

**OPERATIONS STRATEGIES AND FIRM PERFORMANCE OF LARGE
CONSTRUCTION COMPANIES IN NAIROBI COUNTY**

BY:

FAITH MBATHA

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE AWARD OF MASTER OF BUSINESS
ADMINISTRATION, SCHOOL OF BUSINESS AND MANAGEMENT SCIENCIES,
UNIVERSITY OF NAIROBI**

NOVEMBER, 2023

DECLARATION

I declare that this research project is my original work and has not been presented for examination for a degree in this or any other university.

Signed.......... Date.....*21st November, 2023*.....

D61/10626/2018

FAITH NDUKU MBATHA

This research project has been submitted for examination with my approval as the university supervisor.

Signed.......... Date.....21/11/2023.....

DR. KIPKORIR M. CHIRCHIR

**LECTURER, DEPARTMENT OF MANAGEMENT SCIENCE AND PROJECT
PLANNING,
FACULTY OF BUSINESS & MANAGEMENT SCIENCES,
UNIVERSITY OF NAIROBI**

DEDICATION

To the Almighty God, who has bestowed upon me the wisdom, strength, and guidance throughout this journey, I humbly dedicate this research project. Your divine presence has been my source of inspiration and unwavering support since I started the education journey.

To my departed father, Josephat Kilungu, whose passion for knowledge and unending encouragement continue to inspire me. Your spirit lives in every page of this work. To my beloved mother, brother and sister, your love, sacrifices, and unwavering belief in my abilities have been my foundation. This project is a tribute to your boundless love and unwavering faith in me.

To my cherished husband, who has been my constant pillar of strength, my confidant, and my source of encouragement. Your unwavering support and belief in my dreams have made this journey possible. Lastly, to my wonderful children, who inspire me to work diligently and strive for excellence every day. This project is a testament to the love and dedication I have for you, and a promise to keep working to make you proud.

ACKNOWLEDGEMENT

I would like to extend my heartfelt gratitude to my esteemed supervisor, Dr. Kipkorir M. Chirchir, your mentorship, guidance, and unwavering commitment to my academic and professional growth have been instrumental in shaping the course of this research. Your insights and feedback were invaluable.

To the diligent moderator, Mr. John Kenduiwo, who skillfully facilitated and enriched the discussions during the research process, your expertise was important in ensuring the quality and depth of this study.

I am deeply appreciative of the National Construction Authority (NCA), for providing access to essential resources and data, which were crucial in conducting this research. Your commitment to promoting excellence in the construction industry is commendable.

To the contractors who generously shared their responses, your participation was integral to the success of this study. Your time and willingness to share your knowledge was important in generating valuable data, without which this project would not have been possible.

Many thanks to all staff members of the University of Nairobi for their kind support during my study. I am deeply thankful for your contributions to all my friends and colleagues for their time, advice and moral support

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
TABLE OF CONTENTS	v
LIST OF FIGURES	vii
ABBREVIATIONS AND ACRONYMS.....	viii
ABSTRACT.....	ix
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study.....	1
1.1.1 Operations Strategies.....	2
1.1.2 Firm Performance	2
1.1.3 Construction Firms in Nairobi County.....	3
1.2 Research Problem	4
1.3 Research Objectives.....	6
1.4 Value of the Study.....	6
CHAPTER TWO: LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Theoretical Literature Review	7
2.2.1 Resource-Based View.....	7
2.2.2 Institutional Theory.....	8
2.2.3 Porter’s Competitive Advantage Theory.....	9
2.3 Operations Strategies	10
2.4 Empirical Literature Review	12
2.5 Summary of the Literature Review	15
Table 2.1: Summary of Literature Review and Knowledge Gaps.....	16
2.6 Conceptual Framework.....	18
CHAPTER THREE: RESEARCH METHODOLOGY	19
3.1 Introduction	19
3.2 Research Design.....	19
3.3 Target Population.....	19

3.4 Data Collection	19
3.5 Data Analysis	20
Table 3.1: Summary of Data Collection and Analysis Methods.....	21
CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS	22
4.1 Introduction	22
4.2 Response Rate.....	22
4.3 Demographic Information from the Respondents.....	22
4.3.1 Number of Projects Undertaken per Annum	22
4.3.2 Length of Operations	23
4.3.3 Number of employees.....	24
4.3.4 Annual Revenues Generated	25
4.4 Extent of Implementation of Operations Strategies by Large Construction Companies.....	25
4.4.1 Cost	26
4.4.2 Quality.....	26
4.4.3 Flexibility	27
4.4.4 Speed	28
4.4.5 Dependability.....	28
4.4.5 Summary of Operations Strategies	29
4.5 The Effect of Operations Strategies on Firm Performance	30
4.6 Discussion of Research Findings.....	32
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	34
5.1 Introduction	34
5.2 Summary of the Findings	34
5.5 Conclusion of the study.....	35
5.5 Limitations of the Study	35
5.6 Recommendations for Further Studies	36
REFERENCES.....	37
APPENDICES.....	40
Appendix I: Questionnaire.....	40
Appendix II: List of Large Contractors in Nairobi County	44
Appendix III: Research License	47
Appendix IV: Introduction Letter.....	48

LIST OF FIGURES

Figure 2.1: Conceptual Model 18

ABBREVIATIONS AND ACRONYMS

BSC	Balance Score Card
CASP	Computer-Aided Strategic Planning
DMP	Distribution Management Practices
GDP	Gross Domestic Product
KNBS	Kenya National Bureau Services
NCA	National Construction Authority
NCA 1	National Construction Authority Category 1 contractors
MCK	Media Council of Kenya
RBV	Resource Based View
SEM	Structural Equation Modeling
SPSS	Social Packages of Statistical Software

ABSTRACT

In recent years, construction companies in Nairobi County have been grappling with rising client demands, the imperative to enhance services and products, inflation, a shortage of skilled labor, and capital supply constraints. These challenges have driven them to formulate strategies for adapting to the evolving landscape. Developing of competitive business models has become a critical resource for improving the overall performance of large construction companies. This study aimed to investigate the impact of operations strategies on the performance of large construction companies in Nairobi County. The study objectives included assessing the implementation levels of operations strategies and examining the effect of operations strategies and performance. Descriptive research design was employed, involving a census population of 186 construction companies within Nairobi County. Primary data was obtained using questionnaires which were distributed through electronic mails and the drop-and-pick later method. The study applied descriptive statistics to analyze the level of operations strategy implementation by large construction companies in Nairobi County and employed multiple regression analysis to assess the impact of operations strategies on firm performance. The findings indicate that cost, quality, flexibility, speed, and dependability priorities were widely adopted by large construction companies in Nairobi County. In terms of their impact on performance, quality, flexibility, and dependability were found to have statistically significant and positive effects, while cost and speed did not exhibit statistically significant effects. It is recommended that construction companies prioritize the adoption of quality, flexibility, and dependability operations strategies, as they were found to significantly enhanced overall balanced scorecard. This study findings were limited as the research solely relied on primary data from large construction companies in Nairobi County. Future research should explore the relationship between operations strategies and performance in different sectors, such as consulting firms, manufacturing companies, or contractors operating under other categories defined by the National Construction Authority

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Operations strategy is vital in driving organizations towards the goal of surviving in the competitive world. According to Njenga (2018), operations strategies are used to defend an organization's competitive position and improve its performance. Organizations with a defined strategy do better than those operating without one, regardless of their age and experience (Porter,1985). It is a game of enhancing organizational performance. Moreover, it is the basic determinant of success or failure. Organisations require operations strategies that provide them with a competitive edge, ensuring superior performance and long-term survival in the market.

The link between operations strategy and performance can theoretically be backed by the Resource-Based View (RBV), Institutional Theory and Porter's Competitive Advantage Theory. RBV introduced by Barney (1991) revealed that an organization can earn a sustainable competitive advantage through effective utilization of its resources. Scott (1987) advanced the institutional theory that recognized an organization as a social structure that has attained resilience through its organizational activities and the resources it possesses, which change with response to customer demands. Porter's (1985) generic strategies emphasize specialization on differentiation, cost leadership or focus strategy to achieve competitiveness. The three theories emphasize the management of resources, processes and strategic actions that influence the daily undertakings of construction companies in Kenya. Thus, on the basis of these theories, there exists a linkage between operations strategies and firm performance.

Kenya National Bureau of statistics, (2023) report indicates that, the construction sector is a key player in economic growth with an approximate contribution of 7.1 % to gross domestic product (GDP). Construction companies are stakeholders in the construction industry and are confronted by the increasing demands from clients, the need to improve services and products, inflation, inadequate skilled labour and capital supply. Jones (2018) identified site safety concerns, technology adoption, labour shortages and stagnation of production as a result of poor operations strategies as the key challenges facing construction companies. The study focused on identification of operations strategies that ensure the best operations in the realization of project. The repercussion of poor operations strategies are very high, hence the need to establish and implement the correct strategy for improved performance.

1.1.1 Operations Strategies

There are many definitions of operations strategy. Resch, Buehler and Klausen (2017) consider operations strategy as procedures that an organization uses to achieve its objectives through effective and efficient use of resources, employees, and work processes. An effective operations strategy is important for enhancing organizations' performance. Operations strategy is a plan drawn up by the corporate team to allocate funding to the organization to support the overall strategic decisions (Njoroge, 2013). This is because the corporate team focuses on long-term decision making of the firm. Njenga (2018) noted that operations strategy is characterized by periodic action-oriented decisions that lead to the execution of strategic objectives at corporate and business levels.

While many researchers considered a single perspective in defining operations strategy, Lewis (2008) argues that operations strategy development considers four key perspectives; top-down, bottom-up, operation resources, and market requirements while considering capacity, supply network, process technology, development & organization strategies decision areas. The study further defined operations strategy as the comprehensive set of decisions that determine the long-term capabilities of an operation and how they align with and contribute to the overall strategy by harmonizing market demands with available operational resources. It is more concerned with the overall transformation process in the business rather than a single process. It provides the entire business with a sustainable advantage in the long run. The author also contends that this strategy addresses how to acquire and arrange key organizational resources in order to achieve the established objectives.

The results of Simu (2015) study identified organization, human resource, planning and quality as the operations strategies implemented by contractors. This study adopted operations strategy dimensions explained by Lewis (2008), which are cost, quality, flexibility, speed and dependability. These strategies focus on how construction companies can uniquely offer their products while ensuring a competitive edge over their competitors.

1.1.2 Firm Performance

Performance constitutes a holistic framework upon which numerous factors rely. Voss, Åhlström and Blackmon (1997) defined performance as a measure of organizational output, profits, the organization's responsiveness to environmental change, the firm's structure, and internal processes and procedures. Ngina (2019) viewed it as the firm's capacity to obtain and

utilize rare resources. Performance is competence in carrying out operations in transforming firms' resources to achieve objectives and goals of an organization. Organizations should aspire to increase their ability in acquiring and utilizing their scarce resources to generate output at minimum cost in order to realize performance. Improved efficiency enhances financial utilization and is indicated by growth in output while the input remains constant. This, in turn, results in reduced resource wastage (Aggrey, Eliab & Joseph, 2010).

There are different methods of measuring performance. Cartlidge (2018) proposes that performance should be measured through benchmarking within the organization and across the industry. In this regard, organizations should display their priorities, values, objectives, and vision to the outside world and their clients for effective and honest performance measures. It is noted that benchmarking is critical in measuring performance.

The balanced score card (BSC) was employed to gauge performance in this study. The BSC framework extends the scope of performance measures across four key dimensions: customer, financial, internal and learning and growth (Kaplan and Norton, 1992). The customer dimension focuses on ensuring the delivery of value to customers, while the financial is geared towards delivering value to shareholders. Internal dimension emphasizes the enhancement of efficient and effective business processes. Finally, learning and growth is geared to foster the continuous development of change capabilities and innovation, ensuring preparedness for future challenges. The BSC outperforms traditional financial measures by enhancing historical financial indicators with those focused on future performance and by balancing various aspects, including leading vs. lagging indicator, long-term vs. short-term goals, internal vs. external performance and financial vs. non-financial metrics (Chirchir, 2022)

1.1.3 Construction Firms in Nairobi County

Construction firms are registered by the National Construction Authority (NCA) Act, 2011 and entitles the companies to offer their services to the public for a reward or other valuable considerations (Akech, 2020) No.3973. Further, NCA governs and regulates construction companies classifying them based on their technical capacity, plant and machinery and financial muscle, ranging from NCA 8 to NCA 1 (National construction authority,2020). NCA 1 contractors are the largest and are eligible to work on a wide range of projects such as building works, road works, security installations, lift installations, electrical and mechanical installations, among others. Construction companies are engaged by clients to construct work in accordance with designs, specifications time, budget and quality. These companies construct

building space and infrastructure for all other industries as they offer employment to various professions (Onchagwa, 2021).

Construction companies are faced with various challenges in their operations to deliver projects. These include inflation, financial constraints, compliance with government regulations, complex procurement procedures to acquire projects, corruption, lack of proper project coordination, construction disputes, long procedures to access loans, large interest rates on loans, lack of machinery and equipment, among others. It is clear that some of these challenges are a result of poor or no operations strategy adopted in the changing business environment. In line with operations management, some of these challenges can be addressed through the adoption of an effective operations strategy (Ogolla, 2013).

1.2 Research Problem

Construction firms are grappling with the current market conditions, which are attributable to escalating costs of raw materials for construction, uncertainties of returns due to poor performance of the economy, poor reputation, inadequate financing, technical and skilled personnel, as well as customer demands (Wandiga, Kilika & James, 2019). In this regard, organizations need flexible and aggressive strategies that will align with the current situation on how to respond to the impacts. Operations strategies enable a firm to cope to a changing environment by allowing strategic allocation of resources to key success factors. Operations strategies also enable a firm to grasp opportunities that arise and contain failures and weaknesses to gain a competitive edge in the market. Construction firms in Kenya, therefore, requires having actions geared toward improvement of operations strategies which would enhance quality and reduce cost to attract performance.

Van Noppen (2012) noted that there is high demand for housing because of the increased population in the country as well as the realization of the government's low-cost housing agenda. KNBS (2023) projects that the population in Kenya continues to grow until 2035. The annual demand for units of buildings is 206,000 which cannot be met by supply which is since it provides only 50,000 units per year (Ong'era & Kepha, 2021). This indicates that every year there is a deficit of 156,000 units. The surge in housing demand due to population growth has not translated into improved performance for construction firms in Kenya. This is primarily attributed to a decline in the quality of buildings, contributing to a rising number of collapses and posing a significant threat to the lives of the population. Also, local construction firms in

Kenya are currently facing stiff competition from international companies especially Chinese firms (Ong'era & Kepha, 2021).

Wandiga (2019) looked into the performance and operations strategy of Kenya's Nairobi County consulting firms. The results showed that a number of strategies, such as knowledge-based value chain strategy, resource management strategy, and value proposition strategy, had a significant positive relationship with the performance of the management consulting businesses under investigation. There is no apparent association between facility strategy and performance, according to the study. The results of the study showed that, although regulatory framework had no moderating effect on the link between the key variables, organizational skills shared a partial mediation association between operations strategy and performance relationship. Njenga (2018) on the other hand did not find influence of operations strategies on performance of architectural firms. Kibos (2019) conducted a study aimed at determining the operations strategies implemented by Kenyan state corporations and their impacts on performance and established a positive relationship whereby operations strategies influenced 27.6% of the state corporation's performance. These strategies were: service quality, operations flexibility, delivery performance and cost containment. The findings also indicated that state corporations embrace service quality strategy through having clear definition of service level agreement, operating procedures, terms of engagement, staff training and stakeholder feedback.

There are other related studies that sought to link operations performance to operations strategies. Most of the studies have been done in Europe, America, Asia and few parts of Africa. They include Nwachukwu and Chladkova (2019), Alarcón and Bastías (1998) and Faut (2023). These studies show that such efforts have failed to appreciate operations strategies in the context of large construction companies in the region, indicating the need to fill this gap. Given the unique nature of construction companies, studies in other industries cannot be extrapolated to the construction industry. This current study addressed these gaps by responding to the research question: What is the effect of operations strategies on firm performance of large construction companies in Nairobi County?

1.3 Research Objectives

The research objectives were:

- i. To determine the extent of implementation of operations strategies by large construction companies in Nairobi County.
- ii. To establish the effect of operations strategies on the firm performance of large construction companies in Nairobi County.

1.4 Value of the Study

The study will be important to construction managers and practitioners in the construction sector. It will present the opportunity to create strategies based on the study's findings for the delivery of construction projects. They will comprehend and implement operations techniques that will improve the performance of their organizations. The constructors will use the study's empirical results on operations strategies to guide them in project time, budget and quality management. This will be vital to ensuring that they increase their competitiveness as well as increase value in the industry by setting up high-quality construction projects that are completed within time as well as at planned costs.

The government of Kenya, through the National Construction Authority, relevant ministries, parastatals and legislative bodies, as well as policymakers will find this study valuable in developing and enforcing policies and guidelines operations strategies. This will enhance the industry's performance and boost the country's economic growth. Good performance by the construction firms will ensure quality and affordable houses are built which is in line with one of the agendas of vision 2030, which is to provide affordable housing.

The study will benefit academicians, scholars, and researchers who will undertake related studies. It will add to the literature, be used as a reference, and provide empirical findings that can be used in areas of operations management. Scholars and researchers will be able to access scientific secondary data and findings on operations strategies and their impact on performance, as well as establish gaps that can be filled by their studies

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter outlines the relevant literature, starting with the foundational theories that underlie the research and proceeding to elucidate the interrelationships among the key research variables. The chapter also reviews studies that have been found to be relevant to the study and concludes with the conceptual framework.

2.2 Theoretical Literature Review

The study was founded on three theories which are the Resource Based View, Institutional Theory and Porter's Competitive Advantage Theory. The anchoring theory for the study is Resource-Based View. The theory directly links operations strategies to performance, as it proposes that firms seek to utilize resources at their disposal to enhance performance. The theories are elaborated upon in the subsequent section of this chapter.

2.2.1 Resource-Based View

This theory was introduced as a concept by Wernerfelt (1984), Rumelt (1984) and Barney (1991) to address the constraints of environmental models of competitive advantage of organizations over their competitors. This view is thus based on two assumptions; that a firm's heterogeneous advantage is derived from strategic resources under its direct control and the immobility or longer duration of resources as they are not easily exchanged in factor markets.

The key propositions of this theory suggest that firms obtain and maintain competitive advantage through strategically structuring their resources to exploit internal strengths while adequately acknowledging environmental opportunities as they arise. The theory thus acknowledges the idiosyncrasies and immobility of firm resources in creating a sustained competitive advantage. The resources that aid firms in implementin strategies that build on their effectiveness and efficiency are classified into organizational, human and physical capital resources (Barney, 1991). As a result, these capital resources contribute to executing a value-creating strategy that distinguishes it from strategies employed by current or prospective firms. This distinctiveness is sustained by implementing the strategy at different times than competitors, and solidified when competitors encounter challenges in replicating the created value. The sustainability of competitive advantage is measured by its ability to be duplicated rather than the duration it increases the value of the firm. If it is duplicated by other competing

firms, it ceases to give an advantage to the original firm that implemented its use. Subsequently, for a resource to accrue a sustained competitive advantage, it must exhaust all opportunities and counter all threats to the firm. It has to be limited to the firm's present and prospective competitors, unavailable for purchase by competitors and the advantage should lack strategically equivalent substitutes according to the criteria. The relation between immobility and resource heterogeneity and the criterion for such resources thus constitute a sustained competitive advantage.

The theory thus supports the study through its postulation of a competitive advantage that directly affect firm performance through the implementation of value-increasing strategies. The company will strive to create a distinct product and service niche that competitors will be unable to replicate. The theory also explains why some construction firms perform better than others despite operating in the same environment (Ngina, 2019). As earlier mentioned, construction firms in Kenya are currently facing stiff competition from international companies especially Chinese firms which provide construction products and services at a moderate cost compared to a local firm. The theory is very key in this study in that the competitors will require an advantage to thrive

The Resource Base View has faced considerable criticisms since it was postulated and widely adopted (Kraaijenbrink, Spender & Groen, 2010). Criticisms point to its limited applicability and the unfeasibility of sustained competitive advantage due to the nature of requirements for sustainable strategic resources. The Resource Based View also lacks managerial application as it does not elaborate on how the firms should go about obtaining resources for sustained competitive advantage (Lavassani, 2010).

2.2.2 Institutional Theory

Introduced in the late 1970s by John Meyer and Brian Rowan and subsequently refined by Scott (1987). He emphasized the diversity of its postulations since its implementation, as well as the more recent conceptions brought about by institutional theory. Scott (1987) proposes institutionalization as a value-adding process in which organizational structure serves as an adaptive tool shaped in response to participant traits and commitments as well as outside influence and limits that accrue. As a result, this process plays a vital role alongside the technical provisions of the tasks at hand. He also defined institutionalization as the process of creating of realities that promote social order by actively learning from one another based on a shared social reality. Institutionalization can also be defined as a set of elements emphasizing

the fact that institutionalized belief systems are a distinct set of factors explaining the evolution of organization and management, and thus the emphasis shifts away from broad belief system characteristics and toward the existence of numerous sources or locations to pursue distinct social ends.

The theory's relevance to the study is evident as it explores institutional nature of firms and companies. This can be achieved beyond their initial goals through a gradual learning process that can afford such firms an advantage over others, especially in the long run scope of their operations. The construction industry requires unique institutions for its growth. According to Kibos (2019) institution theory influences the organizational behavior and empowers them to behave in a socially responsible manner.

The institutional theory faces criticisms due to its assumption of organizational apathy failing to elaborate on strategic behavior and bearing of influence on the conceptions of institutionalization. The theory may have been stretched beyond its core purpose of continuity of organizational structure beyond technical firm goals due to its varying interpretations (Suddaby, 2010).

2.2.3 Porter's Competitive Advantage Theory

The theory was postulated by Michael Porter (1985) suggesting that firms should adopt policies that favor the creation of high-quality goods. These goods would be sold at high prices in the market, thus giving it a competitive advantage in terms of both profit and services provided to customers. This theory emphasizes generating advantages that a firm lack, enhancing its proactive implementation (Investopedia Team, 2022).

The theory states that a firm's competitive advantage arises from its capacity to enhance the value of goods and services offered to customers. Porter (1985) categorizes two basic types of competitive advantage: cost leadership and differentiation. Cost leadership is the projection of a firm as the least cost for customers, thus giving a cost advantage as the firm reduces the cost of adding value to goods and services. A firm's differentiation within an industry provides a competitive advantage by delivering unique value to customers. The theory also takes into consideration diversified firms that can gain a competitive advantage in the form of interrelationships with firms competing in related industries. This can lead to diversification and improvement of service delivery through collaboration with similar firms.

This study is underpinned by this theory as it elaborates and shows the link between the strategy for competitive advantage and its actual implementation. This gives firms a clear avenue and strategy to increase competitive advantage. This study determined the level of implementation of operations strategies by large constructions companies to gain a competitive advantage.

The theory has faced criticisms as business scholars argue that competitive advantage especially in the modern scope of business volatility should be transient rather than sustainable. Sustainable competitive advantage is thus counterproductive in that it does not equip firms with the ability to assess and act accordingly to the changing scope of business management and source of success and profit (Mekić, E., 2014).

2.3 Operations Strategies

This study reviewed operations strategies that are expected to influence performance and it adopted the traditional operations strategy dimensions defined by Lewis (2008) as, cost, quality, flexibility, speed and dependability. These five dimensions focus on the key items that distinguish a company from its competitors.

Cost within construction firms revolves around the intricate balance between resource allocation and achieving optimal performance. According to Kirui (2018), construction companies are driven by the pursuit of wealth maximization, necessitating the identification and implementation of the most cost-effective solutions that align with the inherent constraints of a project. This often entails a delicate interplay between budget limitations, timeline considerations, and overarching quality objectives. Companies strive to find ways to reduce expenses in areas such as labour, materials, plant and equipment management while maintaining a level of quality that meets the customer expectations (Magutu, Ndubai, Mbeche, Mwove, Nyaanga and Nyamwange, 2010)

Quality revolves around the pursuit of excellence in the products and services that companies deliver. According to Lewis (2008), quality extends beyond mere specifications; it involves aligning products and services with their intended purposes or even surpassing the expectations of the clients. Quality measures help identify and rectify any deviations from the prescribed standards, thus safeguarding the integrity and durability of the final product. Moreover, the pursuit of quality is an ongoing journey of improvement. Construction companies embrace a culture of continuous improvement, where processes are constantly evaluated, refined and optimized. This approach enhances their responsiveness to the ever-evolving demands of

clients and the industry at large. By fostering an environment of constant learning and enhancement, construction firms can adapt swiftly to emerging trends, technologies, and best practices.

Flexibility in construction firm's operational framework signifies the company's agility and resilience in responding to dynamic market conditions and evolving client requirements. In today's rapidly changing business landscape, where market trends and customer preferences can shift unpredictably, the ability to swiftly adapt promotes a company's long-term success and competitive advantage. It involves cultivating a workforce capable of seamless role transitions, leveraging modular construction techniques for quick adjustments, and embracing agile project management methodologies to maintain close client collaboration. As highlighted by Kiloh, Magutu and Onger (2020), flexibility in operations encapsulates the capacity of an organization to realign its processes, resources and strategies in a nimble and efficient manner.

Speed holds a pivotal role within the dynamic landscape of construction, where project timelines often intertwine with client expectations. Clients in this era have a low tolerance for waiting and organizations that capitalize on timely delivery become more competitive (Magutu et al, 2010). One of the primary focal points to address speed effectively is the reduction of cycle times, reduction of waiting time, streamlining workflows, optimizing project schedules, and eliminating bottlenecks. In the pursuit of heightened speed, construction companies utilize cutting-edge technology that enables real-time tracking of progress, timely identification of deviations and efficient resource allocation, all of which contribute to expedited project timelines.

Dependability embodies the unwavering commitment to consistently deliver on promises and meet obligations, instilling trust and reliability in clients and stakeholders (Shakky, 2013). It goes beyond mere adherence to project timelines; it encompasses a holistic approach to project execution that includes reliable supply chain management, consistent quality assurance and transparent communication with all project participants. Construction companies that prioritize dependability not only ensure that projects are completed on schedule but also provide clients with the peace of mind that their investments are in safe and reliable hands. This reliability not only enhances customer satisfaction but also fosters long-term partnerships and strengthens the reputation of the firm within the industry.

2.4 Empirical Literature Review

This section examines the empirical literature relevant to the study. Alarcón and Bastías (1998) set out to establish the implications of computer-aided strategic planning (CASP) on the operations of construction firms. An approach that enabled the modeling and evaluation of strategic planning decisions in construction firms was established by extending and implementing modeling principles originally developed to analyze and project strategic operations in a computer system. Cross-impact analysis and probabilistic inference ideas were used to orient the conversation. A computer system built on the Windows 95 platform offered a graphical user interface to assist users in creating conceptual models of the decision problem, the company and its surroundings. The study found that the implementation of computer systems in the gauging of a firm's strategic scope of decisions could prove a viable means of achieving a hastened competitive advantage. The sophisticated model was presented in a simple format for the firm's decision-makers. The study did not show the direct implication of the computer model's implementation on the operations strategies and their outcomes which was addressed in this study.

Park et al. (2010) undertook research to investigate the comparison and analysis of strategic planning of Korean construction firms. Aiming at developing crucial data related to the establishment of forthcoming business strategies for Korean firms. The study examined local business strategies as well as those of other superior construction firms worldwide. It sought to comprehend global construction markets and discover success factors regarding a firm's growth. Construction firms listed in Engineering News- "Top Record's 225 Global Contractors" from 1995 to 2007 were examined in order to choose firms for the case study. The model of business structure change was investigated by selecting and categorizing such firms based on two analysis standards: revenue size and competitors. The study found that, in order to stabilize their revenues and competence, these firms took proactive measures and swiftly responded to market fluctuations. The study did not analyze the operations strategies and their effect on performance of the firms which was addressed in this study.

Nwachukwu and Chladkova (2019) set out to establish the strategic analysis of firm resources and strategic performance as a moderator of organizational structure. The research used survey method in the collection of data from 105 managers of four multinational firms in the mobile telecommunication sector in Nigeria. The study found a positive relationship between human resources, financial resources and strategic analysis capability while organizational structures

had moderate relationship. The study did not address the performance of large Kenyan construction firms in the context of operations strategies which was addressed by this study.

Faut (2023) study aimed to establish the effect of the competitive landscape on the Georgian beverage industry. The objective was to determine the significance of market orientation and innovation in determining the success of competitive strategies. The study utilized data from the local beverage industry. Structural Equation Modeling (SEM) was employed, involving 325 respondents from the beverage industry. It examined how market orientation and innovation independently generated mediating effects in that demanding industry. The findings suggested that companies adopting a pragmatic market-oriented approach in their product planning and advertising, while also focusing on innovation, were better positioned to maintain success within this fiercely competitive business environment. The study did not address the Kenyan construction firms in the context of operations strategies which was addressed by this study.

Locally, the Ogolla (2013) study determined the effect of operations strategies on the performance of motor vehicle assemblers. The data was analysed using both descriptive and inferential statistics. The study found that motor vehicle assemblers faced stiff competition, which compelled them to implement competitive advantage operations strategies. The findings indicated that operations strategies significantly increased earnings, effectiveness, customer service quality, market share and employee happiness. The research did not address large construction firms which was elaborated upon in this study.

Wambugu and Waiganjo (2015) study sought to establish the impact of strategic management on the organizational performance of construction companies in Nairobi City County. It utilized questionnaires with both closed and open-ended questions to collect data. The closed-ended questions utilized a Likert scale, which was filled out according to the level of agreement felt by the respondents. The study found that high-quality goods generated good customer relationships and growth in market share. Firms that employed customer-tailored and high-quality products were more profitable. The study did not address the performance afforded to firms that adequately employed the operations strategies addressed by this study.

Kemunto (2016) examined the effect of operations management practices on the performance of telecommunications firms in Kenya. A survey design was employed for the study's research methodology. It used a structured questionnaire instrument to gather both raw and secondary data. Additional data was gathered from these companies' websites and pertinent publications.

Descriptive statistics and multiple regression analysis were used to analyze the data. The study discovered a substantial effect of design operations management on the performance of Kenyan telecommunications enterprises, pointing to the enhancement of products and services, which were found to positively influence the firms' performance. The study did not cover the entire population, which was addressed by the census design in this study.

Njenga (2018) undertook a study to establish the operations strategies architectural firms in Kenya adopted and their subsequent bearing on performance. Questionnaires were utilized to collect data and analyzed using qualitative and quantitative techniques with the help of the SPSS software program version 26. The study found that the organization did not employ all operations strategies, leading to a lack of realization of the benefits associated with the adoption of these strategies. The results of the study showed that the operational success of Nairobi's architecture businesses was positively correlated with their operations strategies. The study excluded construction firms, which were covered in this study.

Jebiwott (2021) investigated the operational decisions and performance of retail supermarkets in Uasin Gish County. The study gathered primary data using specially designed questionnaires. The findings revealed that operational decisions have a significant impact on organizational performance. Capacity, Job and layout designs account for approximately 44% of the improvement in quality, 60% of the improvement in speed, and 28% of the improvement in cost. The operational decisions increased the quality of service provided to clients, reduced costs and increased customer service speed. The study did not address the impact of operations strategies on large construction firm performance in Kenya, which was addressed in this study.

Munyiri, Rintari and Moguche 2022 study aimed to investigate the impact of operations strategy on the performance of the Media Council of Kenya (MCK). Using a descriptive research design, data was collected from 96 MCK employees in Nairobi County. Findings revealed a strong emphasis on ensuring timely implementation of formulated operations strategies within MCK, with 89% strongly agreeing with this approach. The study identified inadequate funding for operational strategies, as 51% strongly disagreed with the budget provision. Interview results highlighted the importance of task completion timelines and challenges, particularly in relation to the impact of COVID-19. Operations strategy was found to have a substantial influence on MCK's performance, with a 40.8% impact. The study recommended that MCK management implement a system to facilitate staff awareness of tasks and required resources, ensuring timely resource allocation and efficient operations. The study

did not address the impact of operation strategies on large construction firm performance in Kenya, which was addressed in this study.

Emmanuel (2023) explored the impact of operational-level strategies on the organizational performance of four-star hotels in Mombasa County, particularly in the context of challenges posed by COVID-19-related travel restrictions. The research identified positive and significant relationships between human resource and customer service strategies and organizational performance, indicating that improvements in these areas contributed to better performance. Information and communication strategies also exhibited a moderately positive relationship with performance. However, marketing strategies showed a significant impact on performance but made an insignificant contribution to improvement. The study concluded that these operational strategies do influence hotel performance and recommended measures such as employee engagement practices, improved working conditions, and enhanced customer care services to improve performance in this challenging environment. This study specifically focused on competitive operations strategies, including cost, quality, speed, flexibility and dependability, which were not addressed in previous research.

2.5 Summary of the Literature Review

This part comprises the summaries of literature reviewed, research findings and research gaps:

Table 2.1: Summary of Literature Review and Knowledge Gaps

Author (s)	Title of Study	Major Findings	Knowledge Gaps	How the Current Study Will Address the Gap (s)
Alarcón and Bastías (1998)	Implications of CASP on the Operations of Construction Firms	CASP contributed to hastened competitive advantage in construction firms.	Focus on implications of computer model implementation on operations.	Focus on operations strategies and firm performance.
Park et al. (2010)	Comparison and Analysis of Strategic Planning of Korean Construction Firms	Implementation of proactive measures and swiftly responded to market fluctuations stabilized revenues.	Examined local and global construction firms to understand success factors for growth.	Focus on local construction companies to establish level of implementation of operations strategies and effect on performance.
Nwachukwu and Chladkova (2019)	Strategic Analysis of Firm Resources and Strategic Performance as a Moderator of Organizational Structure	Positive relationships were found between various resources and strategic performance.	Focus on firm resources and strategic performance	Focus on operations strategies and firm performance
Faut (2023)	Effect of Competitive Landscape on the Georgian Beverage Industry	Market orientation and innovation were significant in determining the success of competitive strategies in the beverage industry.	Focus on Beverage industry	Focus on construction firms.
Ogolla (2013)	Operations Strategies and performance of Motor Vehicle Assemblers.	Operations strategies significantly improved performance.	Focus was on Motor vehicle assemblers.	Focus on large construction firms.

Author (s)	Title of Study	Major Findings	Knowledge Gaps	How the Current Study Will Address the Gap (s)
Wambugu and Waiganjo (2015)	Strategic Management and Organizational Performance	Firms employing customer-tailored high-quality products were more profitable.	Focus on strategic management impact on operational performance.	Focus on operations strategies impact on firm performance.
Kemunto (2016)	Operations Management Practices and Performance	Design operations management significantly influenced the performance.	Survey Design	Census Design
Njenga (2018)	Operations Strategies and Performance	Many architectural firms did not fully implement all operations strategies, and this impacted the benefits of these strategies.	Focus on architectural consulting firm in Kenya.	Focus on large construction firm performance in Nairobi County.
Jebiwott (2021)	Operational Decisions and Performance	Operational decisions significantly impacted organizational performance.	Focus on operational decisions.	Focus on firm performance
Munyiri, Rintari and Moguche (2022)	Operations Strategy and Performance	Operations strategy had a substantial impact on the performance.	The study did not address cost, quality, speed, flexibility, and dependability operations strategies	This study will investigate the influence of operations strategies on large construction firm performance in Kenya.
Emmanuel (2023)	Operational Level Strategies and Organizational Performance	Human resource and customer service strategies positively influenced hotel performance.	Focus on organizational performance particularly in the context of challenges posed by COVID-19-related travel restrictions.	Focus only on operations strategies and performance of large construction companies in Nairobi County.

Source: Researcher (2023)

2.6 Conceptual Framework

The independent variable in the study is operations strategies whose indicators are cost, quality, flexibility, speed and dependability strategies. The dependent variable is firm performance that is determined by the balanced score card. Figure 2.1 shows the relationship of the operations strategy's variables and performance as the dependent variable.

Figure 2.1: Conceptual Model

INDEPENDENT VARIABLE



Source: Researcher (2023)

DEPENDENT VARIABLE



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the methodology that was employed in this study. It describes the research design, the target population, data collection methods, and data analysis.

3.2 Research Design

The study adopted a descriptive cross-sectional research design. It undertook an in-depth study of the large construction firms in Nairobi County on matters relating to operations strategies and performance. Descriptive study seeks to answer the questions of what, when, where and sometimes how (Cooper and Schindler 2014). It was thereby adopted in this study to scrutinize the variables of operations strategies and performance as they affect and relate to the large construction firms in Nairobi County, Kenya.

3.3 Target Population

This study targeted large construction firms in Nairobi County. Given the heightened demand for housing nationwide, private developers have notably intensified their activities in Nairobi County in comparison to other regions (Competition Authority of Kenya, 2017). The NCA has registered 1604 contractors in Nairobi County under NCA 1- 8 category (National Construction Authority, 2022). The research population comprised the 186 firms registered under NCA 1 in Nairobi County (Appendix II). These contractors are the largest and are eligible to work on a wide range of projects. NCA 1 contractor has met all necessary qualifications and regulatory requirements to engage in large-scale construction endeavors across various sectors. A census was carried out to improve the response rate. Jebiwott (2021) used a census survey successfully.

3.4 Data Collection

The study collected firsthand data by use of both structured and unstructured questionnaires as the data collection instruments. “Drop –and– pick later” method and Google forms were applied to administer the questionnaires. The questionnaire consisted of three parts. Section A covered the general information; Section B comprised data on the first study objective which was the extent of implementation of operations strategies by large construction companies in Nairobi County; Section C sought to find out the effect of operations strategies on firm

performance of large construction firms in Nairobi County as measured by financial status, internal processes, customer focus and learning and growth.

One project manager from each of these companies was chosen as study responded. They are deemed to be the most qualified participants because of their involvement in the execution of project. Managers are believed to have all round knowledge in project execution (Genga, 2019).

3.5 Data Analysis

Collected data was tested for consistency and completeness, after which SPSS software program version 26 was used in undertaking data analysis. The study employed both descriptive and inferential analysis. For objective one, the extent of implementation of operations strategies was analyzed via descriptive statistics based on the respondents' background information. Regression analysis was used to investigate the association between operations strategies and firm performance in the second objective.

The analytical model that was utilized in the study analysis took the form

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$$

Whereas, Y = The composite measure of Performance as proposes by the Balanced Score Card determined by firm's financial status, internal processes, customer focus and learning & growth.

X₁ represent Cost strategies

X₂ Quality strategies

X₃ Flexibility strategies

X₄ Speed strategies

X₅ Dependability strategies

$\beta_1, \beta_2, \beta_3$ and β_4 are coefficients of X₁, X₂, X₃, X₄ and X₅

β_0 and ε are regression constants.

Table 3.1: Summary of Data Collection and Analysis Methods

The objectives	Questionnaire part	Data analysis response
General information (biodata)	SECTION "A"	Descriptive statistics
To determine the extent of implementation of operations strategies by large Construction companies in Nairobi County	Section "B"	Descriptive Statistics
To establish the effect of operations strategies on firm performance of construction companies in Nairobi County	Section "C"	Regression analysis

Source: Researcher (2023)

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This section presents the results of the data analysis concerning the operations strategies and performance of large construction companies in Nairobi County. It also includes the interpretations and discussions of the findings, drawing from the literature reviewed. The presentation of the results involved the use of tables.

4.2 Response Rate

In this study, a total of 123 out of 186 surveys were completed and returned by the respondents, resulting in a response rate of 66.1%. This was considered adequate for conducting data analysis and ensuring the reliability of information related to the operations strategies and performance of large construction companies within Nairobi County. The moderately high response rate observed in this research aligns with Chirchir's argument (2022), which suggests that a medium response rate is a trustworthy way to get objective figures.

4.3 Demographic Information from the Respondents

The demographic data collected was the name of the organization, the number of projects undertaken per year, the duration of operation of the organization, the number of company employees and the annual revenue generated by the company.

4.3.1 Number of Projects Undertaken per Annum

The study participants were required to specify the number of projects carried out by the companies per annum to aid in understanding the scope and workload of construction companies in Nairobi County. Table 4.1 provides an overview of the number of projects executed by large construction companies in Nairobi County per year, categorizing them into different annual project ranges. The majority of companies, representing 49.6% of the respondents, reported undertaking between 1 to 5 projects annually. 27.6%, indicated that they completed between 6 to 10 projects each year. In contrast, 13.0% of the companies reported handling between 11 to 15 projects annually. A smaller portion, 5.7%, managed 16 to 20 projects each year. Additionally, 4.1% of the companies reported

handling more than 20 projects annually, indicating a relatively smaller group of companies that engage in a high volume of projects. The data illustrates a diverse range of project volumes among the surveyed companies, with the majority undertaking a moderate number of projects annually. This indicates that a majority of construction companies have actively participated in projects, which is significant for them to gain insights on operations strategies and its bearing on performance of the firms.

Table 4.1: Number of Projects Undertaken per Annum

Years	Frequency	Percent	Valid Percent
1 to 5	61	49.6%	49.6%
6 to 10	34	27.6%	27.6%
11 to 15	16	13.0%	13.0%
16 to 20	7	5.7%	5.7%
Above 20	5	4.1%	4.1%
Total	123	100%	100%

Source: Research Data (2023)

4.3.2 Length of Operations

Table 4.2 displays the distribution of company ages in the research sample, providing information on the longevity and composition of the companies studied. The data is presented in terms of frequency, percentage, and valid percentage.

The majority of the companies fall within the age range of 11 to 20 years, accounting for 29.3% of the total sample. Companies aged 1 to 10 years comprise the second largest group, representing 22.0% of the sample. The distribution gradually decreases as companies age, with 21 to 30-year-old companies making up 19.5%, 31 to 40-year-old companies accounting for 4.1%, and companies above 40 years old constituting 25.2% of the total.

These findings suggest that a significant portion of the companies in the sample have been in existence for over 20 years, with the majority of them being between 11 and 20 years old. Thus, it depicts that most of the companies have worked long enough in the construction industry to have a clearly laid out structure of operations strategies.

Table 4.2: Length of Operations of Large Construction Companies

Age	Frequency	Percent (%)	Valid Percent (%)
11 to 20	36	29.3%	29.3%
Above 40	31	25.2%	25.2%
1 to 10	27	22.0%	22.0%
21 to 30	24	19.5%	19.5%
31 to 40	5	4.1%	4.1%
Total	123	100%	100%

Source: Research Data (2023)

4.3.3 Number of employees

Table 4.3 presents the distribution of companies in the sample based on their respective employee counts. The data is segmented into five categories, each representing a range of employees and is summarized in terms of frequency, percentage, and valid percentage.

The majority of companies in the sample, 31.7%, fall within the employee count range of 21 to 50, making this the largest category. Companies with 1 to 20 employees also represent a significant portion of the sample, at 27.6%. As the employee count range increases, the percentage distribution gradually decreases, with 13.8% of companies having 51 to 100 employees, 11.4% having 101 to 200 employees, and 15.4% employing individuals above 200. It is evident that a considerable proportion of companies have relatively modest employee counts, while fewer have larger workforces. This allocation implicates their commitment to ensuring the long-term success and competitiveness of their operations strategies.

Table 4.3: Number of Employees

No of Employees	Frequency	Percent	Valid Percent
21 to 50	39	31.7%	31.7%
1 to 20	34	27.6%	27.6%
Above 200	19	15.4%	15.4%
51 to 100	17	13.8%	13.8%
101 to 200	14	11.4%	11.4%
Total	123	100%	100%

Source: Research Data (2023)

4.3.4 Annual Revenues Generated

Table 4.4 displays the distribution of companies within the research sample based on their annual revenue generation. The data is categorized into five revenue range groups, with each category represented in terms of frequency, percentage, and valid percentage.

The majority of companies, accounting for 45.5% of the sample, report annual revenues exceeding Ksh. 200 million. The second-largest group comprises companies generating revenue in the range of Ksh. 100 to Ksh. 200 million, representing 22.0% of the total sample. Companies with annual revenues between Ksh. 50 million and Ksh. 100 million make up 11.4%, and those in the Ksh. 10 to Ksh. 50 million range constitute 19.5% of the sample. Companies reporting annual revenues below Ksh. 10 million are the smallest category, representing just 1.6%. The substantial presence of companies with revenue profile exceeding Ksh. 200 million suggests a diverse range of economies of scale within the study sample. This points out that the companies had significant resources that could be allocated to effectively implement operations strategies.

Table 4.4: Annual Revenues generated by the construction companies

Revenue Generated	Frequency	Percent	Valid Percent
Above 200 Million	56	45.5%	45.5%
Ksh.100 to 200 Million	27	22.0%	22.0%
Ksh. 10 to Ksh. 50Million	24	19.5%	19.5%
Ksh.50 to Ksh.100 Million	14	11.4%	11.4%
Below Ksh.10 Million	2	1.6%	1.6%
Total	123	100%	100%

Source: Research Data (2023)

4.4 Extent of Implementation of Operations Strategies by Large Construction Companies

The first objective of this study was to determine the extent of implementation of operations strategies by large construction companies in Nairobi County. In this regard, the major aspects investigated were cost, quality, flexibility, speed and dependability. Participants were asked to rate each of the following aspects as; 1=Highly Disagree, 2=Disagree, 3=Neutral, 4= Agree

and 5=Highly agree. The results are indicated in table 4.5 below which summarizes the descriptive statistics for the ratings given to various aspects of the operations strategies which includes the number of observations (N), the mean rating and the standard deviation for each aspect.

4.4.1 Cost

The research preferred to determine the level of adoption of cost operation strategies by the large construction firms in Nairobi County and the results are presented below. **Table 4.5:**

Table 4.5: Extent of Implementation of Cost

Cost Operations Strategies	Mean	Std. Deviation
The company monitors project expenses closely	4.5122	0.5336
The company seeks cost-effective procurement methods	4.4390	0.5302
The company controls project expenses	4.3740	0.5783
The company focus on minimising construction expenses	4.2602	0.6381
The company considers value engineering to reduce cost	4.0894	0.8299
Overall Score	4.3350	0.6220

Source: Research Data (2023)

Table 4.5 above presents that the company closely monitors project expenses (M=4.51,SD=0.53), commitment to cost-effective procurement methods (M=4.44,SD=0.53), control over project expenses (M= 4.37,SD= 0.58), company focuses on minimizing construction expenses (M=4.26,SD=0.64) and consideration of value engineering to reduce costs (M=4.09,SD= 0.83) were all largely implemented as indicated by the deviations and means.

4.4.2 Quality

The study aimed at determining the level of adoption of quality operations strategies by the large construction firms in Nairobi County and the results are presented below.

Table 4.6: Extent of Implementation of Quality

Quality Operations Strategies	Mean	Std. Deviation
The company conducts regular inspections to ensure quality	4.2602	0.6876
The company follows rigorous quality control processes	4.2358	0.7138
The company emphasizes on maintaining high quality standards	3.9268	0.7806
All stakeholders feedback is documented and acted upon.	3.7073	0.7546
The company invests in training to improve workmanship	3.4309	0.9416
Overall Score	3.9122	0.7756

Source: Research Data (2023)

The results presented in table 4.6 above indicate that the company conducts regular inspections to ensure quality (M=4.26, SD=0.69), the company follows rigorous quality control processes (M=4.24, SD=0.714), emphasizes on maintain high quality standards (M= 3.93, SD=0.78), the aspect all stakeholders feedback is documented and acted upon (M=3.71, SD=0.75) and the company invests in training to improve workmanship (M=3.43, SD= 0.94 suggesting a relatively higher level of implementation among construction companies.

4.4.3 Flexibility

The study aimed at determining the level of adoption of flexibility operations strategies by the large construction firms in Nairobi County and the results are presented below.

Table 4.7: Extent of Implementation of Flexibility

Flexibility Operations Strategies	Mean	Std. Deviation
The company has adequate resources to deal with varying clients demands	4.3902	0.6355
The company offers customizable solutions to clients	4.1382	0.5481
The company can easily adapt to changes in the project requirements	4.1057	0.5699
The company can quickly switch between different type of projects	3.9837	0.8491
The company adjusts its operations based on customer demands.	3.8862	0.7488
Overall Score	4.1008	0.6703

Source: Research Data (2023)

The results are presented in table 4.7 above indicate company has adequate resources to deal with varying clients demands (M=4.39,SD=0.64) , offering customizable solutions to clients (M=4.14, SD=0.548), the company can easily adapt to changes in the project requirements (M=4.11, SD=0.57), ability to switch quickly between different types of projects (M=3.98,SD=, 0.85) and finally the company adjusts its operations based on customer demands (M= 3.89, SD= 0.75), the suggesting a relatively high level of implementation.

4.4.4 Speed

The study aimed at determining the level of adoption of speed operations strategies by the large construction firms in Nairobi County and the results are presented below.

Table 4.8: Extent of Implementation of Speed

Speed Operations Strategies	Mean	Std. Deviation
The company implements efficient project scheduling	4.2764	0.7499
The company prioritises quick response time to client requirements	4.2520	0.5216
The company aims for fast project completion.	4.2358	0.7364
The company has a well-documented project plan for each project delivery.	4.2033	0.7238
The company adopts construction methods that accelerate timeliness.	4.1545	0.6406
Overall Score	4.2244	0.6745

Source: Research Data (2023)

The results are presented in table 4.8 above indicate that the company implements efficient project scheduling (M=4.28, SD=0.75), prioritizing on quick response time to client requirements (M= 4.25, SD 0.52), the company aims for fast project completion (M=4.24,SD= 0.74), the company has a well-documented project plan for each project delivery (M=4.20SD=0.724) and adopting construction methods that accelerate timeliness (M=4.15,SD=0.64) suggesting a relatively high level of implementation.

4.4.5 Dependability

The study aimed at determining the level of adoption of dependability operations strategies by the large construction firms in Nairobi County and the results are presented below.

Table 4.9: Extent of Implementation of Dependability

Dependability Operations Strategies	Mean	Std. Deviation
The clients trust that the company will deliver on its commitments	4.3577	0.5886
The company is consistent in providing dependable construction services	4.2520	0.6219
The company effectively handles unexpected challenges that arise during project execution.	4.1870	0.6053
The company delivers its projects without significant delay	3.9512	0.7981
The company meets its project deadlines as promised	3.8618	0.7926
Overall Score	4.1219	0.6813

Source: Research Data (2023)

The results are presented in table 4.9 above indicates that the clients trust that the company will deliver on its commitments (M=4.36,SD=0.59), consistent in providing dependable construction services (M= 4.25,SD=0.62), the company effectively handles unexpected challenges that arise during project execution (M=4.19, SD=0.61), the company delivers its projects without significant delay (M=3.95, SD=0.799) and the company meets its project deadlines as promised (M=3.86, SD 0.79) indicating a large level of implementation of dependability strategies by the large construction companies.

4.4.5 Summary of Operations Strategies

Operations strategies were ranked according to their adoption levels and table 4.10 illustrates the results. The standing of operations strategies was tabulated in a descending order based on the extent of adoption.

Table 4.10: Summary of Extent of Implementation of Operations Strategies

Operations strategies	Mean	Std. Deviation	Ranking
Cost	4.3350	0.6220	1
Speed	4.2244	0.6745	2
Dependability	4.1219	0.6813	3
Flexibility	4.1008	0.6703	4
Quality	3.9122	0.7756	5

Source: Research Data (2023)

Table 4.10 tabulates that Cost was firstly ranked as per its adoption level since it was largely adopted with the Mean of 4.34 and Standard Deviation of 0.62. Secondly ranked by the Construction companies in Nairobi County was Speed which was largely adopted as supported by the general Mean score of 4.22 and deviation of 0.67. The overall score indicates that Dependability was also largely adopted by the construction companies with the mean of 4.12 and S.D of 0.68 and thus is ranked third based on the extent of adoption. Lastly ranked is Quality which was adopted to a large extent (M=3.91, SD=.78) by the construction companies in Nairobi County as indicated by the deviation and mean.

4.5 The Effect of Operations Strategies on Firm Performance

The second objective aimed to investigate the how operations strategies impact the overall performance of large construction companies operating in Nairobi County. To evaluate this relationship, the study employed multiple regression analysis to assess the correlations between various operations strategies metrics and key aspects of firm performance. These composite performance metrics encompassed the financial status of the company, its internal processes, customer focus, and learning and growth, as recommended by the Balanced Scorecard (BSC) framework. The findings are in 4.10,4.11 and table 4.12.

Table 4.10: Regression Coefficient of Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-0.192	0.155		-1.237	0.219
Cost	-0.0470	0.066	-0.039	-0.7140	0.477
Quality	0.394	0.047	0.417	8.452	0
Flexibility	0.1900	0.067	0.174	2.8560	0.005
Speed	0.058	0.067	0.056	0.872	0.385
Dependability	0.4380	0.057	0.43	7.6230	0

a. Performance

Source: Research Data (2023)

The regression equation with the composite measure of firm performance as the dependent variable is

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \varepsilon$$

The coefficients represent the relationships between the independent variables and the dependent variable. The findings obtained that Cost ($t = -0.714$, $p = .477$), Quality ($t = 8.452$, $p < .001$), Flexibility ($t = 2.856$, $p = .005$), Speed: ($t = 0.872$, $p = .385$) and Dependability ($t = 7.623$, $p < .001$). In this multiple regression model, Quality, Flexibility and Dependability were found to have significant positive effects on Performance as it is superior to the critical value of 2.28, while Cost, Speed and the constant (intercept) did not have statistically significant effects.

Table 4.11: Model Summary of Firm Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.949 ^a	0.9	0.896	0.1924

a. Predictors: (Constant), Cost, Quality, Flexibility, Speed and Dependability

Source: Research Data (2023)

As illustrated in 4.11 the R Square value was .900, indicating that 90% of the variance in the Performance can be explained by the implementation of Operations Strategies. The variance of 10% which cannot be explained is attributed to other variables in the model and pure chance factors. This shows that it was a very good predictor of performance.

Table 4.12: ANOVA for Performance

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	39.0840	5	7.817	211.1170	.000 ^b
Residual	4.332	117	0.037		
Total	43.4160	122			

a. Performance

b. Predictors: (Constant), Cost, Quality, Flexibility, Speed and Dependability

Source: Research Data (2023)

At 0.005 significance level, Table 4.12 displays a significant regression model ($F = 211.117$) which is greater than the critical value of 2.28 indicating that the independent variables collectively have a significant effect on the dependent variable (Performance) of large construction companies in Nairobi County. This is reinforced by the fact that the $p < .001$ does

not surpass 5%. Thus, the study model is noteworthy and appropriate for predicting performance.

4.6 Discussion of Research Findings

The study was steered by two objectives and the study achieved all. On objective one, which was to determine the adoption of operations strategies by the large construction firms in Nairobi County, the research found that a significant proportion of large construction companies in Nairobi County place a high emphasis on key operations strategies. These strategies encompass cost, quality, speed and dependability in project execution, and flexibility in adapting to changing demands and conditions. The strategies were tailored to meet the unique needs of the construction companies and include measures for cost reduction, quality assurance, acceleration of project timelines, ensuring dependability in project execution, and enhancing adaptability to changing market conditions.

Companies that effectively employed costs as part of their operations strategies was firstly ranked since it was largely adopted with the Mean of 4.33 and Standard Deviation of 0.62. This strategy was highly prioritized by implementing expense monitoring and control, effective procurement methods and value engineering to reduce costs. Ogolla (2013) asserts that organizations may try to articulate its position in the market in number of ways thus the above are some of the ways of adjusting to cost-efficient practices for improved profit margins and resource allocation in the areas of the business by the large construction companies.

A study by Jones (2018) identified stagnation of production as a result of poor operations strategies as the key challenges facing. The findings on the study shows that large construction companies Construction firms focused on speed operations strategy which was secondly ranked with the Mean of 4.22 and Standard Deviation of 0.67. the companies prioritized on fast completion of projects, effective scheduling, quick response time to client's requirements and adoption of construction methods that accelerated timeliness.

The findings on the adoption showed that large construction companies have adopted strategies on flexibility which was thirdly ranked with the Mean of 4.10 and Standard Deviation of 0.67. Adapting to changing market conditions, customer demands, offering customizable solutions to clients and the ability to switch between different project contributed to the success of large

construction companies in Nairobi County. The findings are in tandem with those of Munyiri, Rintari and Moguche (2022), who found that flexibility was an important factor and has a capacity of affecting performance.

Dependability was fourthly ranked with the Mean of 4.12 and Standard Deviation of 0.68. It was demonstrated by companies meeting deadlines as promised to the clients, delivery without significant delays, consistency in operations and effective handling of challenges that raised during project execution. The findings are in tandem with those of Chirchir (2022), which found that dependability among other competitive priorities led to greater firm performance with the changing customer requirements.

Companies that prioritize quality as an operations strategy was lastly ranked with the Mean of 3.91 and Standard Deviation of 0.78 which indicated high implementation by the large construction companies in Nairobi County. The outcome coincides with that of Wambugu and Waiganjo (2015) who found that high-quality goods led to improved customer relationships and market share growth. Firms employing customer-tailored high-quality products were more profitable. Ensuring the quality of construction projects positively impacted their overall performance.

The second objective aimed at finding out the impact of operations strategies, including cost, quality, speed, dependability and flexibility, on the performance of large construction companies in Nairobi County. The Balanced Scorecard framework was used to measure firm performance, providing a comprehensive view of their overall effectiveness in companies.

The research found that large construction companies that implemented operations strategies consistently performed well across all dimensions of the Balanced Scorecard. The findings are supported by the Resource Based View, Wernerfelt (1984), Rumelt (1984) and Barney (1991) as its postulation of a competitive advantage that directly affect firm performance through the implementation of value-increasing strategies. The implementation of operations strategies accounted for 90% on the performance of large construction companies in Nairobi County. Their strong performance across the dimensions of the Balanced Scorecard illustrates the value of these operations strategies. These provides valuable information for construction industry leaders looking to enhance their operations and improve overall firm performance.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Initiating with a study summary, this chapter proceeds to present conclusions, recommendations and concludes with the limitations of the study. The primary study objectives were to determine the extent of implementation of operations strategies and establish the effect of these strategies on overall firm performance of large construction companies.

5.2 Summary of the Findings

The study conducted a census of all 186 large construction companies in Nairobi County, employing a descriptive research design. To collect primary data, structured questionnaires were distributed to project managers or their counterparts in construction organizations. The surveys were disseminated by email and a drop-and-pick approach. A total of 123 responds were collected from participants, which were judged eligible for further data analysis.

The respondents had undertaken an adequate number of projects annually, which emphasized the need to investigate the operations strategies they employ to manage this workload effectively. The majority of companies had been in operation between 11 and 20 years old. This shows that most of the respondents have worked long enough in the organizations to have a clear understanding of operations within the construction companies. A considerable proportion of companies have relatively modest employee counts, while fewer have larger workforces offering insights into the company's resource allocations. Lastly, the majority reported annual revenues exceeding Ksh. 200 million, which significantly enriched the study by offering insights into the effectiveness of operations strategies across diverse company profiles.

The study sought to establish the level of implementation of operations strategies by large construction companies in Nairobi County. According to the data, the majority of companies in Nairobi County have extensively implemented operations strategies. The study identified cost, speed, dependability, flexibility, and quality, in that order, as the

primary operations strategies implemented to a significant extent by large construction companies.

The second goal was to establish the effect of the implementation of operations strategies on the performance of large construction companies in Nairobi County. The study employed the Balanced Scorecard framework to measure firm performance comprehensively, considering customer happiness, financial performance, internal procedures, and innovation and learning. The impact of cost, quality, flexibility, speed and dependability operations strategies on the performance of large construction enterprises in Nairobi County was investigated using multiple regression. The results from the ANOVA revealed that quality, flexibility, and dependability had statistically significant and positive effects on performance, while cost and Speed did not exhibit statistically significant effects.

5.5 Conclusion of the study

The majority of large construction firms in Nairobi County have largely adopted operations strategies, based on the findings. These strategies that have been implemented from the greatest to the lowest rank were; cost, speed, flexibility, dependability and quality.

According to the study, operations strategies have a beneficial and important effect on the performance of large construction enterprises in Nairobi County. According to the findings, the application of the operations strategies enhanced the holistic performance by considering customer happiness, financial performance, internal procedures and innovation and learning.

5.5 Limitations of the Study

This study encountered several limitations. Firstly, it exclusively concentrated on large construction companies in Nairobi County, excluding others across different counties in Kenya due to financial constraints and time limitations. The focus on contractors represents a narrow perspective, as other sectors within the construction industry, such as consulting, suppliers, and manufacturers, which also adopt operations strategies, were not included in the study.

Furthermore, this study utilized questionnaires to collect data and limited its data sources to solely primary data. The competitive priorities' characteristics pertaining to operations strategy were the subject of the research in relation to firm performance. It is possible that other factors that could have been significant were overlooked, that could have an effect on how thorough the research was. Finally, the operations strategies, which are independent, and firm performance, which is the dependent variable, are the only two variables included in this research study.

5.6 Recommendations for Further Studies

To allow for the generalizability of the study findings, additional research into operations strategies and performance addressing other large construction enterprises in other counties is needed. Moreover, it is suggested that future research include additional construction sectors such as consulting businesses, suppliers, contractors in other NCA Categories, and manufacturing firms other than large construction organizations. Additionally, researchers should consider examining the impact of operations strategies on individual performance, given that this study utilized the Balanced Scorecard as a composite measure of firm performance.

REFERENCES

- Aggrey, N., Eliab, L., & Joseph, S. (2010). Export Participation and Technical Efficiency in East African Manufacturing Firms. *Current Research Journal of Economic Theory*, 2(2), 62-68.
- Akech, M. (2020). The Kenya Gazette. CXXII-No.110(Special Issue No.3973), 2137 to 2327. Nairobi: Authority of Republic of Kenya.
- Alarcón, L. F., & Bastías, A. (1998). Computer aided strategic planning in construction firms. *CIB Report*, 25-34.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120.
- Cartlidge, D. (2018). New Aspects of Quantity Surveying, *Routledge Taylor & Francis group, London and Network*, 4,16-22.
- Chirchir, M. Kipkorir. (2022). Supply chain integration, competitive Advantage, Environmental Dynamics and Performance of Large-Scale Manufacturing Firms in Kenya. *Unpublished Doctoral Dissertation, University of Nairobi*.
- Competition Authority of Kenya. (2017). The construction industry, Analysis of the state of competition.
- Emmanuel Mweni Thoya. (2023). Operational Level strategies and organizational performance of Four-Star Hotels in Mombasa County, Kenya. *International Academic journal of Human Resource and Business Administration*, 4(2), 228-256.
- Faut Karaev. (2023). The impact of competitive strategies on firm performance: The mediating role of Market Orientation and Innovation; Empirical study of the Georgian Beverage Sector. *Technology and Investment*, 14, 119-135.
- Genga, C. A. (2019). Lean information logistics management practices and operational performance of broadcast television stations in Kenya. (*Unpublished MBA project, University of Nairobi*).
- Investopedia Team. (2022, March 11). *What Is the Porter Diamond?* Investopedia. Retrieved October 3, 2022, from <https://www.investopedia.com/terms/p/porter-diamond.asp>
- Jebiwott, M. K. (2021). Operational Decisions and Performance of Reatil Supermarket in Uasin Gishu County, Kenya .
- Jones, K. (2018). Four major challenges facing construction industry. Retrieved May 8th, 2022, from <https://www.constructconnect.com/blog/4-major-challenges-facing-the-construction-industry>
- Kaplan, R. S., & Norton, D. P. (1992). The balanced scorecard: measures that drive performance. *Harvard business review*, 83(7), 71-79.
- Kemunto, A. E. (2016). Operations Management Practices and Performance of Telecommunications Firms in Kenya. *Unpublished Doctoral Dissertation, University of Nairobi*.

- Kibos, K. E. (2018). Effect of optimization practices on the performance of construction industry in Uasin Gishu County. *Unpublished Doctoral Dissertation, Jomokenyatta university of Agriculture and Technology.*
- Kiloh, K., Magutu, P., & Nyaanga, O. (2020). Operations strategies and competitiveness of Kenyan cooperative sector. *Noble international Journal of social science research*, 22-33.
- Kirui, F. J. (2018). Effect of operations strategy on the performance of state corporations in Kenya. *Unpublished Doctoral Dissertation, University of Nairobi.*
- KNBS Economic survey 2023. Nairobi: *Kenya National Bureau of Statistics*,67.
- Kraaijenbrink, J., Spender, J. C., & Groen, A. J. (2010). The resource-based view: A review and assessment of its critiques. *Journal of Management*, 36(1), 349-372.
- Lavassani, K. M., & Movahedi, B. (2010). Critical Analysis of the Supply Chain management Theories. *POMS 21st Annual Confrence*. Vancouver,Canada.
- Lewis, M. (2008). New Strategies of Control: Academic Freedom and Research Ethics Boards. *Qualitative Inquiry*, 14(5), 684-699.
- Magutu, P., Ndubai, R., Mbeche, I., Mwove, M., Nyaanga, R. & Nyamwange, O., (2010). Formulating and implementation of operations strategies used in solid waste management: Case study of city council of Nairobi. *Journal of African research in business & technology*, 21.
- Mekić, E. (2014). Supports and critiques on porter's competitive strategy and competitive advantage. *Regional Economic Development*, 24, 651.
- Munyiri, M., Rintari, N., & Moguche, A. (2022). Exploration on the effect of operations strategy on performance of Media council of Kenya. *Journal of Business and Strategic Management*, 7(3), 30-48.
- National Construction Authority, (2020). *National Construction Research Agenda (NaCRA 2020-2024)*. National Construction Authority: Nairobi, 11-14.
- Ngina, W. E. (2019). Operations strategy and performance of management consultancy firms in Nairobi County, Kenya, 144-156. *Unpublished Doctoral Dissertation, Kenyatta University.*
- Njenga, R. (2018). Operations Strategies and Operational Performance of Architectural Consulting Firms in Nairobi. *Unpublished MBA Project, University of Nairobi.*
- Njoroge, S. G. (2013). Operations strategies in Kenya's real estate sector. *Unpublished doctoral dissertation, University of Nairobi.*
- Nwachukwu, C., & Chladkova, H. (2019). Firm Resources, Strategic Analysis Capability and Strategic Performance: Organizational Structure as Moderator. *International Journal for Quality Research*, 13(1).
- Ogolla, N. O. (2013). Operations strategy and performance among motor vehicle assemblers in Kenya (*Unpublished MBA project, University of Nairobi*).

- Onchagwa, M. C. (2021). An Investigation of the Effectiveness of the National Construction Authority (NCA) in Curbing Malpractices in the Kenyan Construction Industry (*Unpublished Doctoral dissertation, University of Nairobi*).
- Ong'era, B. J. M., & Kepha, O. (2021). Influence of Strategic Management Best Practices on Performance of Commercial Building Projects Registered by National Construction Authority in Nairobi City County, Kenya. *Journal of Business and Strategic Management*, 6(3), 21-43.
- Rumelt, P. R. (1984). Towards a Strategic Theory of the Firm. *Competitive Strategic Management* 556-559.
- Park, C. S., Jang, H. S., Choi, S. I., & Cho, H. C. (2010). Comparative analysis of strategic planning in construction firms. *Journal of Asian Architecture and Building Engineering*, 9(1), 25-30.
- Porter, M. E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. 1985. New York: FreePress, 43, 214.
- Resch, M., Buehler, J., Klausen, M., & Sumper, A. (2017). Impact of Operation Strategies of Large-Scale Battery Systems on Distribution Grid Planning in Germany. *Renewable and Sustainable Energy Reviews*, 74, 1042-1063.
- Schindler, D. R. (2014). *Business Research Methods*. McGraw-Hill, London (12) 21.
- Scott, W. R. (1987). The Adolescence of Institutional Theory. *Administrative Science Quarterly*, 493-511.
- Shakya, S. (2013). *Operations and Strategy (5 Dimensions of Competitiveness)* Retrieved September 6 ,2023 <http://shakyafernando.blogspot.com/2013/03/operations-and-strategy-5-dimensions-of.html>
- Simu, H. L. (2015). Understanding Construction Contractors and their Operation Strategies. *Science Direct*, 53-55.
- Suddaby, R. (2010). Challenges for institutional theory. *Journal of management inquiry*, 19(1), 14-20.
- Van Noppen, A. (2012). The ABC's of affordable housing in Kenya. *New York City: Acumen Fund* 2-9.
- Voss, C. A., Åhlström, P., & Blackmon, K. (1997). Benchmarking and operational performance: some empirical results. *International Journal of Operations & Production Management*, 1048.
- Wambugu, W. C., & Waiganjo, E. W. (2015). Effects of strategic management practices on organizational performance of construction companies in Nairobi City County, Kenya. *International Academic Journal of Human Resource and Business Administration*, 1(4), 41-51.
- Wandiga, E., Kilika, J. M., & James, R. (2019). The Effect of Operations Strategy on Performance of Consultancy Firms? An Empirical Survey of Management Consultancy Firms in Nairobi, Kenya. *Journal of Economics and Business*, 2(2).
- Wernerfelt, B. (1984). A resource-Based View of the Firm. *Strategic management journal*, 5, 171-180.

APPENDICES

Appendix I: Questionnaire

Kindly answer the questions as truthfully as possible. The information provided will be treated with utmost confidentiality and no information should be provided that would identify you in person. The information will not be used for any economic or any other gain apart from the sole purpose of academic knowledge. The study seeks to establish the **EFFECT OF OPERATIONS STRATEGIES ON PERFORMANCE OF CONSTRUCTION COMPANIES IN NAIROBI COUNTY.**

SECTION A: GENERAL INFORMATION

1. What is the name of the company (Optional) _____
2. How many construction projects does the company undertake in average per year?
 - A. 1 to 5
 - B. 6 to 10
 - C. 11 to 15
 - D. 16 to 20
 - E. Above 20
3. How old is the company (Years)?
 - A. 1 to 10
 - B. 11 to 20
 - C. 21 to 30
 - D. 31 to 40
 - E. Above 40
4. How many permanent and pensionable employees does the company have?
 - A. 1 to 20
 - B. 21 to 50
 - C. 51 to 100
 - D. 101 to 200
 - E. Above 200

5. What is the average annual revenue generated by the company
 - A) Below Ksh. 10 million
 - B) Ksh. 10 million to Ksh. 50 million
 - C) Ksh 50 million to 100 million
 - D) Ksh 100 million to 200 million
 - E) Above Ksh 200 million

RULES TO FILL PART B AND C

Kindly respond as truthfully as possible the extent to which the following operations strategies have been implement in your firm. In the questionnaire mark 1=Highly Disagree, 2=Disagree, 3=Neutral, 4= Agree and 5=Highly agree.

SECTION B: EXTENT OF IMPLEMENTATION OF OPERATIONAL STRATEGIES

COST

	Statement	1	2	3	4	5
1.	The company focus on minimising construction expenses					
2.	The company seeks cost-effective procurement methods					
3.	The company monitors project expenses closely					
4.	The company controls project expenses					
5.	The company considers value engineering to reduce cost					

QUALITY

	Statement	1	2	3	4	5
1.	The company emphasises on maintaining high quality standards					
2.	The company follows rigorous quality control processes					
3.	The company conducts regular inspections to ensure quality					
4.	The company invests in training to improve workmanship					
5.	All stakeholders feedback is documented and acted upon.					

FLEXIBILITY

	Statement	1	2	3	4	5
1.	The company can easily adapt to changes in the project requirements					
2.	The company offers customizable solutions to clients					
3.	The company adjusts its operations based on customer demands.					
4.	The company can quickly switch between different type of projects					
5.	The company has adequate resources to deal with varying clients demands					

SPEED

	Statement	1	2	3	4	5
1.	The company aims for fast project completion.					
2.	The company implements efficient project scheduling					
3.	The company prioritises quick response time to client requirements					
4.	The company adopts construction methods that accelerate timeliness.					
5.	The company has a well-documented project plan for each project delivery.					

DEPENDABILITY

	Statement	1	2	3	4	5
1.	The company meets its project deadlines as promised					
2.	The company delivers its projects without significant delay					
3.	The clients trust that the company will deliver on its commitments					
4.	The company is consistent in providing dependable construction services					
5.	The company effectively handles unexpected challenges that arise during project execution.					

SECTION C: PERFORMANCE

	Statement	1	2	3	4	5
1.	Financial status					
	The company has achieved its financial goals in the past year					
	The company has well managed its financial resources ensuring stability					
	The company is making profits and managing costs					
	The company has maintained a healthy balance between revenue and expenses					
2.	Internal processes					
	The company's internal processes are streamlined for project management					
	The company's processes are standardised to ensure consistent results					
	The company has adapted its processes over time					
	Communication and collaboration among different departments of the company are efficient					
3.	Customer focus					
	The company well understands and meets the needs of its clients					
	Customers are satisfied with the company's responsiveness to inquiries and issues					
	The company gathers and acts upon customer feedback					
	The company has the ability to build and maintain strong customer relationships.					
4.	Learning and growth					
	The company invests much in training and development of its employees					
	The company is effective in fostering a culture of continuous learning					
	The company encourages innovation and new ideas					
	The company has the ability to adapt to changing market trends and technologies					

THANKS!

Appendix II: List of Large Contractors in Nairobi County

	Nca Reg. N	Contractor's Name		Nca Reg. No.	Contractor's Name
1	27629/B/1116	Adwaa Alkhalil Construction Company Limited	37	4818/B/0314	Landmark Holding Ltd
2	114/B/0314	Afcons Africa Ltd	38	4837/B/0314	Laton Engineering Ltd
3	15750/B/0716	African Sawyers Limited	39	58378/B/0720	Lavasa Construction Company Limited
4	150/B/0314	Aggregate Construction Limited	40	4847/B/0514	Lawton Limited
5	267/B/0314	Allan Dick & Company Limited	41	4865/B/0314	Lee Construction Ltd
6	22567/B/0216	Amber Construction Limited	42	24512/B/0616	Leo Design Ltd
7	22159/B/0116	Ambrosial Interior Solutions Limited.	43	11060/B/0714	Linksoft Intergrated Services(E.A) Ltd
8	14522/B/1114	Ancarta Construction Company Limited	44	5055/B/0314	Lunao Enterprises Limited
9	419/B/0214	Aqsa Investment Ltd	45	5123/B/0314	Machiri Limited
10	454/B/0314	Arcon Works Ltd	46	5153/B/0816	Magnate Ventures Ltd
11	67902/B/0621	Associated Construction Company (Kenya) Limited	47	12426/B/0914	Mahesh And Tirth Construction Ltd
12	546/B/0214	Atlas Plumbers & Builders (K) Ltd	48	5230/B/0314	Mandeep Singh Construction K Ltd
13	610/B/0314	Bahati Industries Ltd	49	5259/B/0415	Manyota Limited
14	31/F/B/001/01 219	Baran Telecom Networks Kenya Limited	50	5387/B/0316	Mashin Construction Company Limited
15	775/B/0214	Benisa Construction Limited	51	5407/B/0622	Master Power Systems Ltd
16	40536/B/0514	Biometrics Technology Limited	52	5434/B/0314	Matways Civil & Construction Ltd
17	18074/B/0416	Blue Valley Enterprises Limited	53	5541/B/0314	Mehlam Construction Ltd
18	966/B/0314	Bomco Building Contractors	54	5676/B/0314	Milicon's Limited
19	974/B/0314	Bonfide General Contractors Limited	55	20304/B/0915	Mizphah Contractor Agency Limited
20	1057/B/0214	Brisma Africa Ltd	56	15686/B/0215	Motorways Constructions Limited
21	22978/B/0316	Build Arctic Limited	57	14508/B/0915	Mwembe & Mwembe Associates Ltd
22	11619/B/0814	C.M. Construction (Ea) Limited	58	5092/B/0314	N.K Brothers Ltd
23	1160/B/0214	Cadg East Africa Ltd	59	59633/B/0121	Nairobi Enterprises Limited
24	1188/B/0214	Canton Building & Construction Ltd	60	12446/B/1014	Nel Enterprises Ltd
25	1189/B/0922	Canton Enterprises Ltd	61	15585/B/0215	Nesthouse Group Limited
26	1241/B/0314	Ceabud Eng. Services Ltd	62	14470/B/0116	Nightigale Enterprises Ltd
27	1253/B/0314	Cementers Ltd	63	11615/B/0814	Nilkanth Builders Limited
28	1275/B/0314	Centurion Engineers & Builders Ltd	64	6340/B/0314	Nirma Construction Co Ltd
29	1386/B/0314	China Fushun No. 1 Building Eng. Co. Ltd	65	16655/B/0416	Nirma Holdings Limited
30	1470/B/0314	Clasico Builders	66	14732/B/0115	Northlink General Contractors & Suppliers Limited
31	40224/B/0418	Clime Builders (E.A) Limited	67	23359/B/0416	Oasis Technical And Consulting Limited
32	15957/B/0215	Concordia Building & Civil Engineering Co Limited	68	6549/B/0314	Odd Mac Engineering
33	1584/B/0214	Corban Construction Ltd	69	6633/B/0314	Orbit Enterprises Ltd
34	12969/B/1014	Cosmocare Limited	70	10494/B/0216	Pacific General Works Limited
35	1660/B/0314	Dabasia Builders Ltd	71	6732/B/0314	Parbat Siyani Construction Ltd
36	16660/B/0315	Dalab Construction Company Limited	72	11940/B/0814	Parklane Construction Ltd

73	1701/B/1114	Dallo Holdings Ltd	111	56991/B/0420	Petreshah Kenya Limited
74	1718/B/0314	Danaff Kenya Company Ltd	112	6897/B/0314	Philafe Engineering Ltd
75	40325/B/0414	David Engineering (K) Limited	113	6921/B/0314	Pinnie Agency Ltd
76	10898/B/0714	Dayah Construction Co Limited	114	6962/B/0616	Polish Contractors Co. Limited
77	62189/B/1020	Deeqa Construction And Water Well Drilling Company	115	7005/B/0722	Powercom Ltd
78	30327/B/0414	Derow Construction Company Ltd	116	7007/B/0314	Powergen Technologies Ltd
79	16073/B/0215	Devshibhai & Sons Limited	117	11071/B/0714	Questworks Ltd
80	1930/B/0314	Dinesh Construction Co. Ltd	118	17101/B/0415	Rabdiya Construction Co. Ltd
81	1946/B/0314	Diwafa Investment Ltd	119	10261/B/0314	Ray Engineering & Construction International Limit
82	2034/B/0314	Dunhill Building Contractors Ltd	120	7574/B/0314	Rural Distributors Enterprise
83	22012/B/0116	Eacon Contracting Limited	121	41331/B/0618	Sahjanad Construction Limited
84	2070/B/0214	Eagle Realty Limited	122	24250/B/0616	Sahjanand Builders Limited
85	2112/B/0316	Econo Build Limited	123	7781/B/0314	Sava Builders
86	2148/B/0314	Efil Enterprises Ltd	124	20261/B/0915	Seokang Limited
87	14993/B/0216	E-Gap Solutions Limited	125	12696/B/1014	Shanga Engineering Works Limited
88	11753/B/0814	Electrogen Technologies (International) Limited	126	16450/B/0315	Shinehome International (Kenya) Company Limited
89	2200/B/0314	Elemech Eng. K Ltd	127	7984/B/0314	Shyam General Merchants Limited
90	29196/B/0117	Emeshh Builders	128	8080/B/0214	Sino-Saido Construction Company Ltd
91	2313/B/0314	Endeavours Construction Co. Ltd	129	8105/B/0314	Skillman Construction Ltd
92	2336/B/0314	Epcu Builders Ltd	130	8118/B/0314	Slok Construction Ltd
93	2350/B/0314	Erdemann Co. (K) Ltd	131	8137/B/0214	Smruti Builders Co. Ltd
94	2362/B/0314	Ernie Campbell & Co. Ltd	132	24439/B/0616	Sobetra Kenya Ltd
95	2374/B/0314	Esteele Construction Limited	133	14580/B/1114	Soil And Water Masters Limited
96	2381/B/0716	Etrade Company Limited	134	12219/B/1115	Soon & Seel Building & Civil Construction
97	23797/B/0516	Exotic Crafts Limited	135	16787/B/0315	Space And Style Limited
98	2464/B/0214	Faim K. Construction Co. Limited	136	40468/B/0414	Steel Structures Ltd
99	2506/B/0314	Farjano Construction Co Ltd	137	8325/B/0314	Stellar Builders
100	2539/B/0915	Fenke Agencies Limited	138	8338/B/0314	Stepal Builders Co. Ltd
101	2545/B/0715	Fetemash And Leesh Contractors Limited	139	8419/B/0616	Sun - Jua Builders Ltd
102	2585/B/0314	Flooring & Interiors Ltd	140	8437/B/1022	Superfit Steelcon
103	14547/B/1115	Fourway Construction Company Limited	141	8477/B/0314	Swiss Grade Consult Limited
104	2741/B/0214	Gambella Investment Ltd	142	3077/B/0914	Tareef Enterprises Limited
105	17622/B/0515	Gateway Innovations Ltd	143	15004/B/0115	Terra Firma Africa K Ltd
106	2916/B/1022	Gilbertson Trading Company Limited	144	10272/B/0214	Terracraft (K) Limited
107	16831/B/0315	Giriraj Builders Limited	145	8738/B/0214	Three N International Ltd
108	2955/B/0516	Global Construction Company Limited	146	10307/B/0514	Tisco Construction Limited
109	15466/B/0215	Graynon Holdings Limited	147	11878/B/1216	Top Choice Surveillance Limited
110	3409/B/0315	H Young Company E.A Limited	148	8886/B/0314	Trapoz Contractors Limited

149	3114/B/0314	H.K Builders & General Contractors Limited	168	73984/B/0322	Trojan Secretaries Limited
150	3137/B/1215	Hajar Serices Limited	169	8969/B/0314	Tulsi Construction Co
151	24496/B/0616	Infinity Development Limited	170	18612/B/0715	Tunasco Insaat Anonim Sirketi
152	3520/B/0214	Interlink Industries	171	8999/B/0314	Twiga Construction Co.
153	15746/B/0215	Interways Works Limited	172	9047/B/0314	Unispan Ltd
154	3535/B/0314	Intex Construction Ltd	173	9129/B/0314	Vertex Builders Ltd
155	11842/B/0517	Iota Engineering And Construction Limited	174	9140/B/0116	Vibrant Construction Limited
156	40359/B/0414	Irrico International Limited	175	12983/B/1014	Victoria Engineering Company Limited
157	3609/B/1115	Jadubhai&Sons Limited	176	9170/B/0314	Vinayak Builders Ltd
158	3821/B/1014	Jilk Construction Company Limited	177	9184/B/0314	Vishak Builders Ltd
159	40329/B/0215	Kalalu Building Contractors	178	9186/B/0314	Vishnu Builders & Developers Ltd
160	15625/B/0616	Kartar Singh Dhupar And Company Limited	179	12889/B/1014	Wadia Construction Company Ltd
161	30651/B/0417	Kiburu Enterprises Limited.	180	15285/B/0316	Waki Clearing & Forwarding Agents Limited
162	15581/B/0215	Kingsley Construction Company Limited	181	27570/B/1016	Wardy Communications Limited
163	4641/B/0314	Kiu Construction Ltd	182	9303/B/0314	Warren Enterprises Limited
164	60684/B/0820	Koch Construction Limited	183	16618/B/0314	White Space Technologies
165	18973/B/0715	Kryce Limited	184	9508/B/1114	Wotech Kenya Limited
166	27762/B/1016	Kyanite Construction Company Limited	185	17119/B/0415	Yellow House Limited
167	4789/B/0314	Lafey Construction Co. Ltd	186	9612/B/0314	Zenith Steel Fabricators Ltd

Source: Researcher (2023)

Appendix III: Research License



REPUBLIC OF KENYA



**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Ref No: **211589**

Date of Issue: **03/November/2023**

RESEARCH LICENSE



This is to Certify that Ms. FAITH NDUKU MBATHA of University of Nairobi, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act; 2013 (Rev.2014) in Nairobi on the topic: Operations Strategies and Performance of Large Construction Companies in Nairobi County for the period ending: 03/November/2024.

License No: **NACOSTIP/23/30911**

211589

Applicant Identification Number


Director General
**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY &
INNOVATION**

NOTE: This is a computer-generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.



See overleaf for conditions

Appendix IV: Introduction Letter



UNIVERSITY OF NAIROBI
FACULTY OF BUSINESS AND MANAGEMENT SCIENCES
OFFICE OF THE DEAN

Telegram: "Varsity",
Telephone: 020 491 0000
VOIP: 9007/9008
Mobile: 254-724-200311

P.O. Box 30197-00100, G.P.O.
Nairobi, Kenya
Email: fab-graduatestudies@uonbi.ac.ke
Website: business.uonbi.ac.ke

Our Ref.D61/H 0 6 2 6 / 2 0 1 8

October 21, 2023

National Commission for Science, Technology and Innovation
NACOSTI Headquarters
Upper Kabete, Off Waiyaki Way
P. O. Box 30623- 00100
NAIROBI

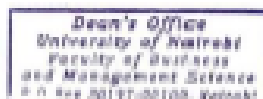
RE: INTRODUCTION LETTER: FAITH NDUKU MBATHA

The above named is a registered Masters in Business Administration candidate at the University of Nairobi, Faculty of Business and Management Sciences. She is conducting research on "*Operations Strategies and Performance of Large Construction Companies in Nairobi County*".

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the Project.

The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your co-operation will be highly appreciated.



PROF. JAMES NJIHIA
DEAN, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES

JN/sg

OPERATIONS STRATEGIES AND PERFORMANCE OF LARGE CONSTRUCTION COMPANIES IN NAIROBI COUNTY

ORIGINALITY REPORT Name: Dr. Kipkorir M. Chirchir Sign:  Date: 21/11/2023

14%
SIMILARITY INDEX

13%
INTERNET SOURCES

3%
PUBLICATIONS

5%
STUDENT PAPERS

PRIMARY SOURCES

1 erepository.uonbi.ac.ke Internet Source  24/11/2023 **5%**

2 erepository.uonbi.ac.ke:8080 Internet Source **1%**

3 pdfs.semanticscholar.org Internet Source **1%**

4 ir-library.ku.ac.ke Internet Source **1%**

5 repository.kemu.ac.ke:8080 Internet Source **1%**

6 www.scilit.net Internet Source **< 1%**

7 www.scirp.org Internet Source **< 1%**

8 www.iajournals.org Internet Source **< 1%**

9 Submitted to Kenyatta University Student Paper **< 1%**