011). Success and failure in organizational change: An exploration of the role of values. *Journal of Change Management*, *11*(2), 133-162.

Calder, A. (2013). *Organisational Change: Models for Successfully Implementing Change* (Thesis). Utah State University, Logan, UT.

Carpenter, M., Bauer, T., & Erdogan, B. (2010). *Principles of Management*. Mountain View, CA: Creative Commons.

Chege, M. E., & Gakobu, J. (2017). Influence of leadership styles on performance of telecommunication industry in Kenya. *International Academic Journal of Human Resource and Business Administration*, *2*(4), 256-281.

Child J. (1984). *Organization.* Cambridge: Harper & Row.

Coetzee, R., Visagie, J., & Ukpere, W. (2012). Leading a successful change intervention in a modern organisation: Key elements to consider. *African Journal of Business Management*, *65*(1), 12068.

Claire, M., & Douglas, E. (2010). *Change Management Strategies for an Effective EMR Implementation.* Ohio, USA: HIMSS.

Dawson, P. M. (1994). *Organizational change: A processual approach*. London: Paul Chapman Publishing.

De Bruijn, H. (2012). *Managing professionals*. London: Routledge.

Dentinger, S., & Derlyn, E. (2009). *Drivers and Implementation of Change: An attempt to depict successful factors* (Master's Thesis)*.* Baltic Business School, Kalmar, Sweden.

D'Ortenzio, C. (2012). *Understanding change and change management processes: a case study* (Thesis). University of Canberra, Canberra, Australia.

Ford, M. W., & Greer, B. M. (2005). The relationship between management control system usage and planned change achievement: An exploratory study. *Journal of change management*, *5*(1), 29-46.

French, W. L., & Bell, C. H. (1999). *Organization development: Behavioral Science Interventions for Organization Improvement*. Englewood Cliffs, NJ: Prentice Hall.

Gershom, H. (2016). *Effects of strategic change on organizational performance: A case of Kenyan mobile telecommunications industry* (Master's thesis). Catholic University of Eastern Africa, Nairobi, Kenya.

Güler, S. (2010). *Change Management: A Case Study of SAP Implementation in a Major Company* (Master's thesis). Chalmers University of Technology, Göteborg, Sweden.

Gwaya, A. S., Masu, S., & Oyawa, W. A. (2014). The role of servant leadership in project management in Kenya. *International journal of soft computing and engineering*, 2231-2307.

Hendry, C. (1979). Contigency theory in practice. *Personnel Review*, 8(4), 39-44.

Hiatt, J. M. and Creasey, T. J. (2003): *Change Management: The People Side of Change.* Prosci Research, Loveland, CO, USA.

Hickson, D., & Butler, R. (1982). *Power and Decision Making in the Organisational Coalition.* Research Report Presented to the Social Science Research Council.

Holten, A. L., & Brenner, S. O. (2015). Leadership style and the process of organizational change. *Leadership & Organization Development Journal*, *36*(1), 2-16.

İkinci, S. S. (2014). Organizational Change: Importance of Leadership Style and Training. *Management and Organizational Studies*, *1*(2), 122-128.

Jones, L., Watson, B., Hobman, E., Bordia, P., Gallois, C., & Callan, V. J. (2008). Employee perceptions of organizational change: impact of hierarchical level. *Leadership & Organization Development Journal*, *29*(4), 294-316.

Jörn, A. (2016). *Dynamic Capabilities at IBM*. Hamburg, Germany: Anchor Academic Publishing.

Kakucha, W., Simba, F., & Anwar, A. (2018). Effects of Organization Structure on Strategic Change Management in Mombasa County Government. *Journal of Public Policy & Governance*, *2*(1), 21-42.

Keter, A. (2015). *Challenges of Strategy Implementation in the Telecommunication Industry in Kenya: A Case of Safaricom Limited* (Doctoral dissertation). United States International University-Africa, Nairobi, Kenya.

Kilpimaa, J. (2006). *Factors influencing successful change management in IT outsourcing from transferred personnel point of view* (Dissertation). University of Tampere.

Kotter, J. P. (1996) *Leading Change.* Brighton, MA: Harvard Business Press.

Kotter, J. (2007). Leading change: Why transformation efforts fail. *Harvard business review*, *86*, 97-103.

Lawler, E. E. (2013, July 29). Make Performance Appraisals Change Friendly. *Forbes.com.* Retrieved from https://www.forbes.com/sites/edwardlawler/2013/07/29/make-performance-appraisals-change-friendly/#5a6d53776dbb.

Leifer, R., & Huber, G. (1977). Relations amongst perceived environmental uncertainity, organisational structure and boundary-spanning behaviour. *Administrative Science quarterly*, 22,235-47.

Lewin, K. (1958). *Group decision and social change*, In Maccoby, E. E., Newcomb, T. M., Hartley E. L. (eds.) Readings in Social Psychology. New York: Holt, Rinehart & Winston.

Lorsch, J. (1970). *Introduction to the structural design of organisations.* (In GW Dalton. PR Lawrence and JW Lorsch, Ed.) London: Irwin-Dorsey.

Macredie, R., Paul, R., Anketell, D., Lehaney, B., & Warwick, S. (Eds.). (1998). *Modelling for added value*. London: Springer Science & Business Media.

Malek, R., & Yazdanifard, R. (2012). Communication as a crucial lever in change management. *International Journal of Research in Management & Technology*, *2*(1), 52-57.

McCarthy, C., & Eastman, D. (2010). *Change management strategies for an effective EMR implementation*. Chicago, IL: HIMSS.

Miller, D. (2001). Successful change leaders: what makes them? What do they do that is different?. *Journal of Change Management*, *2*(4), 359-368.

Mintzberg, H. (1983). *Power in and around Organizations.* (E. Cliffs, Ed.) NJ, USA: Prentice Hall.

Mlanya, L. M. (2015). *Stakeholder involvement in Strategic management and performance of British-American Investments Company limited (BAICL)* (Doctoral Dissertation). University of Nairobi, Kenya.

Mugenda, O., & Mugenda, A. (2003). *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: African Centre for Technology Studies.

Mullins L. (1989). *Management and Organisational Behaviour.* London, UK: Pitman.

Mutali, E. (2017). Strategic leadership and change management at Equity bank. *International Academic Journal of Human Resource and Business Administration*, *2*(4), 49-67.

Muteti, M. N. (2013). *Management of Strategic Change at the Telkom Kenya Limited* (Doctoral dissertation). University of Nairobi, Nairobi, Kenya.

Murimi, M. J. (2016). *Influence of leadership styles on timely completion of road construction projects in Kenya: a case of Norken ltd, Nairobi, Kenya* (Master's Thesis). University of Nairobi, Nairobi, Kenya.

Muiruri, P. (2016, February 4). NCA boss: Local contractors can't do big projects.

Standard Digital.Retrieved from https://www.standardmedia.co.ke/lifestyle/article/2000190474/nca-boss-local-contractors-can-t-do-big-projects.

Mwendwa, M. (2017). *Effects of Multidimensional Culture on Organizational Performance of the Mobile Telecommunications Firms in Kenya* (Doctoral dissertation). United States International University-Africa, Nairobi, Kenya.

NCA. (2014). Construction Industry Survey. *National Construction Agency report*. Retrieved from http://nca.go.ke/new/website-content/uploads/2017/05/Construction-Industry-Survey-Report-2014.pdf.

Ndirangu, M. (2017). *Internal Factors Influencing Strategy Formulation in the Telecommunications Industry in Kenya: A Case of Telkom Kenya* (Doctoral dissertation). United States International University-Africa, Nairobi, Kenya.

Ngigi, P. N. (2016). *Evaluation of Alternative Construction Technologies in the Delivery of Affordable Housing-A Case Study of Nairobi County* (Master's Thesis). Jomo Kenyatta University of Agriculture and Technology, Juja, Kenya.

Nickols, F. (2008). *Change Management 101: A Primer*. Distance Consulting LCC. Retrieved from http://home.att.net/~nickols/change.htm.

Njuguna, C. (2013). *Innovation as a Strategy to Attain Competitive Advantage in the Kenya Telecommunication Industry: A Case Study of Safaricom Kenya* (Master's Thesis). Daystar University, Nairobi, Kenya

Oakland, J. S., & Tanner, S. (2007). Successful change management. *Total Quality Management & Business Excellence*, *18*(1-2), 1-19.

Ocharo, A. K. (2014). *Factors influencing change management practices in the telecommunication industry in Kenya* (Master's Thesis). University of Nairobi, Nairobi, Kenya.

Ochieng, B. (2012). *Managing change at Telkom Kenya* (Doctoral dissertation). School of business, University of Nairobi, Nairobi, Kenya.

Ochoti, O. J. (2016). *Employee adaptation to strategic organizational change at the business market department of Telkom Kenya* (Doctoral dissertation). University of Nairobi, Kenya.

Okoth, A. L. (2013). *Challenges of strategic change management at the Kenyatta National Hospital in Kenya* (Master's Thesis). Africa Nazarene University, Nairobi, Kenya.

Onyango, W. P. (2014). Effects of Organization Culture on Change Management: A Case of the Vocational Training Centre for the Blind and Deaf Sikri. *European Journal of Business and Management*, *6*(34), 204-214.

Oyaya, W. O. (2016). *Influence of leadership style on performance of construction projects: a case of housing projects in Westlands sub-county, Nairobi Kenya*. University of Nairobi, Nairobi, Kenya.

Paton, R. A., & McCalman, J. (2008). *Change management: A guide to effective implementation*. Thousand Oaks, CA: Sage.

Papulova, Z. (2014). The significance of vision and mission development for enterprises in Slovak Republic. *Journal of Economics, Business and Management*, *2*(1), 12-16.

Pavlov, I. P. (1927). *Conditional reflexes: an investigation of the physiological activity of the cerebral cortex*. Oxford, England: Oxford University Press.

Perrow, C. (1983). The Organizational Context of Human factors engineering. *Administrative Science Quartely*, 28,521-41.

Peter, T., & Waterman, R. (1982). *In Search of Excellence: Lessons from America's Best-Run Companies.* London: Herper & Row.

Robbins, P. S., & Coulter, M. (1999). *Management* (6th, illustrated ed.). Prentice Hall International.

Salminen, A. (2000). *Implementing organizational and operational change-critical success factors of change management.* Helsinki, Finland: Helsinki University of Technology.

Schein, E. H. (1996). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Systems practice*, *9*(1), 27-47.

Scott WR. (1987). *Organizations: Rational, Natural and open Systems.* NJ, USA: Prentice-Hall: Eaglewood Cliffs,

Self, D. R., Armenakis, A. A., & Schraeder, M. (2007). Organizational change content, process, and context: A simultaneous analysis of employee reactions. *Journal of change management*, *7*(2), 211-229.

Simons, R. (1995). *Levers of Control*. Boston: Harvard Business School Press.

Sirkin, H. L., Keenan, P., & Jackson, A. (2005). The hard side of change management. *Harvard business review*, *83*(10), 108.

Shahrabi, B. (2012). The role of organizational learning and agility in change management in state enterprises: A customer-oriented approach. *International Research Journal of Applied and Basic Sciences*, *3*(12), 2540-2547.

Taylor, S. (2011). *Contemporary issues in Human Resource Management*. London: Chartered Institute of Personnel and Development.

Thompson J. (1967). *Organizations in Action.* New York, USA: McGraw-Hill.

Thurlow, A., & Helms Mills, J. (2009). Change, talk and sense making. *Journal of Organizational Change Management*, *22*(5), 459-479.

Todnem By, R. (2005). Organisational change management: A critical review. *Journal of change management*, *5*(4), 369-380.

Turner, B. (1971). *Exploring the Industrial Subculture.* London: Macmillan.

Wamuyu, P. K. (2015). The impact of information and communication technology adoption and diffusion on technology entrepreneurship in developing countries: The case of Kenya. *Information Technology for Development*, *21*(2), 253-280.

Wangari, K. (2016). *The Influence of Organizational Culture on Change Management in the Energy Sector* (Master's thesis). United States International University-Africa, Nairobi, Kenya.

Wanjohi, S. W. (2014). *Organisational culture and change management practice in the Kenyan media industry* (Doctoral dissertation). University of Nairobi, Nairobi, Kenya.

Wanyama, M. N. (2013). *Stakeholder involvement in change management at Kenya Ports Authority.* (Unpublished MBA project). University of Nairobi, Nairobi, Kenya.

Wilson, D. C. (1992). *A Strategy of Change.* London: Routledge.

You, J., Kim, J., & Lim, D. H. (2017). Organizational Learning and Change: Strategic Interventions to Deal with Resistance. In *Handbook of Research on Human Resources Strategies for the New Millennial Workforce* (pp. 310-328). IGI Global.

Youssef, A. B., Hadhri, W., & M'Henni, H. (2014). Adoption of information and communication technologies and new organizational practices in the Tunisian manufacturing sector. *Economics Bulletin*, *34*(4), 2237-2252.

Appendix B:

QUESTIONNAIRE

QUESTIONNAIRE

Dear Sir/Madam

I am in the process of completing a Master of Arts degree course in Construction Management at the University of Nairobi. As part of the requirement I am undertaking a research thesis titled 'Sustainable Change Management: A Case of Telecommunication Contractors'

The main objectives of this survey will be to:

    i)   To evaluate the success factors that influence change,

    ii)   To evaluate the organization components that influence change

Please find below questionnaire purely designed for academic reasons of collecting data. Kindly fill in the questionnaire, the information you give will be treated with utmost confidentiality.

Your cooperation in answering this questionnaire is highly appreciated.

Thank you.

Yours
Sincerely

James Gathingi Mwangi

Section One: General Information of the Respondents (*Tick as appropriate*)

1. Please state your domain in the Mobile Telecommunications industry.

	Mobile Operator
	Consultant
	Contractor
	Supplier
	Other, Please specify_____

2. Please state your specific role in the Mobile Telecommunications Industry.

	Project Management
	Engineering
	Environment
	Materials
	Civil Works
	Site Supervision
	Acquisition
	Other, Please specify_____

3. Kindly indicate your years of service in the Mobile Telecommunications Industry.

	0 – 5 years
	5 – 10 years
	Above 10 years

4. Is your firm registered with NCA and what Category

5. Which of the following functional divisions exist in your organization?

☐ Engineering   ☐ Project Planning
☐ Project management   ☐ Logistics/Supply Chain
☐ Finance   ☐ Quality Management
☐ Health Safety & Environment

6. In general have you ever heard of change management?

[ ] Yes   [ ] No

Classification of degrees

Very High Degree	>80%
High Degree	70-79%
Medium Degree	50-69%
Low Degree	40-49%
Very Low Degree	<40%

Section Two:

The organizing of **People, Technology and Process** and their interaction with the **Environment** determine the outcome of a change management initiative**.** Please give your view by filling the blank spaces or by putting a tick [√] in the appropriate box in the table that agrees with your response.

1. **Leadership Style**

    Which of the following best describes the leadership style of your immediate supervisor?

    a) ☐ Organizes , Co-ordinates, Controls and Directs

    b) ☐ Indicates Step- by Step what Employee should do and keep close supervision of performance

    c) ☐ Collaborative

    d) ☐ Participative (makes decisions together with employees and supports in task performance)

    e) ☐ Consultative

    f) ☐ Combination of one of the above

2. Technology Adoption

To what degree would does the company use New Technology and Advancements in carrying out the activities as described

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
2.1	Use of CAD software in production of site designs						
2.2	Use of survey equipment such as GPS,dumpy level						
2.3	Use of heavy machinery in excavation works						
2.4	Use of concrete mixers						
2.5	Precast concrete elements in boundary walls etc						
2.6	Use of Derricks and cranes in rigging works						
2.7	Use of Site Master & Cell alignment tools						

3. Processes, Rules and Procedures

Describe the degree of application of processes and procedures in the following planning, management and production areas in your organization

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
3.1	Engineering Design						
3.2	Project Planning and Control						
3.3	Health, safety & Environment						
3.4	Logistics and Supply Chain Management						
3.5	Quality Management						
3.6	Project Management						
3.7	Finance and administration						

4. **Environment**

4.1 In which areas of the Construction Industry is your firm involved?

☐ Buildings, Housing and Real Estate including Commercial & Industrial

☐ Road & Bridges Construction

☐ Mobile Telecommunication Industry

☐ Power and Transmission Industry

☐ Oil & Gas Industry

☐ Other (Specify)_____

If all the above state, the order of priority (with No1 being the highest and No. 5 being of the lowest priority)

4.2 State the No of clients in the telecommunication industry

4.3 Which of the below describes the manner in which the company implements projects?

☐ Internal Resource   ☐ Joint Venture

☐ Sub-contracting   ☐ Combination of any two

SECTION THREE

1. Does the top management share vision of your company with everyone within the company?

   a) ☐   Always
   b) ☐   On new Basis
   c) ☐   Never

2. Is the mission derived by everyone within the Company

   a) ☐   Always
   b) ☐   On new Basis
   c) ☐   Never

3. Are there different images/ideas about the mission of the organization within your department/unit?

   a) ☐   Heterogeneous
   b) ☐   Homogenous
   c) ☐   Leadership Profile

4. Describe the level of involvement of the following **stakeholders** in the communicating the mission and the vision of the company

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
4.1	Board of directors						
4.2	CEO/Managing Director						
4.3	Executive Team/ senior Managers						
4.4	Non-executive mangers & Supervisors						
4.5	Non Managerial level - Employees						

5. How Employees are communicated their objective and job Expectations?

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
5.1	Department meetings						
5.2	All Employee meting						
5.3	Training Sessions						
5.4	Letter, Memo from organizations Management						
5.5	Material posted on organization premises such as break rooms						
5.6	Video/Phone Conference						
5.7	E-Mail from organizations Management						
5.8	Information posted on Company Web						

6. To which extent do the statements below describe your perception of what the **Organizations Values** while executing your duties?

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
6.1	Values rules fulfillment						
6.2	Values goal achievement						
6.3	Values sincerity and participation						
6.4	Values Collaboration in goals achievement						
6.5	Values Contribution of creative ideas						
6.6	Values the initiative in finding new solutions						

7. How many levels of hierarchy are therein your organization

   a) ☐ Many (Hierarchical)   b) ☐ Few (Flat)

8. Fill the box that describes the degree that your firm use the following ways in Organizing of works?

   a) ☐ Quality Circles/groups   b) ☐ Delegation of responsibility

   c) ☐ Planned job rotation   d) ☐ As per resource availability

   e) ☐ Integration of functions   f) ☐ Specialization

9. Fill in the empty boxes below the number of employees and whom they report to on each category

Sr No.	EMPLOYEES	TOTAL NUMBER.	STATE IMMEDIATE SUPERVISOR(S) (Indicate Sr No.)
1.	Directors		
2.	CEO		
3.	General Manager		
4.	Executive Managers (Functional)		
5.	Project Managers		
6.	Ass. Project Managers		
7.	Quantity Surveyors		
8.	Civil/Structural Engineers		
9.	Ass. Engineers		
10.	CAD technicians (draughtsman)		
11.	Geotechnical Engineer		
12.	Electrical Engineers		
13.	Mechanical/Production Engineers		
14.	Telecommunications Engineer		
15.	Implementation Manager (Engineer)		
16	Civ. Eng. Technicians (H. N. Diploma & Diploma)		
17.	Elec. Eng. Technicians (H. N. Diploma & Diploma)		
18.	Foremen		
19.	Craftsmen		
20.	Supply Chain Manager		
21.	Logisticians		
22.	Warehousing Assistants		
23.	Marketing Managers		
24.	Human Resources Managers		
25.	Finance Manager		
26.	Accountants		
27.	IT technician		

10. Which of the below describes the emphasis on the company **training** programs?

No.	STATEMENT	Very high degree	High degree	Medium degree	Low degree	Very Low degree	Don't Know
10.1	Goal achievement training						
10.2	New technology, Innovation and change training						
10.3	Leadership/Human resource management training						
10.4	Technical & professional training						
10.5	Company rule, procedure and process training						

11. Does your company have a performance appraisal system?

    [ ]   Yes   [ ] No

12. The most significant reasons using performance appraisal are

    a) ☐ Payroll & Compensation decisions

    b) ☐ Training & development needs

    c) ☐ Identifying gaps in desired and actual performance

    d) ☐ Deciding future goals and course of action

    e) ☐ Taking decisions regarding promotions, demotions and termination

13. Do you have any reward systems based on the employee performance appraisal?

    [ ]   Yes   [ ] No

-END-