STRATEGIC MANAGEMENT PRACTICES AND ORGANIZATIONAL PERFORMANCE IN THE CONSTRUCTION INDUSTRY IN KENYA: CASE STUDY OF ALLIED PLUMBERS LIMITED.

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER IN BUSINESS ADMINISTRATION, OF THE MANAGEMENT UNIVERSITY OF KENYA.

2020

DECLARATION

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

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DEDICATION

I dedicate this project to my parents Mr. and Mrs. Wesley Omari Ogeto, my wife Beatrice, children Valerie, Shaylee and Roxanna, and siblings Janet, Esther, Pius, Gekara, Nancy and Bonuke for their unwavering support and encouragement during the whole of my study period, and to the Almighty God for the wisdom and gift of life that has made me realize and see the conclusion of this research.

ACKNOWLEDGEMENT

I thank Almighty God for His grace and sustenance that has seen me to completion of this research project successfully. My sincere appreciation is extended to my workmates Charity Wairimu, Davis Mutai, Wilson Waithaka, Mark Njenga, Rosaline Njeri, Rachel Ndinda and Dhrumin Patel for their encouragement and motivation during my study and research duration. I humbly acknowledge the unwavering support from my supervisor Mr. Samuel Thiong'ó for his superb guidance, all other course facilitators and lecturers for morally and academically support, and the Management University of Africa for the opportunity to pursue my career.

I thank my colleagues and course mates Osoro Jared, Moses Leseiyo, Hanan Mohamed, Anvil Achieng, Priscilla Gitu, Penina Kibisu, Kennedy Chomba and Janet Karani for the encouragement throughout this study in fruitful discussions and any other support as we explored education.

ABSTRACT

This study sought to examine the significance, roles and contributions of strategic management practices and organizational performances in the construction industry in Kenya, with a focus on Allied Plumbers Limited. The research objectives were to identify the effect of strategic infrastructure management**,** to examine influence of strategic human resource management**,** to establish strategic procurement contribution, and **to** determine strategic information system contribution to Organizational performance. Scope of study was employees of Allied Plumbers limited Nairobi. The study was based on competitive Advantage theory as anchor theory, supplemented with Core competence (innovation) and Contingency theories. The study explored various literatures related to variables of study and identified research gaps and suggested strategy to mitigate the same. Descriptive research design was used as the researcher sought to study a specific situation, as it sought to establish the roles and relationship between aspects of the study. The target population were employees of Allied Plumbers limited drawn from planning and finance, human resource and administration, procurement, engineering and operations, tendering and contracts, and site and construction departments. The study used Yamane formula to come up with as sample size of 47 respondents from a target population of 53 employees. The questionnaire was used as data collection instrument for the study. Data analysis technique was descriptive statistics with aid of statistical package for social studies (SPSS); inferential statistics was used with multivariate regression analysis to identify a mathematical relationship between the variables. A Likert scale was used to measure indicators. Descriptive statistics method was applied to analyze quantitative data where data was scored by calculating the percentages, mean' and standard deviation. The study found out that with strategic infrastructure management, human resource management, procurement and information systems in place, influences organizational performance. The study concluded that organization has in place requisite strategic infrastructure management and information systems, but not fully embracing strategic human resource management and delegation of procurement authority is at minimal. From the findings the study recommended that organization need to enhance all its strategic management practices, and more so to put more emphasis on strategic human resource management policy to focus on talent management, training and development, employee engagement, and succession planning for the organization to be innovative, have smooth transition, delegate procurement authority, timely completion of projects, and gaining and having a sustainable competitive advantage in the construction industry. The study recommended that further study need to be carried out in other related constructions organizations and other sectors of the economy in out of the country to ascertain and relate the findings.

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ABBREVIATIONS AND ACRONYMS

CAD	**:**	Computer Aided Design
FIDIC	:	Federation Internationale des Ingenious Counsel (International Federation of Consulting Engineers).
ICT	:	Information Communication technology.
JBC	**:**	Joint building Council.
KABCEC	**:**	Kenya Association of Building and Civil Engineering Contractors.
KCAA	:	Kenya Civil Aviation Authority.
KCB	:	Kenya Commercial Bank.
NCA	:	National Construction Authority.
NWSC	:	Nairobi Water and Sewerage Company.
SHRM	:	Strategic human resource management.
SIM	:	Strategic infrastructure management.
SIS	:	Strategic information System
SMEs	:	Small and medium enterprises.
SP	:	Strategic Procurement.

OPERATIONAL DEFINITION OF TERMS

Performance **:** The accomplishment of a given task measured against preset known standards of accuracy, completeness, cost, and speed. In Contract it is the fulfillment of an obligation, in a manner that releases the performer from all liabilities under the contract.

Strategic infrastructure management: Linking of organization's essential operation components (policies, processes, equipment, data, human resources, and external contacts) with organization objectives for overall effectiveness.

Strategic Human Resource Management: involves a future oriented process of developing and implementing human resource programs that address and solve business problems and directly contribute to major long-term business objectives.

Strategic Information system **:** System that helps organization change their business strategy and structure, typically utilized to speed up the reaction time to environmental changes, and aid in achieving a competitive advantage.

Strategic Procurement **:** Wide process in an organization that aims to ensure the timely supply of goods and services in line with the organization business goals, while reducing risk within the supply chain.

CHAPTER ONE

INTRODUCTION

1.0.Introduction

This section covers background of the study, the profile of Allied Plumbers limited, construction industry, research problem, research objectives, and significance of study, scope, and chapter summary.

1.1. Background of study

1.1.1. Performance

Performance is not just about efficiency but achieving desired results, and several attempts have been made in the construction industry to develop measures for construction project performance in order to meet improved targets (Omopariola, Dele, Ilori, & Windapo, 2019). For organizations to achieve performance and sustain it in tandem with objectives and goals, right practices of integrating and executing activities within the organization have to be adhered to.

As the construction market becomes increasingly more global, construction companies must learn to survive and thrive in today's competitive and intense international business environment (Jang, Ahn, Park, Lee, & Kwon, 2019). In order to achieve superior performance and competitive advantage in the globalized construction market, executives must learn how to design business models that will enable their companies to successfully navigate in this complex, high-pressure business environment (Jang, Ahn, Park, Lee, & Kwon, 2019). All construction business organizations, regardless of their size in terms of number of employees, age in terms of years of existence and the type of work undertaken, are all confronted with intense competition in their business environment (Yankah & Dadzie, 2015). While most other industries have undergone tremendous changes over the last few decades, and have reaped the benefits of process and product innovations, the Engineering and Construction sector has been hesitant about fully embracing the latest technological opportunities, and its labour productivity has stagnated accordingly (World Economic Forum, 2016) and this unimpressive track record can be attributed to various internal and external challenges: the persistent fragmentation of the industry, inadequate collaboration with suppliers and contractors, the difficulties in recruiting a talented workforce, and insufficient knowledge transfer from project to project.

The key challenge in most African countries is to expand the role of the domestic private sector in major construction projects, the domestic private sector tends to be made up of small firms, which operate in relatively limited geographical areas, and where they are operational, they compete by using low capital-intensive and high labour-intensive techniques, and by offering very low bids (Economic Commission for Africa, 2015). Above all, domestic private sector construction firms in most African countries have difficulties competing even in their home country markets, with the larger firms that operate internationally by offering a wide range of specialized engineering and management services (including combinations of physical construction and architectural and engineering services), as well as the use of advanced technology.

The Construction sector in Kenya is set to grow steadily for the next decade due to the increased number of projects that are to be undertaken in the various parts of the country and expected to develop further in the country since infrastructure development is a central pillar of Kenya's Vision 2030 (Wetangula & Mazurewicz, 2017). Kenyan firms have for a long time complained about their Chinese rivals' competitive advantage both in large public infrastructure contracts and smaller-scale private sector projects (Competition Authority of Kenya, 2017). Kenyan construction companies are struggling to be afloat in the market due to prevailing market competition and entry of foreign contractors in the market who seem more strategic as compared to local counterparts. In construction sector technology is crucial since it affects performance, hence those construction companies that do not possess the required technology are unable to compete with the ones that are well equipped (Competition Authority of Kenya, 2017), further states that capital has been outlined as one of the major challenges faced by entrepreneurs in the construction sector in Kenya, coupled with complacence among the contractors as they tend to settle for what they have attained.

1.1.2. Strategic management practices

A successful implementation of infrastructure management requires that, in developing stable countries, the construction industry re-evaluate its methods of doing business; that is the industry needs to focus on the life-cycle aspect of product/infrastructure rather than on the initial capital cost; this requires also a series of changes in specific management methods, organizational structure, and the overall approach to infrastructure decisions (Abuzayan, Whyte, & Bell, 2014). Through its infrastructure management, the firm strives to effectively and consistently identify external opportunities and threats, identify resources and capabilities, and support core competencies. Accumulated infrastructure management over time due to experience of within the industry facilitates creation of core resources within the organization that enables cost effective processes.

The practice of strategic human resource management is vital to assess and to determine if companies succeed or fail or varying the performance levels, and human resource management has evolved to be the most strategic and significant part of organizations (Akeel, Omar, & Masrom, 2019), this is crucial as most organizations use in-house employees in execution of their day to day tasks. Strategically focused human resource management in the firm helps the firm to retain talents and keep employee functioning at high level (DelCampo, 2011). Competitive advantage based on human talent has become essential in today's war of talent (DelCampo, 2011), further stated that human resource strategy is composed of, and advanced by, a set of human resource tactics consisting of individual policies that capitalize on competitive advantage for the firm as a whole. One of the most critical challenges facing organizations is the reality that strategies are not always implemented as originally planned (Parnell, 2014), but with well trained and skilled staff strategic decision sometimes evolves within an organization with respect to prevailing business environment.

Procurement strategies today play an important role in organizations' success more than ever before and have become an integral part of the organizational strategic plan and technology has developed giving opportunity to more efficient and effective procurement (Orina & Kimencu, 2018). Strategic procurements need to have interconnectedness of the activities, meaning that the output of one stage has an impact on the input of the subsequent stage, for instance, an insufficient specification of the requirements can lead to a poor quality of goods that does not meet the requirements of internal customers (Apostolova, Kroon, Ritcher, & Zimmer, 2015). Strategic purchasing is a critical driving force in organization which does not only comprise the achievement of the cheapest price, but rather focuses on a close link to the supply base, an early supplier involvement, and the involvement of logistical activities. For effective performance to organizations vital executable phases of procurement has to be adhered to detail that is specification, selection, contracting, ordering and expediting and evaluating phase (Apostolova, Kroon, Ritcher, & Zimmer, 2015).

It has been widely acknowledged that the use of information technology and digitalization of construction processes enhances productivity, reduces project delays, and improves the quality and safety of construction projects and the developments in information technology (IT) and ease of global communication has remarkably enhanced the internationalization of the construction industry by the transformation of construction technology from one country to another (Amiri & Bausman, 2018). The Engineering and Construction sector has been slower to adopt and adapt to new technologies than other global sectors, while innovation has occurred to some extent on the enterprise or company level, overall productivity in the sector has remained nearly flat for the last 50 years (World Economic Forum, 2016). Technology can be a most powerful strategic weapon that enables both small and large construction companies to carve out a niche for themselves in global markets (Amiri & Bausman, 2018). Current products are based on so many critical technologies that most of the enterprises cannot keep constantly updated in all of them (Shekhar, 2012), further states that in order to benefit from the advantages of IT, organizations have to keep in mind that IT cannot be isolated from its organizational context. In current context information system is forming a good basis for the emergence of a new and innovative ways of organizing operations within an organization, and to realize positive performance as a result of information system many organizations need to be redesigned by making fundamental changes in organizational behavior, develop new business models and eliminate the inefficiencies of outdated organizational structures.

Family businesses are present in every country around the world, and often collectively dominate the economy of their particular country or region (Alderson, 2018), and the vast majority of businesses in the world are owned or controlled by families. The organization forming case study of this research is a family owned business at its second and third generational level of ownership and control. In equal measure, many of the terms used when discussing family businesses can be condescending: small, unprofessional, rife with conflict, unable to compete, nepotistic, often failing to succeed, financially underperforming, unfavorable work environments, slow growing, and supplying of dead-end jobs (Alderson, 2018). there are a number of obstacles for family firms to grow and survive in the long term, these demands include normal business challenges such as being part of a business lifecycle, intensifying competition, and new technologies, risk aversion due to high levels of ownership concentration and intentions to maintain family control which influences decisions to take on growth opportunities (Ungerer & Mienie, 2018).

1.1.3. Allied Plumbers Ltd

Allied Plumbers limited is plumbing, drainage and fire protection installations contractor (referred as construction services contractor) in construction industry in Kenya with subsidiaries or related firms within East Africa states that is Uganda, Tanzania and recently Rwanda. Since inception then incorporation the company has been dedicated in executing building services installations to meet the industry demands, and has diverse and exceptional experience in the construction industry in both public and private sector dating back from 1968.

Just after independence Mr. Jandu Pyarasingh an entrepreneur started as an individual in carrying out maintenance of plumbing installations to Indian community residential units within Ngala and Parklands, Nairobi just after independence. On realizing that their repair works were increasing and even new works were coming up, they saw potential business opportunity to be exploited leading to him forming a plumbing company by the name Allied Plumbing Limited which was registered in the year 1968 which later incorporated as Allied Plumbers Limited in the year 1976. From a repair and maintenance by one person the company has grown and expanded its branches within East Africa. the company currently has its registered offices, stores and workshops along Maasi road off Mombasa road and management office based at West one building Parklands Nairobi and boast with vibrant work force of more than 500 employees both permanent, on contract and casuals. Allied plumbers limited has also diversified to open other sister companies in partnership with other entities within and outside Kenya that is Plumbware Ltd., hardware outlet based in Kenya, Allied Utilities Services (E.A) Ltd., Waste water treatment company based in Kenya with operation within East African states, Allied Plumbers (U) Ltd based in Uganda and Jandu Plumbers Ltd. based in Tanzania

Performance of Allied Plumbers limited is anchored on its experience in the construction industry that is capitalizing on the industry and client requirements in ensuring it maintains its market share. Not many companies could get away with calling themselves "a humble bunch of plumbers wanting to take care of your plumbing and drain service needs without sounding inauthentic" (May, 2020), Plumbing drainage and firefighting installations is a specialized and exceptionally crucial services installations in buildings both internally and externally. Where in respect of any building, the owner of such building shall provide a plumbing and drainage installation and ensure that a suitable means of supply of portable water and disposal of water borne sewage are available, also number of sanitary fixtures to be provided in any building shall be based on the occupancy for which such building is designed for (Building Authority of Kenya, 2017).

The organization through its long existence in the construction industry it has marshaled resources in terms of capital and financial, build a reliable material sourcing network, incorporated latest computer aided design (CAD) softwares, and well-coordinated production and installations schedules. The organization has and engages in-house employees who are well trained through acquired on job knowledge and skills over time of engagement within the organization who facilitates execution of their day to day tasks in a prescribed system. The organization has built a good database of all suppliers, the supplies, credit facility period for each supplier, and has in place appealing inventory management systems. The organization unlike other construction have in place functional information technology department in ensuring system and information quality, right end user training, and ensures effectiveness to user. The organization's management practices have made it to dominate the plumbing, drainage and firefighting trade in the construction industry and the same need to be sustained further.

The company executes plumbing, drainage and firefighting installations as a sub-contractor, by entering into subcontract agreement with main contractors. Subcontracting in the construction industry has greatly increased in recent years. In most construction projects, especially building projects, it is common for 80 to 90% of the work to be performed by subcontractors, Subcontracting is used much more extensively on housing and building construction projects than on engineering and industrial projects

(Competition Authority of Kenya, 2017). The Contractor and the nominated sub-contractor shall enter into a sub-contract agreement which provides (inter alia):That the nominated sub-contractor shall observe, perform and comply with all the provisions of contract on the part of the Contractor to be observed, performed and complied with so far as they relate and apply to the sub-contract works or to any , portion of the same, and nominated sub-contractor shall carry out and complete the sub-contract works in every respect to the reasonable satisfaction of the Contractor and of the Architect and in conformity with all the reasonable directions and requirements of the Contractor and the sub-contract works shall be completed within the period therein specified (JBCC, 2020). With this type of contract arrangements main contractor is to provide essential supportive works to services contractors in terms of attendances and builder work in connection to services.

1.1.4. Construction contracts in Kenya

A contract is a legally enforceable promise (Johnson, 2011).When a legally enforceable promise is broken the injured party can seek damages that are the party who breaches the contract must pay the injured party an amount that would make that party whole again. Essentials of construction contracts are quantity, price, and time for performance. In common-law contracts, comprises offer and acceptance.

Plumbing drainage and firefighting installations are specialized and exceptionally crucial services installations in buildings both internally and externally. Contracts related to plumbing, Drainage and firefighting installations ranges from providing portable water to points of use (appliances) from source (NWSC line) within vicinity of the building boundary or other reliable source like boreholes, draining waste and foul water from appliances within the building to public (NWSC line) drainage line within the building boundary, installations of sanitary appliances and fittings where portable water is converted to waste and foul water, and finally installation of both firefighting and protection equipments and fittings to protect the building structure and occupants from possible damage and injury respectively. The scope of Plumbing, Drainage and Firefighting installations may vary from one project to another necessitated by the anticipated end use of the building/structure/facility and life cycle costing of the project. Where in respect of any building, the owner of such building shall provide a Plumbing and drainage installation and ensure that a suitable means of supply of portable water and disposal of water borne sewage are available, also number of sanitary fixtures to be provided in any building shall be based on the occupancy for which such building is designed for (Building Authority of Kenya, 2017). Plumbing contracts offers essential services to the building with which the building is considered habitable confirmed by issuance of occupational certificate upon which occupancy commences. Any building shall be so designed constructed and equipped so that in case of fire The protection of occupants or users therein is ensured and that provision is made for the safe evacuation of such occupants or users (Building Authority of Kenya, 2017); The spread and intensity of such fire within such building and the spread of fire to any other building will be minimized; The generation and spread of smoke will be minimized or controlled to the greatest extent reasonably practicable, and Adequate means of access and equipment for detecting, fighting, controlling and extinguishing such fire are provided.

1.2. Statement of Problem

Highly competitive and intense changes in the construction industry are driving construction managers to improve the performance of their firms (Omopariola, Dele, Ilori, & Windapo, 2019). By considering all of the firm's processes from the procurement of raw materials to the delivery of a final product and/or service, strategic managers can identify discrete activities performed along the way that may add exceptional value to the end product or detract from it (Parnell, 2014). A firm's growth is contingent on its resources and competitive positioning instead of a high growth rate within the industry (Parnell, 2014).The profit that a firm obtains from its resources and capabilities is depended on their ability to establish a competitive advantage, to sustain a competitive advantage and to appropriate the returns to that competitive advantage (Rao, 2015). Try as they might, owners can never be certain that professionals appointed to manage the enterprise in their stead have the owners' best interests at heart (Parnell, 2014). Organization studied proprietors' doubles as top management overseeing day to day activities within the organization, irrespective of their management skills. Companies are facing challenges in procurement due to insufficient finances, quality specifications and timely delivery (Ooko, 2018), also noted that most of the companies are yet to embrace e-procurement due to lack of requisite information system and human capital. According to Audi (2014) procurement staffing level are inadequate for the realization of strategic procurement in the company. As per Kyengo (2012) many organizations over the years have had only the most rudimentary supply chain strategy process in place, indicating that these concepts are either not well understood or difficult to implement. The organization studied portrays notable challenges and inconsistencies in its procurement processes.

On these days, firms are coping with a very competitive, turbulent, and unstable market that stems from prompt technological development, therefore, the manager's focus is on creating a competitive advantage by creating a new way of strategic development, which is appropriate for them and enables a successful adaption to that technological and industrial changes (Islami, Mustafa, & Latkovikj, 2020). Managers look at their technological investments in terms of the cost of new hardware or software, overlooking the costs associated with the non-technical side of information system (Shekhar, 2012). Its further stated that major problem raised by the development of powerful, inexpensive computers involves not only technology but also management and organizations. It's one thing to use information technology to design, produce, deliver and maintain new products, and it's another thing to realize monetary returns, thus organizations need to establish how to obtain a sizeable payoff from their investments in technology, and management to ensure that the available technology contribute to corporate value. Humans should drive the technology, not the other way around, thus main goal is to integrate the technology into the organization staff, and humans do control the technology, and as a manager shouldn't lose sight of that. Evaluation of IT investment is even more complicated for the construction industry because there are no benchmarks to build on or measure from in order to provide meaningful comparisons (Hashima, Saidb, & Idris, 2013). Unfortunately, most IT applications so far have been brought to the industry without proper planning and evaluation (Gaith, Khalim, & Ismail, 2012). Although information systems have provided enormous benefits and efficiencies, they have also created new problems and challenges of which managers should be aware (Shekhar, 2012). This implies that organizations' management's focus must continually change to take advantage of new opportunities and require lots of attention and planning for smooth execution of activities related to modern technological changes. The doubling of computing power every 18 months has made it possible for most organizations to use information systems for their core production processes. As a result, our dependence on systems and our vulnerability to system errors and poor data quality have increased (Kennedy C. Laudon, 2014). Thus, organizations' management evaluate their information systems in terms of service quality, systems and information quality, and user capacity and training so as to capitalize on opportunities brought by technology and strategically mitigate threats therein in ensuring effective performance of the organization.

Currently, firms are losing their energy to find methods that offer them to maintain the existing position in the market, as well as to increase the market share and profit, and so, to survive, to be more profitable, and to increase the market share, firms should create strategies (Islami, Mustafa, & Latkovikj, 2020). Allied Plumbers Limited itself is faced with challenges due to Globalization that has brought about new production technologies, liberation of labour market, vibrant and wide ranges in supply systems, and evolving information systems. There is need for organization to appraise available resource to ensure they are most important in conferring sustainable competitive advantage and where are their strengths and weaknesses as compared to competitors (Rao, 2015).

Organization need to remain flexible so that it does not become committed to products, information system, or market approaches that may become outdated. In a perfect world, organizations commit to predictable, successful courses of action, and strategic change is only incremental (Parnell, 2014). Firms should try to develop strategic flexibility in all areas of their operations, however, those working within firms to develop strategic flexibility should understand that the task is not easy, largely because of inertia that can build up over time and firm's focus and past core competencies may actually slow change and strategic flexibility (Hitt, Ireland, & Hoskisson, 2017). There is an urgent need to evaluate, review and redesign the human resource function so that there is clarity in its strategic intent and shaping it into a 'fit for purpose' organization. (Wairimu, 2014). To be strategically flexible on a continuing basis and to gain the competitive benefits of such flexibility, a firm has to develop the capacity to learn (Hitt, Ireland, & Hoskisson, 2017).

Technology is the most powerful strategic weapon that enables both small and large construction companies to carve out a niche for themselves in global markets (Amiri & Bausman, 2018), and Information systems and IT/IS applications need to be aligned to the business strategy for them to be strategic and address business needs for the future (Madadipouya, 2016). Management's focus must continually change to take advantage of new opportunities and require lots of attention and planning for smooth execution and there is need to capitalize on strategic management practices to strategically mitigate threats therein for effective organizational performance.

1.3. Research Objectives

1.3.1. General objective

To establish relationship between strategic management practices and organizational performance in construction industry in Kenya with focus of Allied Plumbers Limited.

1.3.2 Specific objectives

i. To identify effect of strategic infrastructure management on organizational performance.

ii. To examine influence of strategic human resource management on organizations' performance.
iii. To establish influence of strategic procurement to performance of organizations**.**
iv. To determine ways strategic information system influence organization performance.

1.4 Research Questions

i. To what extent does strategic infrastructure management influence organization performance?
ii. How strategic human resource management influence organization performance?
iii. How strategic procurement contribute to organizational performance?
iv. In what ways does strategic information system influence performance of organizations?

1.5 Significance of study

The study would be important not only to Allied Plumbers Limited management staff but also other management teams in construction organizations in Kenya to the extent of understanding of the challenges and impediments of strategic practices in their organizations and how to mitigate and overcome them.

The study will provide information on the best strategic management practices policies required by management, their influence, and implications on performance and long-term success of the organization placing them on competitive position in the market.

To future researchers and academicians, the study would be important in the suggestion of areas requiring further research to build on the topic of strategic practices among key players (contractors) in the construction industry in Kenyan. In addition, the findings of this study would be important source of reference for future scholars and researchers.

1.6 Scope of Study

This study focused on strategic management practices and organizational performance in the construction industry in Kenya a case of Allied Plumbers Limited. In this case the study collected the required information from the head management office of Allied Plumbers Limited main office and their engaged construction sites in Nairobi County and it is environs, by collecting data from key informants drawn from existing departments' in the organization. The study was carried out from the month of February to October 2020.

1.7 Chapter Summary

This chapter covers introduction, discussed background of the study with biography of company used as case study, construction contracts in Kenya, problem statement, main objective, specific objectives, research questions, significance and scope of the study.

CHAPTER TWO

LITERATURE REVIEW

2.0. Introduction

This chapter covers theoretical framework, empirical framework, summary and gaps to studies, conceptual framework, operationalization of variables and chapter summary.

2.1. Theoretical Literature Review

This study addressed views of various theories that advocate for Strategic practices in an organization that is the Theory of Competitive Advantage theory, Core Competence theory, and Contingency theory.

2.1.1. Competitive Advantage Theory

Competitive advantage theory suggests that states and businesses should pursue policies that create high-quality goods to sell at high prices in the market (Porter, 1985). To compete in any industry the companies must perform a wide array of discrete activities such as processing orders, calling on customers, assembling products and training employees (Porter, 1985). Porter further postulated that Competition is at the core of the success or failure of firms, as it determines the appropriateness of a firm's activities that can contribute to its performance, such as innovations, a cohesive culture, or good implementation. The theory of competitive advantages fulfills the role of a dominant scientific concept explaining differences in results of competing enterprises (Cegliński, 2017). Every company that wants to be competitive must pay proper attention to its competitors, to investigate them, as well as understand the target customers, and in order to gain an advantage over the competition, it is important to present such proposals that fulfill the needs of the target users to a greater extent than the competitor offers (Isoraite, 2017). A key issue for managers is sources, from which advantages of enterprises managed by them result and sources, from which, new competitive advantages may potentially result (Cegliński, 2017). Competitive advantage, anything that a firm does especially well compare to rival firms (David, 2011). Companies must meet new demands to remain competitive, differentiating themselves from competitors by generating higher economic, environmental, and social value (Parida & Wincent, 2019). The competitive advantage theory suggests that states and businesses should pursue policies that create high-quality goods to sell at high prices in the market. Porter emphasizes productivity growth as the focus of national strategies. This theory rests on the notion that cheap labor is ubiquitous, and natural resources are not necessary for a good economy.

A firm can sustain a competitive advantage for only a certain period due to rival firms imitating and undermining that advantage, thus it is not adequate to simply obtain competitive advantage (David, 2011). A firm must strive to achieve sustained competitive advantage by continually adapting to changes in external trends and events and internal capabilities, competencies, and resources; and by effectively formulating, implementing, and evaluating strategies that capitalize upon those factors. A sustained competitive advantage is achieved only when competitors cannot duplicate the benefits of a firm’s strategy or when they lack the resources to attempt imitation (Hitt, Ireland, & Hoskisson, 2017). Sources of advantages as flexibility or dynamic capabilities will have a leading role as well as organizational values and organizational learning, which have an immaterial character, and the turbulence of organizational environment also enhances causal ambiguity between sources of competitive advantages and above-average results of firms’ activities (Cegliński, 2017). Competitive advantage lies 'upstream' of product markets and rests on the firm's idiosyncratic and difficult-to imitate resources (Nyariki, 2013). Knowledge (information, intelligence, and expertise) is the basis of technology and its application. In the competitive landscape of the twenty-first century, knowledge is a critical organizational resource and an increasingly valuable source of competitive advantage (Hitt, Ireland, & Hoskisson, 2017) and a strong knowledge-base is necessary to create innovations. With strategic human resource management in place, it ensures that right and best employees are deployed to oversee key day to day activities within the organization are executed rightly, that is ensuring right infrastructure managements are in place and strategically utilized, effective procurements process and procedures are in place, and effective and right information system is employed to improve efficiency within the organization. With the aforementioned the organization will execute its activities exceptionally well in comparison to rivals hence relevance to competitive advantage theory.

This theory is in support of the study that, with strategic management practices in place more especially strategic human resource management, that involves a future oriented process of developing and implementing human resource programs that addresses and solves business problems, that and directly contributes to major long-term business objectives, in ensuring continuous innovation within the organization.

2.1.2. Core Competency (innovation) theory

Core competency is a specific factor that a business sees as central to the way the company or its employees work (Prahaland & Hamel, 1996). Core competence perspective advocates that only those capabilities representing the ‘collective learning’ of organization, and not discrete assets, are the source of sustainable competitive advantage (Koay, 2011). Core competencies are capabilities that are important for success in employment and in life (International Labour Organization , 2015). Core competencies reflect the collective learning of an organization and involve coordinating diverse production skills and integrating multiple streams of technologies (Kawshala, 2017). Core competencies are Skills and resources that the firm has more abundantly than other firms (Blocher, Stout, & Cokins, 2010). Core competencies are capabilities that serve as a source of competitive advantage for a firm over its rivals. (Hitt, Ireland, & Hoskisson, 2017). Core competence can be defined as "a harmonized combination of multiple resources and skills that distinguish a firm in the marketplace" and therefore are the foundation of companies' competitiveness. Core competencies reflect the collective learning of an organization and involve coordinating diverse production skills and integrating multiple streams of technologies (Kawshala, 2017).

A core competence is a value chain activity that a firm performs especially well (David, 2011). Value chain is useful concept for analyzing a firm’s strengths and weaknesses and understanding how they might translate into competitive advantage or disadvantage, and it also describes the activities that comprise the economic performance and capabilities of the firm (Parnell, 2014). Core competency theory prescribes strengths of organization as have strategic resources, competencies and capabilities. Resources are inputs to the value process, found in the basic activities and processes within a company in which core competencies form a major part (Kawshala, 2017). Competency is assembly of related abilities, commitments, knowledge, and skills that enables organization to act effectively in a situation (Kawshala, 2017). Capability is the capacity for a set of resources to perform a task or an activity in an integrative manner (Hitt, Ireland, & Hoskisson, 2017). Core competencies and capabilities of organization that is strategic human resource management, infrastructure management, procurement and information system play core roles in gaining of competitive advantage which proceeds to growth of organizational performance.

2.1.3. Contingency Theory

The contingency theory emphasizes the importance of both the leader's personality and the situation in which that leader operates (Fiedler, 1964). The contingency theory model states that there is no one best style of leadership, Instead, a leader's effectiveness is based on the situation. Contingency theory is an approach to the study of organizational behavior in which explanations are given as to how contingent factors such as technology, culture and the external environment influence the design and function of organizations (Islam & Hu, 2012). The assumption underlying contingency theory is that no single type of organizational structure is equally applicable to all organizations, rather, organizational effectiveness is dependent on a fit or match between the type of technology, environmental volatility, the size of the organization, the features of the organizational structure and its information system (Islam & Hu, 2012). In organizations, owners of human and physical capital make specific investments to create value with expectations of acceptable share returns. The various organizational factors that influence the adoption of performance management systems in organizations include size, organizational structure, strategy, technology, culture, and leadership, whereas external environment is a significant contextual factor, which includes its degree of predictability or uncertainty, the degree of competition or hostility exhibited, and environmental dynamism or turbulence faced by the organization (Wadongo & Abdel-Kader, 2014). For effectiveness of organization, human resource management must be consistent with other aspects of the organization and or external environment as one-size-fits all approach is inappropriate, as the effectiveness of human resource practices is dependent on the context in which they are applied (Harney, 2016). Thus, this theory is in support of executable action plans by top management on how productivity of organization can be improved and what combination of factors within and outside the organization that will facilitate superior performance.

2.2. Empirical Literature Review

2.2.1. Strategic infrastructure management and organizational performance

On factors influencing completion of construction projects; a case of construction projects in Nairobi Kenya, Munyoki (2014) study explored how project financing and supervision of construction works influence completion of construction project which is termed as discharge of contract by performance. The study found out that project financing (resource) is the heart of a successful project completion, financial issues being timely release of funds, stability of the local currency, cash flow, change in price of materials, access to lending institutions. The study also identified contractors' experience and competence plays key role in supervising and ensuring projects are completed successfully as good supervision will oversee best resource management and manpower deployment, conformance to quality requirements timely deliveries and clear understanding by staff of the expected outcomes. Further the study attested that competent and experienced project managers should be hired to ensure that the right project leadership team is hired to lead a process of construction project implementation, and Contractors should also be vetted before contract award to ensure that they have financial and industry good standing to deliver well on their contract agreements.

According to Nyariki (2013) research on strategic management practices as a competitive tool in enhancing performance of small and medium enterprises in Kenya, the researcher was to establish strategic management practices and their influence on performance of SMEs in Kenya. The study established that external factors contributed to adoption of new strategies, therefore appropriate external environment analysis need to be conducted and continuous review on the environment is conducted. The study further established that internal factors such as internal processes (infrastructure management), top managers‟ ability to develop effective strategies, firm’s resources, organizations behavior, therefore strategic training is required to top management and all employees in the SMEs in order to enhance their performance. The study found out that the various strategies adopted included market strategy, products reputation, customers differentiation, product pricing, cost control, information system, quality of the product, product and service innovations and customer services strategies. Also, it found out that top management need to undertake a comprehensive study and adoption of strategic management in all and every aspect and areas of its concern so as to synergies, restructure, re-engineer and reposition its operations and thus enhancing competitiveness and performance.

On factors influencing completion of construction projects by church organization: case of Anglican Church of Kenya, St. Andrew’s cathedral archdeaconry, Thika, Kiambu County, Maina (2014) investigated the extent at which availability of resources and the influence of competency of staff toward completion of construction projects. The study established that availability of resources ensures timely completion of construction projects, revealing that adequacy of resources are key to timely completion of construction projects together with competent project team. The study also found out that competency influences timely completion of construction projects, implying that the effectiveness of agencies tasked with construction project administration depends to a large extent on the agencies' staff capacity and competency relative to the demands placed upon them.

On Competitive strategies adopted by Chinese firms in the building and construction industry in Kenya, Kalia (2012) delved in establishing the competitive strategies employed by Chinese companies in Kenya. The study found out that Chinese firms in building and construction in Kenya have adopted cost leadership strategy for competing against themselves, and they had also embraced differentiation strategy in their operations. The study further found out that Chinese firms in building and construction industry in Kenya used cost leadership strategy as a competitive strategy since they attempt to reduce their operational costs in order to deliver the product at the lowest prices possible. It was also found out those Chinese firms in building and construction industry in Kenya use differentiation as a competitive strategy since they invest much in product research and strive to deliver high quality products. Chinese firms in building and construction industry in Kenya also used focus as a competitive strategy since they have products for different types of consumers.

As per Muhura (2012) study of organizational capabilities as a source of competitive advantage at Airtel Kenya, the researcher delved on establishing how strategic capabilities have been utilized as a competitive advantage tool by Airtel Kenya. The study found out that Airtel had strategic capabilities that gave it a competitive advantage over the other mobile operators, and these strategic capabilities ranged from strong human resource pool that is well trained, technologically advanced assets and adoption of modern skills. The study further found out that company achieved its strategic capabilities through various techniques which ranged from its employees, technology, market research, innovation and manpower development and talent nurturing. Further found out that infrastructure of the company played a critical role in the company's overall competitive advantage as the strength of the network boost reliability of service use by the customers.

2.2.2. Strategic Human Resource Management and organizational performance

Study by Okweto (2012) on an assessment of the organization structure and leadership effects on construction projects' performance in Kenya: a case study of public building projects within Nairobi region, delved on public sector examining of organization structure for building projects, impact of leadership in building projects performance and identifications of risks that hinder performance of building sub-sector projects. The finding of the study was that public sector responsible for planning and implementations of building projects has obsolete organizational structure with poor leadership skills which contributes to poor performance. And this is a result of project managers being from professional training in Architecture, Engineering and Quantity Surveying but is devoid of leadership and management skills hence lack of experience on human resource management aspects of projects and projects managers have limitations of decision making due to bureaucracy and minimal delegation. The author suggested that construction industry need to invest on strategic leadership, organizational culture and behaviour in project administration.

Research on business strategy, organizational structure, human resource strategic orientation and performance of large private manufacturing firms in Kenya, Ronoh (2013) delved on the effect of business strategy and organizational structure on the relationship between human resource strategic orientation and performance of manufacturing firms in Kenya. The study found that majority of the private manufacturing firms encouraged training and development in managing their human resources function, while at the same time enhancing their corporate strategy. Further found that most of the firms empowered their employees towards improving firm performance and geared their staffing function towards fulfilling the objectives of the firm, firms engaged in human resource strategies that are based on human resource attributes that enhancement of self-managed teams across the organizations, and firms in employed management approaches that were geared towards reducing the status difference in their firms. Ronoh recommendation was that for realization of competitive advantage, organization should always embrace the culture of linking human resource strategic orientation to their business strategy and organizational structure.

On Role of project management skills on performance of construction projects: a case of selected construction firms in Mombasa county, Kenya putting emphasis on project management skills in construction projects that is project planning skills, communication skill, risk management skills, and monitoring and control skills all of which are achieved through backbone strategic human resource management. Nyaga (2014) found out that project planning skills, presence of integrated employee communication programs, availability of risk mitigating skills, and monitoring and control skills had influence performance of construction projects. The researcher concluded that investing in adequate professional and technical skills required in project management is an important foundation for ensuring the success of each project, and firms are to ensure that adequate plans and resources exist to recruit, motivate, train and develop employees in realization of performance.

As per Mbugua (2014) research on Employees’ perception of the influence of human resource management practices on performance of Kengen, the researcher explored on the employee perception of the influence of Human resource management on performance the state corporation. The researcher established that human resource planning influences organization performance in Kengen through well designed organization structure, job designs and human resource plans that ensures the organization is able to meet the staffing requirements, the researcher further noted that comprehensive recruitment and selection policy recruitment and selection in Kengen contributes to providing the appropriate human capital for delivery of organization goals as it always aims at highly skilled employees. The study also revealed that Kengen has in place well elaborate training and development policy, and further established that in every organization, employees are an asset to the organization and as such require be developing and maintaining to ensure continuous productivity. Thus, major human resource management practices in any organization influence the performance outcomes and therefore require to be implemented regularly to ensure they remain relevant to the business.

On relationship between human resources planning, human resource development and performance of construction firms in Nairobi, Kenya, Mose (2011) study examined the relationship between human resource planning and performance of the construction firms in Kenya, and relationship between human resource development and performance of the construction firms in Kenya. On human resource planning the study found out that human resources department had an explicit mission statement and goals, the company had a corporate strategy, effective organizational structure was in place, the company had suitable skilled employees who enhanced reporting, recording, decision making and information flow, further the company evaluated current resources (people skills, interest, abilities and experience) and analyzed internal availability that is demand and supply for current and future, and further established that human resource department had a plan based on strategic needs of the firm. On human resource development the study found out that the company had in place a plan and carried out continuous training (on the job and off the job) and development in to enhance skills, with staff flexibility, recognition of outside environment competition and staff retention as an important aspect of organization growth, and the company rewarded employees accordingly to improve their performance within the projects.

2.2.3. Strategic Procurement and organizational performance

Influence of procurement procedures on construction project performance, a case of power plant construction at Kenya Petroleum Refineries limited, Mombasa, Omondi (2013) explored the influence of procurement procedures on construction project performance. The study found out that several procurement approaches were used in this project instead of using one single procurement approach needs for the whole project, the study further found out that completion time increase by 58.3%, from expected duration as a result of different procurement approaches were engaged. In terms of satisfaction, the client was not satisfied with the cost and time taken but was satisfied with the service and the quality of the project. The study concluded that the project had cost and time variances, which are always found in most of construction project in the world, and recommended that all the personnel involved with projects should be taken for project management and contract management training to enhance their skills on procurements for construction works projects.

According to Kiromo (2015) research on Factors affecting procurement and supply chain performance in building construction firms in Nairobi, the researcher was examining the procurement and supply chain practices employed, and factors affecting procurement and supply chain performance in building construction firms in Nairobi. The study found that procurement and supply chain practices influence organizational performance positively through assurance of improved quality of products and improved ability to meet demand, practicing supplier relationship management, ethical procurement, green supply chain management as well as application of professional ethics in the company. The study further found out that the firms were faced with transportation challenges which as a result of; distance between supplier depots and construction sites and poor road infrastructure management, communication barriers among stakeholders, lack of conflict resolution skills as well as variation control procedures. The study recommended that there was need for preparation of annual procurement plans which should be participatory, and frequently reviewed so as to improve on the construction firm’s performance, further recommended that management of the procurement process need to be administered by qualified, competent and experienced procurement professionals to achieve high levels of efficiency and effectiveness.

Research on Influence of procurement lifecycle on housing construction project performance case study of Nakuru County, Ooko (2018) studied the extent at which supplier evaluation influence housing construction performance. The researcher found out that most of the construction firms face procurement challenges due to insufficient finances to facilitate procurements, compromise of quality due to substandard items, delays in supply/delivery, and influence from political divide. Thus, in resolving the challenges it was proposed that construction companies need to have in place elaborate payment plan for supplies, enlighten key players on the importance of adhering to procurement rules and regulations, and offering of trainings to enrich skills of formulating specifications for products. The researcher further found out that projects characteristics and general external environment influenced completion of the project control regulations in procurement influence completion of construction projects, as regulations ensures good quality of products at right time, and stakeholders are to ensure quality assurance in the procurement process to ensure project viability and completion of construction project within the budget, also the integration of information system with procurement was a big impediment as it was found that majority of the companies had not embraced e-procurement system.

Study by Masiko (2013) on Strategic procurement practices and procurement performance among commercial banks in Kenya**,** the study was to determine the strategic procurement practices used by commercial banks in Kenya; the study was to determine the benefits of strategic procurement practices to commercial banks in Kenya, to establish challenges faced in adoption of strategic procurement practices by Commercial Banks in Kenya; and to establish the relationship between strategic procurement practices and procurement performance among commercial Banks in Kenya. The study found out that commercial banks in Kenya do pay attention to strategic procurement practices, also found out that there was a significant positive relationship between the strategic procurement and the benefits to commercial banks. The study further found out that inadequate training and political meddling were not seen as hindering the successful implementation of strategic procurement. The study also found out that procurement practices influences the procurement performance.

2.2.4. Strategic Information system and organizational performance

Study on influence of project management best practices on organization performance- a survey of Construction companies in Westlands Nairobi, Muhonja (2011) delved on influence of information technology, employee training, monitoring and evaluation techniques, risk management and leadership on performance of construction projects. The study arrived at assertion that use of Technological information systems and tools are key-stone progress all over the world, organization to invest on training of employees for continuous development, use of monitoring and evaluation tools provides most comprehensive guide to measure project performance and progress in ensuring timely delivery of the project. On risk management, mitigating risks ensures safe working environment, profit maximization and organization growth. Also, leadership styles portray the efficiency is a perceived reward, good motivation is critical towards achieving organizational objectives, thus recognition of employees is essential steps to planning of motivational efforts.

On an investigation into the use of construction management softwares: a survey of construction firms in Nairobi, Kenya, Kinuthia (2014) study delved into establishing whether construction firms in Kenya are using construction management software tools to manage their construction projects. The study found out that there was a high rate of adoption of construction management software as a useful tool in the management of construction projects by the Kenyan construction firms, but most of the construction firms did not recognize the value of these other construction management softwares or they are not aware of them and their benefits, of which demonstrates the reluctance to invest in the more extensive and beneficial integrated softwares. The study Also found out that usage of integrated construction management systems amongst the leading construction firms in Kenya was quite low, due to very little effort being made so far towards raising the awareness of local construction firms regarding the existence and benefits of a variety of modem construction management softwares and providing them with adequate information about information system.

The study concluded that construction firms were reluctant to invest in the more extensive and beneficial integrated systems, the most significant benefits of using construction management software to the construction firms were ease of planning construction activities and scheduling labour and equipment with ease, and lack of information about construction management softwares coupled with lack of personnel having adequate working knowledge and familiarity with these softwares were major hindrance to the adoption of construction management software amongst the construction firms. The researcher recommended that there is need to raise awareness of the various players involved in the management of construction projects about the existence and importance of construction industry specific software products that enables them perform better in their work and same can be done by aggressively promoting the adoption and extensive use of these modem construction management software tools by local construction firms through professional forums attended construction managers and professionals could then escalate the knowledge to the top management of the firms where they work.

On Strategic adoption of information communication information system and performance of small and medium enterprises in Nairobi Kenya, Mutunga (2019) explored on determining the influence of information communications Information system on performance of SMEs in Nairobi City County. The researcher found out that ICT selection had empowered organizations to follow representative execution records and cash information, reception of ICT in investigation zones had improved basic leadership that have a ripple effect on whole affiliations in future, and ICT is very much coordinated in the top administration of the enterprises and it has improved their competency that is furnishing top administration with dynamic reports for forecasting future improvement courses, empowered the enterprise in tracking worker execution records and cash information, and has helped enterprise in the investigation territory in picking , engineering and decision making.

On the influence of innovation and technology strategy and competitive advantage of construction companies in Kenya, Mwika (2017) study examined on how innovation and technology as strategy correlate or affect competitive advantage of construction companies in Kenya. The study found out that construction companies have committed good amount of fund in procuring sophisticated technology and modern technology in their establishment to enable them serve their clients with quality products. Further found out that investing in quality technology enhances innovations within the organization. The study further established that through investment in technology and innovation construction companies experienced the benefits through increased turnover and profitability, it also established that cost of advertising and marketing decreased sharply, implying that the cost of operations are minimized with generated revenue increased leading to high profits hence gaining a competitive advantage.

2.3. Summary of Research Gaps

Table 2.1: Summary of research gaps

Author	**Study**	**Research gap (contextual)**	**Focus on current study**
Shammah Kiteme Munyoki (2014)	Factors influencing completion of construction projects; a case of construction projects in Nairobi Kenya	Only studied financing and project supervision in relation to completion of main construction works.	To focus on all valuable indicators of infrastructure management.
Ruth Nyanchoka Nyariki (2013)	Strategic management practices as a competitive tool in enhancing performance of small and medium enterprises in Kenya	Studied organizations from divergent fields hence was not for a particular field of construction.	Specific and particular industry indicators.
Gatugu John Maina (2014)	Factors influencing completion of construction projects by church organization: case of Anglican Church of Kenya, St. Andrew's cathedral Thika, Kiambu County.	Study did not highlight requisite strategic resource and capabilities for implementing construction project.	To address key specific indicators of infrastructure management.
Stella Wairimu Muhura(2012)	Organizational capabilities as a source of competitive advantage at Airtel Kenya	Study majored on telecommunication industry only.	To focus on construction industry
Musembi Amos Kalia (2012)	Competitive strategies adopted by Chinese firms in the building and construction industry in Kenya	Study only on focused well-established foreign construction firms	To focus on local context of construction firms.
Alphonce Nyagilo Okweto (2012)	An assessment of the organization structure and leadership effects on construction projects' performance in Kenya: a case study of public building projects within Nairobi region	Studied Public projects and processes involved therein discussed leaving out private sector.	To identify key indicators of private sector players.

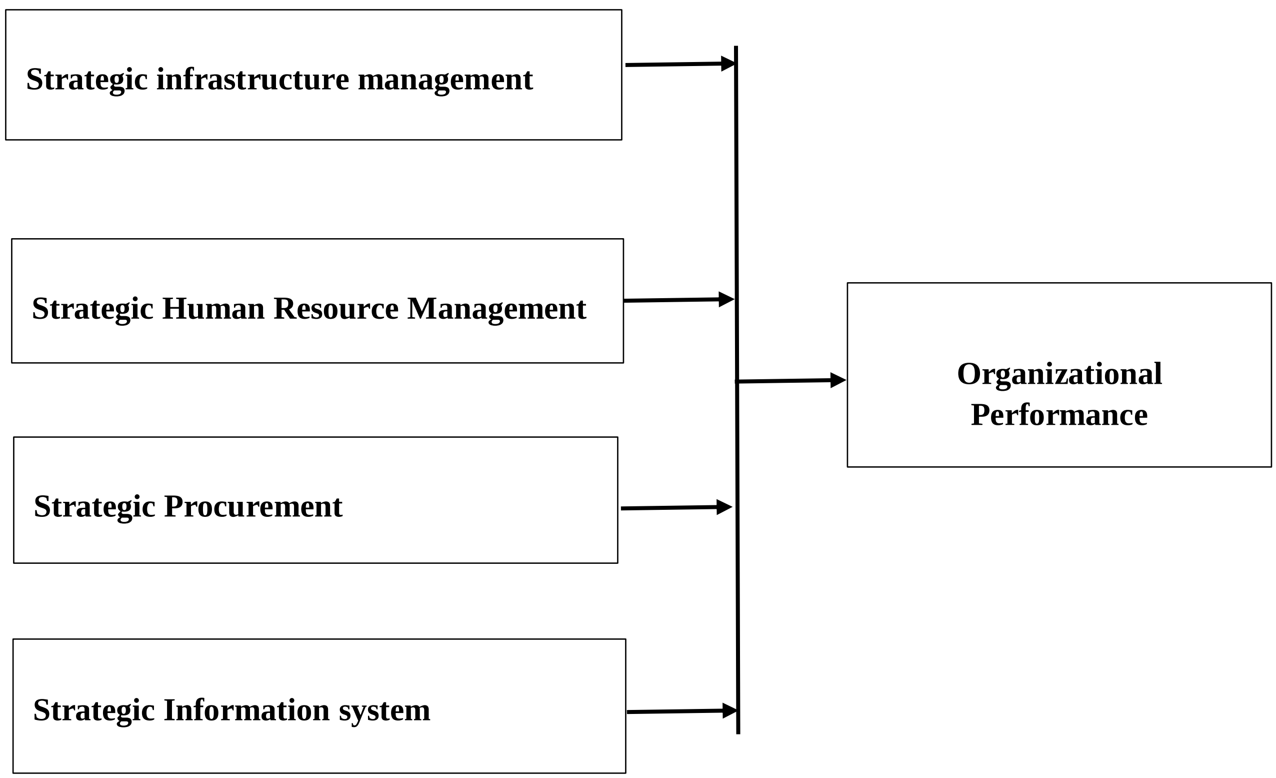
Busienei John Ronoh (2013)	Business strategy, organizational structure, human resource strategic orientation and performance of large private manufacturing firms in Kenya	Findings were only based on employees within specific confined environment.	To focus on both office and construction site employees.
Kenedy Gitonga Nyaga (2014)	Role of project management skills on performance of construction projects: a case of selected construction firms in Mombasa county, Kenya (Nyaga, 2014).	Did not outline firms' commitments on talent management, and integration of human resource information systems.	To focus on key strategic indicators of human resources management
Mbugua, Jennifer Njeri (2014)	Employees' perception of the influence of human resource management practices on performance of Kengen	Did not cover practices of private entities of which are key players in the construction contracts.	To focus on private sector practices.
Thomas Chuma Ogari Mose (2011)	Relationship between human resources planning, human resource development and performance of construction firms in Nairobi, Kenya	Did not discuss on matters relating to succession planning hence smooth transition is not guaranteed	To focus on succession planning.
Oloo Amos Omondi (2013)	Influence of procurement procedures on construction project performance, a case of power plant construction at Kenya Petroleum Refineries limited, Mombasa	Discussed matters only relating to staff involved in procurement leaving out strategic information system and organization infrastructure management.	To focus on all departments in the construction company
Eunice Muthoni Kiromo (2015)	Factors affecting procurement and supply chain performance in building construction firms in Nairobi	No framework prescribed for improving deficiency in procurements in firms.	To recommend appropriate framework.

Akinyi Dorine Ooko (2018)	Influence of procurement lifecycle on housing construction project performance case study of Nakuru County	Did not discuss attributes of procurement matters and activities of buildings contractors.	To focus on recommending best attributes.
Daniel Maroa Masiko (2013)	Strategic procurement practices and procurement performance among commercial banks in Kenya	The study delved on only procurement performance leaving rather than the whole performance of the organization.	To focus on overall organizational performance
Alex Waiharo Kinuthia (2014)	An investigation into the use of construction management softwares: a survey of construction firms in Nairobi, Kenya	Not elaborate on integration of information systems within construction firms.	To focus on role of top management in information system integration.
Musinya Noreen Muhonja (2011)	Influence of project management best practices on organization performance- a survey of Construction companies in Westlands, Nairobi.	Only concentrated on main construction companies of class A and B (NCA 1 and 2).	To focus on sub-contractor issues.
Franciscan Mutunga, (2019)	Strategic adoption of information communication Information system and performance of small and medium enterprises in Nairobi Kenya	Not indicating involvement and trainings of employees on ICT, and based findings on data collected from top administrators.	To focus on end-user training and user experience.
Muthuiya Martin Mwika (2017)	Influence of innovation and technology strategy and competitive advantage of construction companies in Kenya	Delved mostly on the outcomes of sophisticated technology, leaving out user efficacy	To focus on end user usefulness.

2.4.Conceptual Framework

Conceptual framework demonstrates the relationship between strategic management practices and organizational performance. In this study the depended variable is organizational performance while independent variables are strategic infrastructure management, human resource management, procurement, and information systems.

Figure 2.2. Conceptual framework



2.5. Operationalization of Variables

Operationalization of variables demonstrates the study objectives, variables with the study indicators, their measurement scale, and tools of analysis in establishing the relationship between strategic management practices and organizational performance.

Table 2.2 Operationalization of variables

Research objective	Type of Variable	Indicators	Measurement scale	Tools of analysis
Identify importance of strategic Infrastructure management on organizational performance	independent	Facility planning and management. Financial Resource capability. Access to raw materials. Capital resource. Appropriate Technology	Nominal	Regression analysis
Examine influence Strategic Human Resource Management on organizations' performance	independent	Recruitment and retention. Talent management. Training and development. Employee engagement. Succession planning.	Nominal	Regression analysis
Establish Strategic Procurement contribution to performance of organizations	independent	Identification and selection of suppliers. Delegation of procurement authority. Negotiation and contract management. Supply chain relationships. Inventory management.	Nominal	Regression analysis

Determine Strategic Information system contribution to performance organizations	independent	System and information Quality. Service Quality. Top management support End-user training. Computer Self-Efficacy and user experience.	Nominal	Regression analysis
Organizational Performance	Dependent	Timely project completion Projects executed on budget Profitability Competitive advantage	Nominal	Descriptive

2.6. Chapter Summary

This chapter covers of the theoretical framework under which the study was anchored, that is competitive advantage, core competence and contingency theories, empirical literature related to strategic management practices variables on performance to construction organizations as insinuated by cited studies with summary of the study gaps. The chapter further discusses conceptual framework and operationalization of variables with their indicators and measurements.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0. Introduction

This section covers research, research design, target population, sample and sampling technique, instruments, pilot study, data collection and procedure, data analysis and presentation, ethical consideration, and chapter summary.

3.1. Research design

A research design is a procedural plan that is adopted by the researcher to answer questions validly, objectively, accurately and economically (Kumar, 2011). For the purposes of this study, the researcher employed descriptive research design. Descriptive research design attempts to describe systematically a situation, problem, phenomenon, service or programme, or provides information about, say, the living conditions of a community, or describes attitudes towards an issue (Kumar, 2011).

Descriptive research design was appropriate for this study since the researcher intended to establish whether current characteristics in an organization influences its performance that is; - strategic infrastructure management, strategic human resource management, procurement and information system affect performance of organization. The dependent variable for this study will be performance while the independent variables were strategic infrastructure management, strategic human resource management, and procurement and information system.

3.2. Target Population

The target populations for the study were employees at Allied Plumbers Limited who understands components of strategic management practices in the following departments' planning and finance, human resource and administrations, procurement, engineering and design, tendering and contracts, site and construction among others in Nairobi, Kenya.

Table 3.1: Target Population

Department	Number of Employees	Percentage (%)
Planning and Finance	9	17
Human resource and Administration	10	19
Procurement	10	19
Engineering and Operations	7	13
Tendering and Contracts	4	8
Site and Construction (site managers and foremen)	13	24
TOTAL	**53**	**100**

Source: Allied Plumbers Ltd.

3.3. Sample and Sampling technique

Sample is subset of the population that is studied in a research project (Beins & McCarthy, 2012). The study used stratified sampling technique to select the sample. A sample of respondents will be drawn from planning and finance, human resource and administrations, procurement, engineering and design, tendering and contracts, site and construction departments of Allied Plumbers Ltd in Nairobi Kenya. The study used Yamane's (1967) formula for calculating sample size to come up with sample.

$n=N/[1+N(e^2)]$

Where, N is the population size, e is the level of precision (±5%), considering 95% confidence level and maximum variability of 50%

$n=53/ [1+53(0.07)^2]$

n= 46.80, say sample size of 47 respondents.

Table 3.2: Sample size

Department	Number of Employees	Percentage (%)
Planning and Finance	8	17
Human resource and Administration	9	19
Procurement	9	19
Engineering and Operations	6	13
Tendering and Contracts	3	6
Site and Construction (site managers and foremen)	13	26
TOTAL	**47**	**100**

Source: Allied Plumbers Ltd.

3.4. Instruments

Instrument is anything that becomes a means of collecting data for a study (Kumar, 2011) the data collection instrument for this study was a questionnaire; In this case the study used questionnaire as instrument for collecting data. The questionnaire was structured questions in two sections, section one having general questions on background of the respondents and section two questions on the objectives of study variables.

3.5. Pilot study

Pilot testing involves conducting a preliminary test of data collection tools and procedures to identify and eliminate problems, allowing programs to make corrective changes or adjustments before actually collecting data from the target population. (Murthy & Bhojanna, 2012) Pilot study was conducted by the researcher at Allied Plumbers limited head office staff (5 employees) in Nairobi, in order to identify, and make corrective changes to the questionnaire on items that might have been ambiguous to targeted respondents.

3.5.1. Validity

Validity refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure (Bhattacherjee, 2012). Validity is the degree to which results obtained from the analysis of the data actually represents the variables of the study, and the research instrument was validated by experts in the organization and research supervisor, and the instrument was corrected in accordance to their inputs and adopted.

3.5.2. Reliability test

Reliability is the degree to which the measure of a construct is consistent or dependable (Bhattacherjee, 2012), and it is the degree to which a research instrument yields consistent results or data after repeated trials. The researcher measured reliability of the questionnaire to determine its consistency in testing the study variables by using test re-test reliability technique by administering the questionnaire to pilot study respondents twice in a span of two weeks to ascertain and estimate reliability of the instrument. The test re-tests yielded 99.0% consistence of the results.

3.6. Data Collection and Procedure

Prior to the commencement of data collection, the researcher obtained all the necessary documents, including an introduction letter from the University and a research permit was obtained from the National Commission for Science, Information System and Innovation (NACOSTI). Clearance was sought by the researcher from Allied Plumbers limited management to collect data from sampled respondents in the organization for the purpose of the study. Upon getting clearance, the researcher distributed the questionnaires to the sampled respondents by electronic mail due to current pandemic of Covid-19 that has brought about social distancing restricting direct contact restriction by the government of Kenya through Ministry of Health. The researcher used questionnaire with structured questions in collecting data to allow respondents to respond to specific questions with prescribed options. Data was collected using self-administered questionnaires which was emailed in a compatible format for easy opening and filling of the same, with the same mail the researcher requested the responded to email back filled questionnaires within seven days.

3.7. Data Analysis and Presentation

The data analysis involved a number of closely related operations which were performed with the purpose of summarizing the collected data and organizing these in such a manner that they answered the research questions. Before processing the responses, the completed questionnaires were edited and tabulated to ensure explanatory and descriptive statements were minimized, facilitation of process comparison, summations of items and detection of errors and omissions, and to provide basis for statistical computations. Data was analyzed by the use of descriptive statistics using statistical package for social sciences (SPSS) use multivariate regression model to study the relationship between organizational strategic infrastructure management, human resource management, Procurement and Information system on Organization performance.

The multi regression model was as follows:

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

Where: Y = Organizational Performance;

β_0 = Constant Term; β_1, β_2, β_3 and β_4 = Beta

coefficients; X_1= Strategic Infrastructure management;

X_2= Strategic Human Resource management;

X_3= Strategic procurement;

X_4= Strategic Information system;

ε = Error term

Analyzed data is presented by use of tables, bar charts and pie charts.

3.8. Ethical consideration

The study collected sensitive information; therefore, the researcher had a moral obligation to treat the information with utmost modesty. The researcher affirmed the respondents on confidentiality of the information given to ensure that the respondents were not be reluctant to give the information as sought by the study.

3.8.1. Informed Consent

The researcher provided respondents with sufficient and detailed information and purpose of the study so that they can make an informed, voluntary and rational decision to participate.

3.8.2. Voluntary Participation

The researcher prepared responded by emailing them research documents requirements and informing them what was to be done**,** their role in the research being conducted and what is the purpose and confidentiality of data that was collected.

3.8.3. Confidentiality

The researcher affirmed the respondents on confidentiality of the information given to ensure that the respondents were not reluctant to give the information as sought by the study.

3.8.4. Privacy

The researcher affirmed respondents that their privacy was upheld by ensuring their data is not disclosed to anybody.

3.8.5. Anonymity

The researcher ensured identities of all respondents are kept secret.

3.9. Chapter Summary

Chapter three provides research methodology which outlines the research design used, targeted population for the study and sampling technique, data collection instruments and procedures, method of data analysis and presentation; chapters further discusses validity test and reliability of research instrument and ethical issues.

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0. Introduction

The purpose of the study was to establish importance of strategic management practices on performance of construction in the industry in Kenya. The study investigated the influence of strategic infrastructure management, human resource management, procurement, and information system on performance of the construction industry in Kenya.

4.1. Presentation and Research Findings

4.1.1. Response Rate

The target population was 53 employees of Allied Plumbers limited drawn from six departments of the organization. A sample size of 47 respondents was used whereby only 32 filled and returned questionnaires; to this end a 68.09% was attained. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. It therefore established that the study registered a good response rate. The findings are as presented in Table 4.1

Table 4.1: Response rate

Questionnaires	Frequency	Percentage -%
Returned	32	68.09
Unreturned	15	31.91
Distributed	**47**	**100**

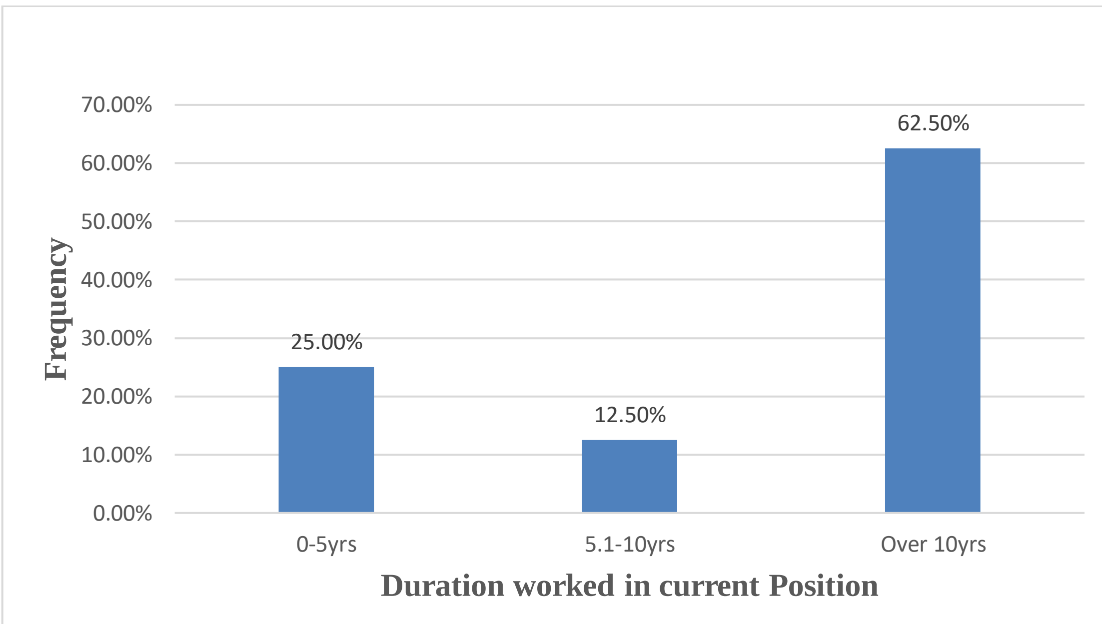
4.1.2. Demographic information

Respondents were required to indicate their responses on various demographic aspects ranging from: duration of work, gender, department age, and education level. The study findings are presented in the following sub sections.

4.1.2.1. Duration spent working in current position

The figure 4.1 shows duration working in the current department

Figure 4.1: Duration worked in current position



The findings show 20 participants have worked for a period of over 10 years in their current position. 8 participants showed that they have worked for a period of between 0-5 years in their current position. 4 participants indicated that they have worked for a period of between 5.1-10 years. These statistics is as shown in figure 4.1 above. With most respondents (62.5%) having worked in the organization for over 10 years it is evident that responses are fully privy to management practices and day to day execution of activities within the organization.

4.1.2.2. Gender of respondent

Table 4.2: Gender of Respondents

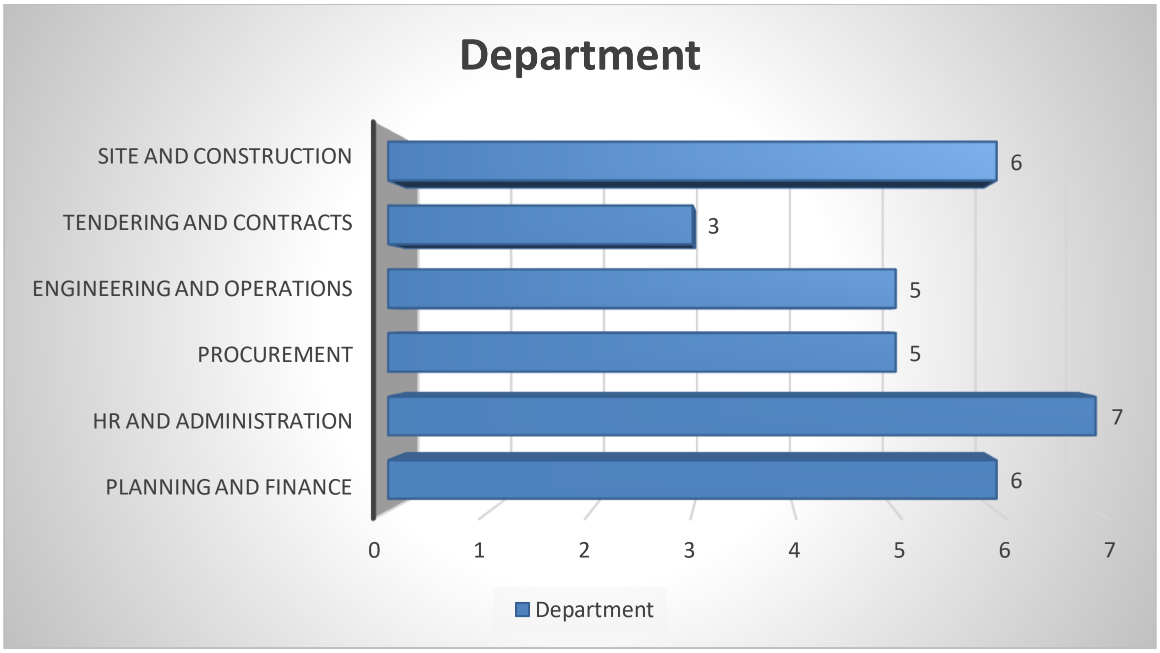
Gender	Response rate
Male	62.50%
Female	37.50%
Total	**100.00%**

The statistics on gender of respondents showed that 20 participants (representing 62.5%, N=32) were male while 12 were female (representing 37.5%, N=32), as presented in table 4.2 above.

4.1.2.3. Participants' Department

The statistics on the participants department shows that the 7 of the 32 participants who participated in the study were in the human resource and Administration department, 6 participants worked in the Site and Construction department. 3 participants worked in the Tendering and contracts while 5 participants worked in the Engineering and operations department. Another 5 participants who participated in the study worked in the procurement department. 6 participants worked in the planning and finance department. This is shown in figure 4.2 below.

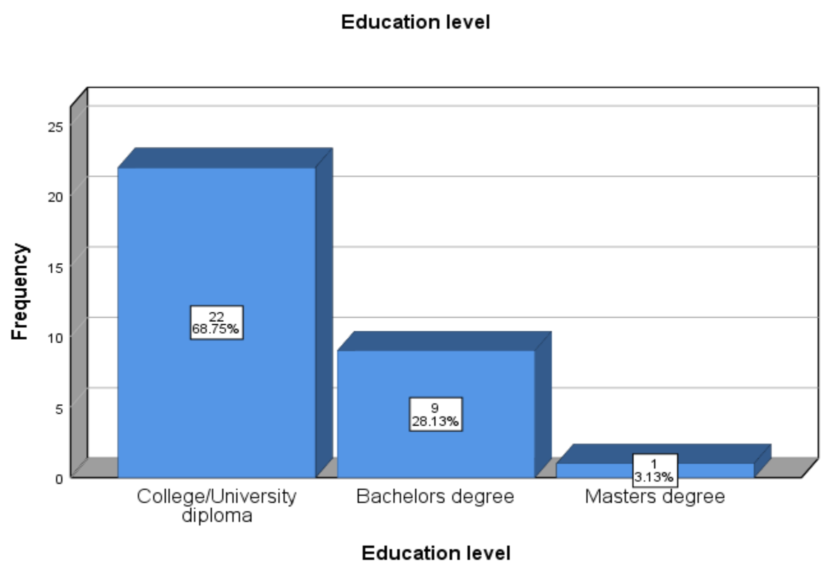
Figure 4.2: Respondents Department



4.1.2.4. Educational level

From the results, the statistics showed that the majority respondents had a college/university diploma. 9 participants had a bachelors' degree while only 1 participant had a master's degree. This information is shown in figure 4.3 below

Figure 4.3: Respondents' Education Level



4.1.3. Organizational Performance

The study sought to establish rating of the actual performance of the organization on their construction projects for the past three years, findings are as table 4.3 below.

Table 4.3: Performance of organization in the past three years

STATEMENT	SD	D	N	A	SA	Mean	SD
Timely project completion (projects completed as scheduled or as per program of works)	0%	6.30%	53.10%	31.30%	9.40%	**3.44**	**0.759**
Projects executed on Budgets (No realized cost fluctuations)	0%	12.50%	59.40%	21.90%	6.30%	**3.22**	**0.751**
Profitability (projects' ability to produce a return on an investment based on assigned resources)	0%	15.60%	65.60%	15.60%	3.10%	**3.06**	**0.669**
Competitive advantage (organization executes more projects with superior profit margins as compared to other rivals in construction industry).	3.10%	25.00%	65.60%	6.30%	3.10%	**2.75**	**0.622**
Average Mean						**3.12**	

From table 4.3 above the findings give an indication that the organization is performing well in terms of timely completion of projects, projects execution on budget and profit realization, but slightly above average on competitive advantage.

4.1.4. Objective 1: How strategic infrastructure management contributes to organization performance

The study sought to establish how in agreement were the respondents to strategic infrastructure management processes were in the organization, findings are as table 4.4 below.

Table 4.4: Strategic infrastructure management on Organizational performance

STATEMENT	SD	D	N	A	SA	Mean	SD
Facility planning and management	0%	0%	31.30%	50.00%	18.80%	**3.88**	**0.71**
Financial Resource capability.	0%	0%	3.10%	50.00%	46.90%	**4.44**	**0.56**
Access to raw materials	0%	0%	3.10%	78.10%	18.80%	**4.16**	**0.45**
Capital resource	0%	0%	0%	59.40%	40.60%	**4.41**	**0.5**
Appropriate information system	0%	3.10%	6.30%	62.50%	28.10%	**4.16**	**0.68**
Average Mean						**4.21**	

Correlation: Strategic infrastructure management versus organization performance

The Karl Pearson's product-moment correlation was used to analyze the association between the independent and the dependent variables. The Pearson product-moment correlation coefficient (or Pearson correlation coefficient) is a measure of the strength of a linear association between two variables and is denoted by r. The Pearson correlation coefficient, r, can take a range of values from +1 to -1. A value of 0 indicates that there is no association between the two variables. A value greater than 0 indicates a positive association, that is, as the value of one variable increase so does the value of the other variable. A value less than 0 indicates a negative association, that is, as the value of one variable increases the value of the other variable decreases. Pearson's Correlation Coefficient was carried out and the results obtained are presented in table 4.5 below.

Table 4.5: SIM versus organization performance

Correlations

		Strategic Infrastructure	Organizational Performance
Strategic Infrastructure	Pearson Correlation	1	.330
	Sig. (2-tailed)		.870
	N	32	32
Organizational Performance	Pearson Correlation	.330	1
	Sig. (2-tailed)	.0001	
	N	32	32

The study findings in the table 4.5 shows a significant strong positive correlation between the strategic infrastructure management and organizational performance (Pearson correlation coefficient, r = 0. 330).

Regression Analysis

Model summary below shows that the coefficient of determination also called the R square is 28.1%. This means that the combined effect of the predictor variables (Strategic infrastructure management) explains approximately 28.1% of the variations in organizational performance. The correlation coefficient of 53.0% indicates that the combined effect of the predictor variables has a relatively strong and positive correlation on organizational performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.530[a]	.281	.247	.54741

a. Predictors: (Constant), Strategic Infrastructure

4.1.5. Objective 2: Strategic human resource management influence of organization performance.

The study sought to examine level of satisfaction of the respondents with strategic human resource management practices in the organization; findings are as table 4.5 below.

Table 4.6: Strategic human resource management responses

STATEMENT	NS	SS	MS	VS	CS	Mean	SD
Recruitment and retention.	0%	12.50%	37.50%	46.90%	3.10%	**3.41**	**0.76**
Talent Management:	12.50%	43.80%	37.50%	3.10%	0%	**2.32**	**0.75**
Training and Development.	31.30%	40.60%	25.00%	3.10%	0%	**2.00**	**0.84**
Employee Engagement.	21.90%	40.60%	34.40%	3.10%	0%	**2.19**	**0.82**
Succession planning	34.40%	46.90%	15.60%	3.10%	0%	**1.88**	**0.79**
Average Mean						**2.36**	

Correlation: Strategic human resource management versus organization performance

Correlation

From the Pearson correlation analysis, the results showed that there exists a strong positive correlation between strategic human resource management versus organization performance (Pearson correlation coefficient, r = 0. 438).

Table 4.7: Correlation: SHRM versus organization performance.

		Organizational Performance	Strategic Human Resource Management
Organizational Performance	Pearson Correlation	1	.438
	Sig. (2-tailed)		.839
	N	32	32
Strategic Human Resource Management	Pearson Correlation	.438	1
	Sig. (2-tailed)	.0081	
	N	32	32

Regression Analysis

The table in the model summary below shows the coefficient of determination also called the R square is 19.2%. This means that the combined effect of the predictor variables (Strategic human resource management) foregrounds approximately 19.2% of the variations in organizational performance. The correlation coefficient of 43.8% shows that the combined effect of the predictor variables has a relatively strong and positive influence on organizational performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.438[a]	.192	.168	.55606

a. Predictors: (Constant), Strategic human resource management

4.1.6. Objective 3: Strategic procurement contributes to organizational performance

The study sought to establish the frequency of strategic procurement practices in the organization; findings are as table 4.6 below.

Table 4.8: Strategic procurement responses

STATEMENT	N	R	S	O	A	Mean	SD
Identification and selection of suppliers.	3.10%	0%	21.90%	40.60%	34.40%	**4.03**	**0.93**
Delegation of procurement authority	9.40%	25.00%	46.90%	18.80%	0.00%	**2.75**	**0.88**
Negotiation and contract management	3.10%	0%	21.90%	31.30%	43.80%	**4.13**	**0.98**
Supply chain relationships	0%	3.10%	21.90%	43.80%	31.30%	**4.03**	**0.82**
Inventory management	0%	0%	18.80%	56.30%	25.00%	**4.06**	**0.67**
Average Mean						**3.8**	

Correlation: Strategic procurement versus organizational performance

Table 4.9: Correlation SP versus organizational performance

Correlations

		Organizational Performance	Strategic Procurement
Organizational Performance	Pearson Correlation	1	.480
	Sig. (2-tailed)		.323
	N	32	32
Strategic Procurement	Pearson Correlation	.480	1
	Sig. (2-tailed)	.0081	
	N	32	32

The correlation coefficients above show a significant strong positive correlation between the strategic procurement versus organizational performance (Pearson correlation coefficient, r = 0. 480).

Regression analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.380[a]	.144	.126	.53867

a. Predictors: (Constant), Strategic Procurement

From the regression analysis above, the coefficient of determination (R square) is 14.4%. This means that the combined effect of the predictor variables (Strategic infrastructure management) puts into context approximately 14.4% of the various fluctuations in the performance of organization. The correlation coefficient of 38.0% contextualizes that the combined effect of the predictor variables has a relatively strong and positive correlation on organizational performance.

4.1.7. Objective 4: Strategic information system roles impact performance of organizations

The study sought to determine how in agreement were the respondents with the presence of strategic information systems in the organization; findings are as table 4.7 below.

Table 4.10: Strategic information system responses

STATEMENT	SD	D	N	A	SA	Mean	SD
System and information Quality	0%	0%	12.50%	56.30%	31.30%	**4.19**	**0.64**
Service Quality	0%	0%	12.50%	75.00%	12.50%	**4.00**	**0.51**
Top management support	0%	0%	31.30%	59.40%	9.40%	**3.78**	**0.61**
End-user training	0%	6.30%	43.80%	43.80%	3.10%	**3.45**	**0.68**
Computer Self-Efficacy and Experience	0%	0%	18.80%	56.30%	25.00%	**4.06**	**0.67**
Average Mean						**3.9**	

Correlation: Strategic information system roles versus performance of organizations

Table 4.11: Correlation SIS versus performance of organizations

Correlations

		Organizational Performance	Strategic Information system
Organizational Performance	Pearson Correlation	1	.658**
	Sig. (2-tailed)		.000
	N	32	32
Strategic Information system	Pearson Correlation	.658**	1
	Sig. (2-tailed)	.0040	
	N	32	32

Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.658[a]	.433	.381	.41617

a. Predictors: (Constant), Strategic Information system

The regression table above focuses on the coefficient of determination. Otherwise also called the R square at 43.3%. In other words, the combined effect of the predictor variables (Strategic infrastructure management) puts into focus close to 43.3% of the variations in organizational performance. The correlation coefficient of 65.8% indicates that the combined effect of the predictor variables has a relatively strong and positive correlation on organizational performance.

Coefficients of regression

Table 4.12: Regressions Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
Constant	2.1848	0.1458	2.1560	14.9856	0.0000
Strategic infrastructure management	0.1263	0.0270	0.2364	4.6779	0.0001
Strategic Human Resource Management	0.1311	0.0452	-0.1256	-2.8984	0.0081
Strategic Procurement	0.1671	0.0452	-0.1214	4.1466	0.0081
Strategic Information system	0.1077	0.0337	0.0345	3.1997	0.0040

As per generated results in table 4.7 above, the equation ($Y = \beta 0 + \beta 1X_1 + \beta 2X_2 + \beta 3X_3 + \beta 4X_4 + \varepsilon$) becomes $Y=2.1848+0.1263X_1+0.1311X_2+ 0.1671X_3+0.1077X_4$. This regression equation shows that taking all factors into account (strategic infrastructure management, human resource management, procurement, and information system) at constant zero then the performance of the company increases at a rate of at a rate of 2.1848. Results indicate that unit increase in infrastructure management leads to 0.1263 increase in performance, unit increase in strategic human resource management leads to 0.1311 in performance, unit increase in strategic procurement leads to 0.1671 increases in performance, and unit increase in strategic information system leads to 0.1077 increase in performance. At 5% level of significance and 95% level of confidence strategic management practices are significant in explaining the relationship between the depended and independent variables since its level of significance is below base significance level of 0.05.

4.2. Limitations of the Study

The findings of this study have to be seen in light of some limitations. Firstly, the study faced the problem of having limited access to these respondents due to Covid-19 pandemic repercussions, with use of email communication as only means of reaching out respondents hence some questionnaires did not reach the intended respondents as the mails bounced back and no alternative e mails addresses were provided. Secondly time constraints negatively impacted the study as not all respondents returned questionnaires, and on the returned questionnaires the researcher was unable to authenticate responses from participants. There were difficulties of some respondents interpreting some indicators of the study variables.

4.3. Chapter Summary

The chapter has covered questionnaire response rate, demographic information of respondents (duration spent working in current position, gender, department and educational level), tabulated organization performance indicators, tabulated analysis of study objectives with their indicators, analysis and representation of data, correlation of objectives versus organizational performance, regression analysis, and limitations of the study.

CHAPTER FIVE

SUMMARY RECOMMENDATIONS AND CONCLUSIONS

5.0. Introduction

This study sought to find how strategic management practices influence performance of organization focus being Allied Plumbers limited. The study was carried out with sample population from the organization departments, and out of which the study arrived at findings, conclusion, and recommendations.

5.1. Summary of Findings

The main objective of the study was to establish influence of strategic management practices and organizational performance of construction industry in Kenya. The findings are highlighted in the following subsections:

On duration worked in the same department 25% have worked 5 years and less, 12.5% have worked 5 to 10 years, and 62.5% have worked over 10 years; implying that the collected data is reliable as majority of the respondents are acquainted with operations and practices within the organization. On gender 62.5% were male and 37.5% were female implying that the organization complies with the Kenyan constitution on gender rule on no gender should be below a third of the total number of employees, the same implies that the organization is sensitive to gender when carrying out recruitment. On education level 68.75% were college/university diploma holders, 28.13% were bachelor degree holders, and 3.13% master degree holder; implying that the respondents were conversant with strategic management practices.

On organizational performance in the past three years with a mean of 3.12 out of expected five outcomes, indicates a moderate performance in terms of timely project completion that is projects being completed as scheduled or as per program of works; projects executed on budgets with no realized cost fluctuations; profitability that is projects' having ability to produce a return on an investment based on assigned resources; and gaining a competitive advantage that is execution of more projects with superior profit margins as compared to other rivals in construction industry. From the analysis the studies found out that majority of the respondents gave a neutral response, implying that organization is performing moderately in the construction industry.

5.1.1 Strategic infrastructure management and organizational performance

On strategic infrastructure management contribute to organization performance? From the findings, with a correlation coefficient of 53.0% it is an indicator that performance of the organization is strongly supported by excellent Facility planning and management that is organization has in place efficient and effective organization layouts and flow of activities, and coordination of production process with available resources and capabilities; financial resource capability that is having access to strategic finance and credit facilities; easy aaccess to appropriate raw materials; Capital resource, organization owns or can easily hire requisite plants and equipments; and appropriate information technology in its production and services process. These finding concur that there is in place appropriate and latest technology that enhances processes and innovations within the organization and with enhanced process and innovations cost of production is drastically reduced leading to profitability.

The study concurs with Nyariki (2013) in a study on strategic management practices as a competitive tool in enhancing performance of small and medium enterprises in Kenya, the study found out that internal factors such as internal processes (infrastructure management) enhances performance. This study was also supported by Muhura (2012) study on organizational capabilities as a source of competitive advantage at Airtel Kenya, which found out that infrastructure of the company played a critical role in the company's overall competitive advantage. This study is also supported by Bhatti, Awan, and Razaq (2014) in a study examining the key performance indicators (KPIs) and how they influence organizational performance, the study found out that many organizations stress on the customer satisfaction as key triggers of performance, this is pegged on the fact that increased customer satisfaction raises the performance levels through the financial lens through fashioning customer loyalty, minimizing transaction expenditures, as well as raising the reputations of these organizations.

However, these findings of this study sharply contrast a study by Nusair and Osman (2016) where it was established that within SMEs, strategic planning has no effect on their overall performance. In addition, studies by Hoogstra-Klein and Burger (2013) examining how strategic planning influences organizations within the Dutch contexts as well as a study by Saleh et al., (2013) delving on how strategic planning impacts financial performance intimated that the concept of strategic planning has no direct effect on overall organizational performance. Relatedly, most researchers holding this view argued that this ambiguous relationship between strategic planning and/or management and organizational performance was pegged on the unpalatable sustainability of strategic planning and within unstable contexts (Nusair & Osman, 2016).

5.1.2 Strategic human resource management and organizational performance

On strategic human resource management influence on organizational performance, with a positive correlation coefficient 43.8% strongly indicates that strategic human resource management plays a pivotal role in organizational performances that is Recruitment and retention are linked to goals and objectives and its commitment to retain performers; talent management commitment to support on function of nurturing and delivering the best employees; training and development that is having in place programs to help employ acquire specific knowledge and skills in current roles, with focus on employee growth and future performance; Employee engagement that is management's commitment on consultations with employees prior to decision making; Succession planning , organization's commitment to ensure efficient and effective transition in event of resignation and retirement. As per the findings on talent management, training and development, employee engagement, and succession planning it is evident that the organization is doing poorly in terms of human resource management policy, and this supports the statement.

The findings concur with Ronoh (2013) study on business strategy, organizational structure, human resource strategic orientation and performance of large private manufacturing firms in Kenya, the study found that for realization of competitive advantage, organization should always embrace the culture of linking human resource strategic orientation to their business strategy and organizational structure. "There are a number of obstacles for family firms to grow and survive in the long term, these demands include normal business challenges such as being part of a business lifecycle, intensifying competition, and new technologies, risk aversion due to high levels of ownership concentration and intentions to maintain family control which influences decisions to take on growth opportunities (Ungerer & Mienie, 2018), and try as they might, owners can never be certain that professionals appointed to manage the enterprise in their stead have the owners' best interests at heart (Parnell, 2014).'' This study foregrounds the salience of both vertical and horizontal organizational structures. Here, organizations that align themselves vertically and also integrate human resources and their practices horizontally eventually achieve greater success and also have satisfied and prudent human resource staff who show improved works output.

The findings further concur with study by Green, Wu, Whitten and Medlin (2011) on the implications of human resource on the performance of firms as well as human resource experts work and attitudes and their performance at work, established that strategic human resource management as well as their related antecedents have a significant positive influence on organization performance and the work-related attitudes and he performance of human resource experts. Additionally, organizations strive to fashion competitive strategies in the market by micro-managing their human resources to ensure they achieve the required organizational performance, the findings are supported by Cania (2014) study that postulated that human resource management is key in ensuring organizational performance, some of the benefits being reduction of expenses, achieving entrepreneurial goals, maximizing customer base, increasing market share, raising product quality among others. By employing SEM techniques in data analysis, Hamadamin and Atan (2019) study on the effects of human resources practices on the performance of organizations and competitive advantage and established that the success of organizations is dependent on strategic human resource management practiced through the development of human capital pegged on salient values within the organization hence supports this study.

5.1.3 Strategic procurement and organizational performance

On strategic procurement contribution to organizational performance the study sought to find how frequent the organization carry out strategic procurement process. With a positive correlation coeffient of 38.0% it indicates that the organization is frequently practicing strategic procurement processes that is**;** Organization's has in place procurement systems that ensures there is strategic identification and selection of suppliers prior to purchasing, engagement in procurement negotiation prior to procurement and contract management, retaining good supply chain relationships with suppliers and other parties in in procurement chain, and inventory management with requisite requisition and ordering tracking systems in place, but does not faring well on delegation of procurement authority and activities to knowledgeable and skilled employees**.**

From the findings the study contented that most the respondent were in agreement with predictors of strategic procurement hence a positive correlation with organizational performance. This assertion is supported by another study by Mungai (2019) in a research on Effect of Strategic Procurement Practices on Performance of Commercial Banks in Kenya where it was revealed that procurement information systems were helpful in the maximizing work flow and the information systems used maximized transparency and accountability. Additionally, the integration of different departments led to increased user friendliness brought about by the information systems. Relatedly, procurement systems allow sharing of information between the personnel thus improving the accuracy of requisitions made.

This finding are also supported by study by Kipkemoi (2017) on analysis of the impacts of procurement services on organizational performance in the public sector in Kenya; found that appropriate procurement strategies help organizations get good customer service and loyalty, and the findings explicitly showed the way the concept of Enterprise Resource Planning (ERP) has helped procurement departments in various organizations address their purchases as well as attend to their internal and external customers efficiently and effectively. Equally, Richard, Ojino, and Ayoo (2019) examined how strategic sourcing influences organizations in Kenya and found out that sourcing especially if done form a single supplier ascertains uniformity thus consistency in procurement practices. Further, according to Kitavi, Ochieng, and Sang (2020), in their examination of strategic procurement services on the performance of Machakos County government, they established that all the antecedents of procurement practices like supplier relations and strategic sourcing have a significant positive influence on performance of organizations generally.

5.1.4 Strategic information system and organizational performance

On whether strategic information systems are influence on organizational performance, with a correlation coefficient at 65.8% in indicates that strategic information systems strongly compliments organizational performance substantially in that there is notable ease of use, system flexibility, system reliability, and ease of learning, as well as system features of intuitiveness, sophistication, flexibility, and response times within the organization, with relevance, understandability, accuracy, conciseness, completeness, understandability, currency, timeliness, and usability of the information within the organization; responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff; top management supports and encouragement the use of system for job-related work, and provides most of the necessary assistance and resources to enable people to use system; organization employees have enough of training provided by computer specialists in the company, consultants, or educational institutions external to the company; and staff understands how the system work, and confidence that they can learn how to use the system, and employees perceive information system as useful and are satisfied with using it.

From the obtained results, the study found out that over 50% of the respondents were in agreement with information systems in the organization; this is supported by a strong mean of 4.06, and with a strong and positive correlation with realized organizational performance. There is no denying that the era of information systems has precipitated numerous revolutions in different fields. Information has remained a very salient product that drives economies to greatness and information technology has risen to be the key driver of integration and an avenue for new competitive platform for organizations in the current competitive context.

These findings are supported with a study by Ibrahim and Naem (2019) who found out that the degree to which strategic information system is applied will have a contributory effect on organization's competitive advantage. This was given credence by Yoshikuni, Favaretto, Albertin and Meirelles, (2019) studying the Influences of Strategic Information Systems on the Relationship between Innovation and Organizational Performance. In this study, the findings revealed that strong strategic information systems were a panacea for an increase in innovation and organization performance. In another study, Yoshikuni and Albertin (2018) established that indeed strategic information system was helpful in improving corporate performance. They went ahead and averred that these findings are helpful to practitioners to integrate strategic information systems especially in developing countries when facing economic turbulence.

5.2. Conclusion

This research sought to establish how strategic management practices influences organization performance of Allied Plumbers limited. The results indicated that indeed that the organization somehow fashions strategic management practices that are making it to have an upper hand slithering through the dynamics of change and eventually making them to emerge successful in construction industry. This study has asserted the much-established findings from other studies in different contexts with each objective's conclusions.

5.2.1 Strategic infrastructure management

Performances in Allied plumbers limited are achieved by availability of strategic infrastructure management in place that is proper facility planning enhances productivity with minimal cost hence maximized profits, with adequate financial resource capability organization is able to finance project activities with minimal financing costs leading to completion of projects on budget and profitability, with reliable access to raw materials the organization is able to have continuous production and processing of components of construction which ensures there is constant supply of materials to construction sites hence timely completion of the project, with requisite capital resource and appropriate technology in place organization is able to do right production at low cost leading to profitability.

5.2.2 Strategic human resource management

With appropriate recruitment and retention, Allied plumbers limited is able to build bank of knowledgeable and skilled staff, an important factor in overseeing and coordinating day to day activities of the organization taking into consideration timely completion of projects, projects executed on budget and profitability. With succession planning the organization is able to have smooth transition of teams executing projects averting unforeseen delays hence timely completion of the projects. On embracing talent management, training and development, employee engagement, organization will create confidence and motivation on employees, enhancing a skill that leads to great sense of recognition which in turn will promote innovation, with innovation new effective process will be developed translating to core capability of the organization hence gaining and sustaining competitive advantage in the construction industry.

5.2.3 Strategic procurement

The study concluded that strategic procurement plays a supplementary crucial role and is a key pillar to its performance, but Allied plumbers limited procurement was centralized at the helm of management demoralizing the spirit of expertise sourcing of materials hence quality compromise, which coupled with minimal responsibility and accountability. With all requisite strategic procurement process in place the organization will be assured of timely completion of project without or with minimal cost overruns.

5.2.4 Strategic infrastructure management

Strategic information systems act as a supplement to above strategic management practices, by having the right information system and right skilled staff monitoring the system, Allied Plumbers limited will be assured of excellent integration of its core activities as all will be system monitored, reducing decision making time, enhancement of innovation and introduction of state of art process with the organization. Thus, with right information system in place and adequate user training schedules, computer self-efficacy and top management support realization of high level of innovation is inevitable, which in turn ensure organizations gain and retains sustainable competitive advantage in the construction industry.

5.3. Recommendations

From the study it shows that however strategic management practices enhance performance of Allied Plumbers limited, but there is an indication of some laxity on pertinent indicators and if they worked on there will exist sustainable performance.

5.3.1 Strategic infrastructure management

The organization need to put more emphasis and improve on facility planning and management that is enhancing efficient and effective organization layouts and flow of activities and coordination of production process with available resources and capabilities to ensure sustainable organizational performance.

5.3.2 Strategic infrastructure management

As most respondents tend to be in agreement with strategic infrastructure management, procurement and information system, there a tendency of dissatisfaction on strategic human resource management more especially on talent management, training and development, employee engagement, and succession planning. It is evident that with strategic human resource management in place is a core competence and a source of competitive advantage in the industry and for continuous sustainable advantage organization has to invest on requisite human capital.

Organizations in the construction industry need to come up with policy that will see employees acquiring specific knowledge and skills in their current and future roles with greater focus on growth. Also, they need to invest in training and development of their employees as continuous development will facilitate creativity and innovations which in turn brings in new ways of carrying out regular activities within the organization that may lead to sustainable competitive advantage. The other aspect is employee engagement; organizations need to embrace spirit of employee engagement prior to making key decision relating to regular activities of the organization, this will bring about sense of recognition and may be source of satisfaction and motivation to employees leading to enhanced performance. Finally, organization need to have in place a requisite succession planning plan in place as construction industry tend to experience high employee turnover, hence without proper succession plan of exiting and incoming employees to ensure smooth transition from one team to the other that will ensure timely completion of the projects.

It is evident that the highlighted low satisfaction human resource management issues in construction industry need urgent action, as strategic employees are the driving force in coordinating organization's infrastructure, procurement processes and information systems thus management need to come up with a requisite human resource management policy in ensuring highlighted indicators are addressed adequately for organization to realize sustainable competitive advantage. And the same time directors/owners of the construction companies need to relinquish their role as day to day managers of their business and engage strategic managers with business profitability mindset.

At the same time management of organizations in construction industry need to assess the gains that will be achieved by having in place effective talent management, employee engagement and succession planning in place. After which management will assess achievements made by embracing the policy and whether they are sustainable to be embraced continuously.

5.3.3 Strategic procurement

From the findings, delegation of procurement authority, that is organization delegating procurement activities to knowledgeable and skilled employees, scored highly on rarely and somehow implying that it was centralized at the helm of management demoralizing the spirit of expertise sourcing of materials hence quality compromise. The study recommends that Allied Plumbers limited need to assess the gains that will be achieved by delegation of procurement authority to technically skilled human capital. Study also recommends that organizations in the construction industry need to come up with requisite procurement management policy that will see inclusivity of employees with a specific knowledge and skills in their current and future roles in procurement practices to enhance quality based on specifications. The study further recommends that management who doubles as directorship of the organization need to relinquish themselves from daily procurement duties and frequently delegate the expertise procurement roles to technical team for quality purchases translating to quality items purchased, installations with sustainable guarantee suiting client's taste, which in turn attracts referrals and excellent networking leading to gaining competitive advantage in specialized trade within the construction industry.

5.3.4 Strategic information system

From the findings end user training that is organization employees have enough of training provided by computer specialists in the company, consultants, or educational institutions external to the company, scored lowly. Management need to put in place a requisite information system policy to ensure continuous training is done due to vast evolvement of technology to enhance innovation and management need enhance support and encouragement of the use of system for job-related work, and providing most of the necessary assistance and resources to enable people to use system as it will facilitate innovation which in turn will enhance production process and reduction of cost that will lead increased revenue hence sustainable profitability.

5.4. Recommendations for Further Research

This research delved on the study of strategic management practices importance to organizational performance in the construction industry in Kenya ‘a case study of Allied Plumbers Limited’. The researcher recommends further research on the same topic in other construction organizations and other sectors, both within the country and outside the country. This will help to establish whether the same effects will be held true in the other organizations and other parts globally. This will also assist in providing concrete facts upon which reliable conclusions can be made. A replication of this study is recommended but using a larger sample, with more time allocated to the same and a combination of more than one of data collecting instrument should be used like survey and interview with supplementary questions included in the questionnaire and these will help to counter check the information provided. A further study needs to be conducted using more variables and indicators that seem to be more relevant to this study to ensure wide range of findings.

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APPENDICES

APPENDIX I- INTRODUCTION LETTER

The Management University of Africa | MUA
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Date: 11th SEPTEMBER 2020

TO WHOM IT MAY CONCERN

OGETO EVANS OMARI– MBA/13/00097/2/18

This letter serves to introduce the above named who is a **(Master of Business Administration)** student and is interested in carrying out research on **Strategic Management Practices and Organizational Performance in the Construction Industry in Kenya; A case Study of Allied Plumbers Ltd& Quot**

Any assistance accorded to him in pursuit of this study will be greatly appreciated.

Yours Sincerely,

Juster Nyaga
for **Ag, Dean, School of Management and Leadership**

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APPENDIX II- RESEARCH STUDY QUESTIONNAIRE

(For Management and Key Staff)

STRATEGIC MANAGEMENT PRACTICES AND ORGANISATIONAL PERFORMANCE IN THE CONSTRUCTION INDUSTRY IN KENYA: CASE STUDY OF ALLIED PLUMBER LTD.

BACKGROUND OF RESPONDENTS

SECTION I

This section focuses on demographic information which is used for statistical control purposes. The information requested here will ONLY be used to study the effect of such background factors. It will NOT be used to identify individuals or personalities CONFIDENTIALITY IS GUARANTEED

(Tick where appropriate)

1. How long have you worked in your current position? 0-5years [ ], 5.1-10years [ ], over 10years [ ]
2. Gender Male [ ] Female [ ]
3. Which department applies to you?

i. Planning and Finance [ ]

ii. Human Resource and Administration [ ]

iii. Procurement [ ]

iv. Engineering and Operations [ ]

v. Tendering and Contracts [ ]

vi. Site and Construction [ ]

4. Educational level; - [ ] college/ University Diploma, [ ] Bachelor Degree [ ] Master Degree [ ] PhD, [ ] Others (specify)…………………………………………

SECTION II

Items on Research Objectives

1 a. Please tick off only one answer response to agreement, using a scale of 1 to 5, where 1=strongly disagree. 2=Disagree, 3=Neutral, 4= Agree, 5= strongly agree

Question	**1**	**2**	**3**	**4**	**5**
Strategic Infrastructure management -tick in response to agreement of the following					
Facility planning and management – organization having efficient and effective organization layouts and flow of activities, and coordination of production process with available resources and capabilities.					
Financial Resource capability –Organization having access to strategic finance and credit facilities.					
Access to raw materials- Organization’s easy access to appropriate raw materials.					
Capital resource- Organization owns or can easily hire requisite plants and equipments.					
Appropriate information system- Organization using appropriate information system in its production and services process.					

b. Please tick off only one answer, in response to satisfaction using a scale of 1 to 5, where 1= Not all satisfied, 2= Slightly satisfied, 3=Moderately satisfied,4=Very satisfied, 5=Completely satisfied.

Question	**1**	**2**	**3**	**4**	**5**
Strategic Human Resource Management - tick in response to satisfaction of the following					
Recruitment and retention – Organization’s linkage of goals to staff recruitment and its commitment to retain performers.					
Talent Management: - Organization’s support on function to nurture and deliver the best employees.					
Training and Development - Organization having in place programs to help employ acquire specific knowledge and skills in current roles with focus on employee growth and future performance.					

Employee Engagement- management's commitment on consultations with employees prior to decision making.					
Succession planning – Organization's commitment to ensure efficient and effective transition in event of resignation and retirement.					

c. Please tick off only one answer, in response to Frequency using a scale of 1 to 5, where 1= Never, 2= Rarely, 3=Sometimes, 4=Often, 5=Always

Question	**1**	**2**	**3**	**4**	**5**
Strategic Procurement - tick in response to how frequent the following are practiced					
Identification and selection of suppliers- Organization's strategic identification and selection of suppliers prior to purchasing.					
Delegation of procurement authority- Organization delegating procurement activities to knowledgeable and skilled employees.					
Negotiation and contract management -Organizations engaging in procurement negotiation prior to procurement and contract management.					
Supply chain relationships -Organization being in good supply chain relationships with suppliers and other parties in in procurement chain.					
Inventory management- Organization's ordering, storage and distribution management and having requisite tracking systems in place.					

d. Please tick off only one answer, in response to Agreement using a scale of 1 to 5, where 1=Strongly disagree. 2=Disagree, 3=Neutral, 4= Agree, 5= Strongly agree

Question	**1**	**2**	**3**	**4**	**5**
Strategic Information system - tick in response to agreement of the following					
System and information Quality - Ease of use, system flexibility, system reliability, and ease of learning, as well as system features of intuitiveness, sophistication, flexibility, and response times within the organization. Relevance, understandability, accuracy, conciseness, completeness, understandability, currency, timeliness, and usability of the information within the organization.					
Service Quality - Responsiveness, accuracy, reliability, technical competence, and empathy of the personnel staff.					

Top management support- management supports and encouragement the use of system for job-related work, and provides most of the necessary assistance and resources to enable people to use system.					
End-user training- Organization employees have enough of training provided by computer specialists in the company, consultants, or educational institutions external to the company.					
Computer Self-Efficacy and user Experience – Organization staff understands how the system work and confidence that they can learn how to use the system, and employees perceive information system as useful and are satisfied with using it.					

1. Please rate actual performance of your organization over the past three years in terms of agreement 1=Strongly disagree. 2=Disagree, 3=Neutral, 4= Agree, 5= Strongly agree

Items	Rating				
	1	2	3	4	5
Organizational performance					
Was Timely project completion realized (projects completed as scheduled or as per programme of works)?					
Were projects executed on budgets (no realized cost fluctuations)?					
Did projects realize Profitability (were projects' able to produce a return on an investment based on assigned resources)?					
Did the organization have Competitive advantage (organization executed more projects with superior profit margins as compared to other rivals in construction industry)?					

THANK YOU

APPENDIX III: NACOSTI LETTER

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **656719**

Date of Issue: **17/September/2020**

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This is to Certify that Mr.. Ogeto Evans Omari of The Management University of Africa, has been licensed to conduct research in Nairobi on the topic: STRATEGIC MANAGEMENT PRACTICES AND ORGANIZATIONAL PERFORMANCE IN THE CONSTRUCTION INDUSTRY IN KENYA, A CASE STUDY OF ALLIED PLUMBER LTD" for the period ending : 17/September/2021.

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2	erepository.uonbi.ac.ke http://erepository.uonbi.ac.ke/bitstream/handle/11295/93447/Cherugong_The%20Effect%20Of%20Financial%20Literacy%...	0.92%
3	chss.uonbi.ac.ke https://chss.uonbi.ac.ke/sites/default/files/chss/Strategic_Research_Project_November-%20Ruth.pdf	0.89%
4	erepository.uonbi.ac.ke http://erepository.uonbi.ac.ke/bitstream/handle/11295/98532/Nduta%20Caroline_The%20Effect%20of%20Dividend%20Pol...	0.86%
5	erepository.uonbi.ac.ke http://erepository.uonbi.ac.ke/bitstream/handle/11295/77330/Maina_Factors%20influencing%20completion%20of%20cons...	0.83%
6	erepository.uonbi.ac.ke http://erepository.uonbi.ac.ke/bitstream/handle/11295/13356/Muhura_Organizational%20capabilities%20as%20a%20sourc...	0.82%
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8	ir-library.ku.ac.ke http://ir-library.ku.ac.ke/bitstream/handle/123456789/18166/Strategic%20management%20practices.pdf?sequence=1&isA...	0.69%
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Vol 4 No 3 (2020)

Of

Journal of Strategic Management

ISSN: 2616-8472

Publication Head,

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