

**OPERATIONS STRATEGIES AND OPERATIONAL PERFORMANCE OF
ARCHITECTURAL CONSULTING FIRMS IN NAIROBI**

BY

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DECLARATION

I declare that this is my original work, and that it has not been presented in any other university for academic credit.

Reg. No: D61/77075/2015

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Signature

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

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DEDICATION

I dedicate my research to my parents Watson Njenga and Rose Wanjiru for believing in me and pushing me to be better. To my sibling Joseph Mungai, Solomon Njenga and Natasha Wanjiru for their love and support.

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ABSTRACT

Operation strategy is critical to successful implementation of operation strategies. Operations strategy ensures efficient operationalization of operation strategies plans through seamless implementation. Operation strategies carry activities which have a defined timeline and clear indicators, the two variables which largely define project success. Through operation strategies, project work schedules are adhered to and the resources are focused towards key performance indicators. This research study examined the operation strategies and operational performance of architectural firms in Nairobi. The specific objectives of the study were to determine the operations strategies adopted by architectural consulting firms in Nairobi and to establish the relationship between operational strategies and operational performance of architectural consulting firms in Nairobi. A sample population of 90 was selected. Questionnaires were administered through both e- mails and hand delivery. Questionnaires were tested for both reliability and validity. Qualitative and quantitative techniques was be used to analyse data with the assistance of SPSS software program version 22. Both primary and secondary data was be used. Secondary data was be on the registration details of the firm, past financial performance, and holders of management positions. Primary data was be gathered using questionnaires. A good response rate of 71.1% which makes up 64 firms was realised. The study found out that not all the operational strategies are being employed by the organization in the operation strategies being undertaken and consequently the benefits resulting from the adoption of the same operational strategy are not being realized. The research findings are that there is a positive relationship between operation strategies and operational performance of architectural firms in Nairobi. The recommendations of the study address the need of the scholarly work on operations strategies in the architectural consulting firms that are essential for future studies and research. The limitations of the study were that it focused on architectural consultants in Nairobi only. There is need to undertake similar studies in architectural consultants outside Kenya. Further study is recommended on operations strategies applied by other consulting firms in the service industry, with focus on those in the construction industry.

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study

Competitiveness is the cornerstone of an effective business. Services contribute to economic development (Riddle,1986). Drucker (1977) argues that the fundamental purpose of a business is to create a customer. He maintains that the firm's ability to be competitive and win customers influences the ability to remain in business. This position is further reinforced by Cook (2002) who gives more emphasis not only on customer attraction, but additionally an elevated level of customer retention. She maintains that the services offered to customers, the firms product offerings and its reputation will influence the firm's ability to attract and retain customers. Porter (2002) noted that the eventual goal of competitiveness is to survive in the dynamic environment.

A firm's ability to survive in a competitive business environment is reliant upon its ability to formulate and implement suitable strategies that differentiate their product offering from the competitors. Competitive strategies consist of tactics that an organization has and takes to attract customers, withstand competition, and advance its market share (Thompson and Strickland, 2010). Porter (2000) argues that higher performance would be attained in an industry that is filled with competition through pursuing strategies which include being a leader in low cost, strategy for differentiating products and services and strategy on focusing on a specific segment. Porter (1980), states that organizations that have a precise strategy outdo the ones without a strategy leading to higher performance.

Skinner (1978) argues that operations strategy differs from competitive strategy since it's one of useful factors of its implementation. The operations strategies are used to reach and

defend the competitive position of the firm and it is the main key in improving firm performance. This is because the activities conducted in the operations function are the most important part of making a product or service. Ferdows and de Meyer (1990) observe that operational excellence of a firm is built cumulatively by enhancing the firm's operational capabilities. It can be developed by building on quality, in dependability, flexibility and cost. Through implementation of operations strategies, a firm can achieve high operational performance.

1.1.1 Operations Strategies

Operations strategies are a long-range plan formulated for the operations function. Slack and Lewis (2011) define operation strategy as the decisions a firm makes to determine the long-term activities and abilities of operations in the firm and their contribution to the corporate strategy. This is achieved through integrating, through reconciliation of customer needs with its operations resources. To improve a firm's competitiveness, the operations strategies must support the competitive strategy (Hayes and Wheelwright, 1984). Therefore, in formulating the strategies the firm must decide the policies and plan resources in a way that supports its competitive strategy. For the implementation of operations strategies to succeed it must meet customer demands and consider the product life cycle. According to Subramanian (2009) there are five core operations strategies. They are corporate strategy, customer driven strategies, competitive priorities, core competencies, and product and service development.

Corporate strategy the overall company strategy. The operations strategy of the firm must be in line with and support the corporate strategy. Hayes et al. (2005) suggest that for

operations strategies to be effective they must give the firm competitive advantage. To survive in the competitive environment firms must exploit its existing opportunities and identify its threats. The strength of the firm can exist in its operations strategies. Corporate strategies treating the firm as one entire system with several interrelated functions. Each function of the firm depends on the other for it to survive and meet its objectives. The operations function depends on the marketing and finance function for it to achieve All these distinct functions must in line with the overall corporate strategy and ensure there is interaction within the different functions in the organization.

Customer driven strategies are operations strategies that enable a firm to meet the demands of customers. Payne and Frow (1997) observed that customer-driven quality is important and understanding a customer's perception of quality is potentate perception of quality differs from customer to customer. Zeithaml and Bitner (1996) highlighted that providing quality services is vital to gain and sustain competitive advantage. From a service, customer retention is done through customer service and satisfaction. According to Kotler (2003) the five determinants of service quality are responsiveness, reliability, tangibility, assurance, and empathy. A firm must, therefore, formulate strategies that assess and acclimatise to the changing environment, develop their core competencies, and identify their strengths, weaknesses, opportunities, and weaknesses in the market.

Competitive priorities are the operations strategies that differentiate a company from its competitors enabling it to provide the desired product and service. According to Boyer and Lewis (2002) a firm needs to operationalize through understanding the importance of its competitive priorities and focus on them. Competitive priorities are an important part of

operations strategy. According to Slack et al (2004) the major competitive priorities are time or speed, cost or the price of the service, quality, dependability and lastly flexibility. Firms may be forced to make trade-offs whereby they focus more on one competitive priority than others. The firm must achieve a basic level of one of each of these priorities.

Developing core competencies is an important operations strategy for every firm. Core competencies are the distinctive resources of a firm, or its strategic strength that gives it a competitive advantage (Johnson & Scholes, 2002). Rastogi (2008) argues that, firms need to possess core competencies which enable it to survive, be successful and gain sustainable competitive advantage. By identifying their internal strengths and competences firms are able to develop their core competencies. (Hamel & Prahalad, 1994) argue that there are three ways of identifying its core competencies. These are customer value, competitive uniqueness and extendibility into new markets, new products, and new processes. Core competencies could be knowledge of information technology, expertise in each field, special skills of employees, flexibility in its facilities and market understanding. A firm that develops its core competencies is able to meet its customer needs and expectations by providing products and services of high quality at a competitive price giving it competitive advantage.

To develop products and services firms apply operations strategies such as innovation, design and adding value to existing products. According to Subramaniam (2009) process design strategies include customer contribution, flexibility in its resource allocation, process design, vertical integration, capital investment, change strategy which all leads to an effective design process. Firms need to know the product life cycle of its product which

has four stages. These are introduction, growth, maturity, and decline. In the introduction stage profits at this stage are non-existent and firms invest heavily on research and development. The growth stage is the best time to change image, quality, or price and to strengthen its market share. It is characterized by growing profits. Maturity stage is the best to defend its market position and it's not the period to make changes. It is characterized by declining sales and profits stagnate or decline. The decline stage is characterized by a decline in sales and profits.

1.1.2 Operational Performance

Operational performance is the measure of the performance of the company against prescribed standards, such as productivity, cycle time, regulatory compliance, environmental responsibility, and waste reduction. Slack et al. (2007) proposes five operations performance objectives, which include flexibility, dependability or trustworthiness, quality, speed, and cost. Flexibility is defined as the ability to modify operations to suit the demand. Dependability the firm's ability to pass on things and associations as indicated by assurances prepared to entice clients. Quality that is the consistent conformance to customer expectations. Speed is the rate at which the firm responds to customer needs and requests. It's the period between when the customer makes a request and when they get their need met. Cost, which is the sacrifice given by customers for them to acquire products and services comprising of fixed and variable cost.

According to Richard (2009), performance should be linked to factors such as profitability, market share growth, sales, improved productivity, improved service delivery and customer satisfaction. Properly identified performance indicators help in benchmarking,

measuring the performance of employees, identifying areas where gaps exist, provide a guide when allocating resources and the overall objectives of the firm. According to Parmenter (2011), satisfaction of customers, net profit before tax, return on investment, and employee contentment are the main key performance indicators. Effective operations management can give a competitive advantage through reducing costs of services achieving customer satisfaction.

1.1.3 Architectural Consulting Firms in Kenya

An architectural consulting firm is a company that employs one or more licenced architects and practices the profession of architecture. The architectural firms are involved in design and supervision, interior design, landscape design, landscaping, interior design, residential, commercial and industrial Operation strategies (Architectural Association of Kenya,1967). The work in collaboration with other professional consultants such as engineers, quantity surveyors, construction project managers, landscape architects and environmental design consultants. Over the years, the role of architectural firms has been influenced by religion, politics, and cultures (BORAQS, 2010). In Kenya, Architectural firms are regulated by two bodies: Board of Registration of Architects and Quantity Surveyors (BORAQS) which was established in 1934 and Architectural Association of Kenya (AAK) which was established in 1967. Before these two professional bodies were formed Architectural firms in Kenya were initially governed by Royal Institute of British Architects (RIBA).

The history of architectural firms in Kenya dates to the 1st of April 1934. The practice then was by mostly foreigners of British and Indian citizens. One of the first Architectural firms in Kenya was Triad Architects & Planners founded in 1963 by Amyas Connell & Graham

McCollough of UK origin. The first fully indigenous architectural firm in Kenya Waweru & Associates established in January 1972. The Board established registers for firms in early 2000. The Board has a register of local category only, with firms practicing in the East African region and abroad. For a multinational or an international firm to practice here, they have to collaborate with a locally registered person of whom must have the majority of shares. The Board has registered 380 architectural consulting firms (As at 11th September 2018) (as per the attached Appendix II)

The significance of architectural firms to the economy can be measured in terms of their impact to the gross domestic product (GDP). The construction industry contributes to 7% of the GDP which shows that the construction industry in Kenya is well developed. In the last five years, the industry is important driver of the economic growth and has contributed to a high gross domestic income. According to the Kenya National Bureau of Statistics is high investment in this sector and also a high number of labour employed. There are increasing opportunities in the industry due to increased population and need for low cost housing, commercial and industrial buildings and also the government agenda to provide affordable housing.

1.2 Research Problem

Firms globally have embraced strategies enabling them to be competitive, innovative, and responsible to business demands in the environment (Rostagi, 2008). Despite the growing importance of the service industry and its changing environment, most studies concerning competitive advantage have been conducted mostly within the manufacturing industry, especially on the functional level (Johnston ,1999).

Architectural consulting firms are unique and peculiar making them different from other organizations. They are governed by Cap 525 of the Laws of Kenya which prescribes the operations of architects. One of the key requirements for registration firm as an architectural consulting firm is that all shareholders and directors ought to be architects with the principal shareholder or partner being a registered consulting architect. BORAQS the body governing them requires that the consultancy firms ought to be managed and run by architects who possess important architectural skills but lack the soft skills of managing organizations and operations. Cap 525 of the Laws of Kenya provides that firms cannot advertise their services and their fees are also regulated. These stipulations affect the overall performance of the firms. Therefore, this study has been motivated by the fact that consulting architectural firms are managed by architects as opposed to trained managers. They may not have clearly defined operations strategies in the firm. It seeks to establish whether the firms that have and implement them have higher operational performance and eventually higher overall business performance.

Various studies have been undertaken globally on operations strategies and operations performance. Ward and Duray (2000) investigated the relationship between increased competition and operations strategy. They used a case study footwear firms using questionnaires for data collection. They noted that Firms respond to increased competition with the development of certain operational capabilities. Bakar, Yuso & Irgiyanti (2011) did a study of application of strategic management practices in the Malaysian Construction industry. The study found that firms that did have clearly defined and implemented strategies were likely to fail as compared to those that do. Muogbo (2013) surveyed the effect of strategic management on the progress, expansion and performance of

manufacturing firms. The study found most of the firms did not apply strategies. It showed that strategic management influences the competitiveness and performance of the firms.

Locally, a Deloitte (2013) report on African construction trends report of 2013, the findings showed that East Africa has become a leading strategic hub for architectural firms and that with the increased momentum in the construction activities, investors are relying on the governments to develop best practice in the industry on quality to improve customer satisfaction. There is therefore growing demand especially for service driven firms to have practical guidelines in developing customer focus. Musyoka (2016) investigated the relationship between operations performance objectives and customer retention. He investigated five motor vehicle dealers in Kenya. The study concluded that the firms that used operations performance objectives had higher customer retention. Kipngetich (2016) did a research on the operations strategies and firms' performance of ailing companies in Kenya. The study concluded that firms that had operations strategy practices had higher organizational performance.

Arising from these studies, it appears few studies have been done on Kenyan firms on their use of operations strategies in architectural consulting firms in Nairobi. The study was guided by two research questions: What operations strategies are adopted by architectural consulting firms in Nairobi? What is the relationship between operations strategies and operational performance of architectural consulting firms Nairobi?

1.3 Research Objectives

The objective of the study was to examine the operations strategies and operational performance of architectural consulting firms in Nairobi. The specific objectives are:

- i. To determine the operations strategies adopted by architectural consulting firms in Nairobi.
- ii. To establish the relationship between operational strategies and operational performance of architectural consulting firms in Nairobi.

1.4 Value of the Study

The findings arising from the research study will be useful in providing additional knowledge for better understanding operations strategies and operations performance. To architectural consulting firms in Nairobi, this study will be beneficial. It will ensure quality of work and they will be able to meet set timelines which was in turn ensure that cost is controlled. Internally the consulting firms will benefit since with proper work process they will be able to meet the set strategies and achieve their overall goals and targets giving them competitive advantage over their competitors.

For other firms, this study shall provide a glimpse of how to make use of operations strategies to develop effective work processes to deliver operation strategies in time, lower cost, provide quality and flexibility. They will get a glimpse of how to formulate and implement operations strategies, enlightening them on how this will improve their operations performance and the overall performance of the firm. It will also provide function as an eye opener to these professionals by highlighting the peculiarities of their practices compared to other businesses. The future users of this study are expected to use it to advance their knowledge in operations strategies and how it affects operational performance of the firm.

To the academia, this study will form the foundation for future studies. There are limited empirical investigations on operations strategies in the architectural consulting firms in Nairobi. This forms a good ground for the academicians to examine the research gaps in this area. This is since the findings of this study will be evaluated considering its limitations. Future studies can assess the present limitations and hence provide more insight into this topic. As a result, this study addresses the need of the scholarly work on operations strategies in the architectural consulting firms that are essential for future studies and research.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter evaluates the existing literature regarding operations strategies and operations performance. It considers the theoretical framework based on variables of interest and finally related the relationships of study variable in a conceptual framework.

2.2 Theoretical Literature Review

The study considers the relevant theories that support the variables in advancing the argument of the importance of operations strategies in consulting firms. To accomplish the objectives of the study was three theories are used.

2.2.1 Resource-Based View Theory

The resource-based theory assesses a company's competitive advantages based on its resources. It emphasizes that the resources managed by a firm are the key determinant of its competitiveness and performance. The major principle of theory is the resources a firm has and manages are its source of competitive advantage. (Pearce and Michael,2006). Resource-based view (RBV) theory is based on two basic assertions. Resource uniqueness which means the resources the firm own are different from those of its competition and resource immovability means that the resources are permanent and last long. (Mata, Fuerst & Barney,1995). The theory looks for competitive advantage in a companies' assets which are tangible and its capabilities which are intangible and thus more complex. The RBV theory holds that to generate sustainable competitive advantage, a resource must be scarce, difficult to imitate, provide economic value, must be presently and not easily obtainable.

Firms should create a culture which can drive the success of total quality management tools like training, quality, process improvement and benchmarking (Powell,1995).

This theory is relevant to architectural consulting firms since it was guide them in identifying its key resources such as: knowledge, capabilities, technology, information, skills, assets, processes, tangible and intangible resources. Firms identify unique resources and capabilities which are heterogenous and immobile. They then need to come up with a distinct combination of these resources that was add value and give the firm a competitive edge. They should abandon resources that do not add value to them (Swaim,2011). The firm will aim to make its resources inimitable to ensure that its competitors cannot replicate their service or product offerings. According to Porter (1990) for firms to achieve competitive superiority it should organize its resources to be inimitable, rare and value adding. Tesot (2012) argues that the RBV of the firm can improve its performance by gaining advantage over its competitors through the resources it owns and controls.

2.2.2 The McKinsey's 7s Model

McKinsey's is a model that proposes seven basic factors that managers need to consider to successfully implement strategies. According to Manage (2007) it is a model that firms can use to analyse the environment and establish whether they are achieving the intended objectives. The 7's of seven factors are systems, skills, staff, shared value, style, structure and strategy. Systems are routine process and procedures followed within the organization when undertaking tasks. Skills are the capabilities and the competencies of the staff in the firm. Staff are the human resource element in the organization. (Peters and Waterman, 1982) argue that since all these factors are dependent on each other attention must be paid

to all of them. Shared values are practices and policies that enhance the competitiveness of firms while improving their surrounding conditions are evidenced in the general work ethic and the firm's corporate culture. Style is the way on which management conducts itself in the organization and it incorporates the organizational culture and underlying philosophies and mindset of top management. Structure according to Kaplan (2005) is the grouping of reporting lines and job description and people are allocated duties and their specialization. Peters and Waterman (1982) state that structure determines how a firm performs and operates. The way the organization is structured, and the reporting lines. Strategy according to Grant (1991) is the fit a firm makes in its skills, capabilities and internal resources, threats, and opportunities in its external environment. They provide a to guide on resource allocation and formulation and are used to strengthen the operations of a firm. They can become a source of competitive advantage for firms over their competition through identifying what they can do more effectively than their rivals.

Architectural consulting firms can use the McKinsey's 7s model as a tool in when implementing their operational strategies (Simiyu, 2013). Since the factors are interdependent failure to pay proper attention to either or all of them leads to failure (Peters and Waterman, 1982). Firms will therefore need to consider all the seven factors for effective implementation of its strategies. Firms will first need to set budgets and performance goals which will function as measures of success. Then the firm needs to align areas that are not well aligned. The firm will then set the design it wants to achieve and detail an action plan to achieve that. According to Dunphy and Stace (1988) a firm's style and organizational structure need to be aligned to shared values. The firms should

continuously review the seven elements, since any variation in any of them affects the rest (Peters and Waterman, 1982). The firm will be able to identify the gaps in resources gaps that need to be filled and be able to determine what they can do more effectively than its competitors.

2.3 Operations Strategies

Operations strategies are contextual to the nature firms adopting them, although they may be like those of other firms in the same industry. Operations strategies are systems that a firm adopts for them to be able to identify and leverage its unique resources and advantage. Hill (2005) suggests that firms needs operations strategies that are not imitable by developing operations systems in an innovative and creative manner. According to Skinner (1969) operations strategies are an important part of the overall business strategy. Through its operations, the firm is able to plan how it will acquire, organize and employ its resources in order to achieve its operational performance objectives. According to Slack (2009) the operations objectives of operations of a firm are quality, flexibility, speed, dependability, and quality. A firm should seek to excel in more than one of these performance objectives for them to have sustainable competitive advantage.

Firms need to make strategic directions, so they can plan on the direction they want to take and the steps they need to take to get there. The operations function needs to set its strategies and articulate its performance objectives, and to define principles which was govern the process they use to make decisions. This is defined as the operations strategy of the firm. According to Slack & Lewis, (2011) strategy and operations strategy concepts are not straight forward. Operations management decision involves selecting location,

planning of layout, designing process and capacity, designing product and service, quality management, work design, planning, scheduling middle-term and short-term. (Heizer & Render, 2009).

2.4 Empirical Literature Review

Several researchers have addressed the process of formation and implementation of operations strategies. Globally, Ward and Duray (2000) did a study on competitive strategy and performance for manufacturing firms. They sampled 101 manufacturing firms in the United States from three different industries. The methodology used was covariance structure analysis, and they also used a manufacturing strategy model. The study found that competitive strategies applied by a firm affect its overall performance. It also found that other strategies that influence performance are environmental and its manufacturing strategies. These strategies were found to be linked to the high functioning of the firms. The gaps in the study are that it did not include the processes applied in the firms and the study did not include any service-driven firms.

Anwarl, Subroto, Alhabsji, Djumahir (2014) studied how the environment and strategic resources influence the competitive strategy, operations strategy and business performance of a firm. They surveyed 153 small scale businesses. The methodology used was the quantitative statistics. Data analysis was done by using generalized structured component analysis. The findings showed that both the environment and strategic resources were critical in the implementation process of operations strategies. However, in implementing competitive strategies, strategic resources did not play a key role, but the environment of these business strategies influenced its competitive strategies. There was

no direct effect on the performance of the businesses from its environment and strategic resources. Operations strategies of the firms had a direct impacted the implementation of their corporate strategies and performance. The study concluded that when operations strategies of the firm were based on the environment and its competitive strategies it had a constructive impact on the firms' performance. The gap in the study was that it focused small scale industry only.

Monday, Akinola, Ologbenla, Aladeraji (2015) investigated the relationship between firm performance and strategic management. They sought to show that the performance off the firms in influenced by the its strategic management. The study was on five manufacturing firms in Nigeria. The methodology involved collection of data through questionnaires of 50 purposively chosen respondents from the firms. Data analysis was using done using descriptive analysis. The study found that strategic management influences the level of competition of firms positively and those that applied it boosted their performance. Also, strategic management had substantial influence on the firms operational and businesses performance and its profitability. The limitations of the study were that there was no service industry studied since it only focused on manufacturing firms.

Locally, Magutu, Mbeche, Nyamwange, Mwove, Ndubai and Nyaanga (2010) did a study on operations strategies applied and challenges facing their implementation. They surveyed City Council of Nairobi (CCN) on its solid waste management. The respondents comprised of 50 members and managers. The methodology applied was descriptive statistics. They found that when formulating operations strategies, both the management

and employees were involved. There was also support of the strategic plan by the management which made the implementation process easier. There were also adequate policies within the organization that supported the overall strategic plan in waste management. There were, however, a few challenges in the implementation process which the management sought to overcome. The challenges included the fact that not enough effort and time were invested in formulation and execution of the operations strategies. The gaps were that it only focused on the city council of Nairobi and not any other firms.

Kipngetch (2016) did a research on the operations strategies and organizational performance of ailing firms in Kenya. He sought to determine the influence operations strategies have on the performance of the firms. He studied ten ailing firms in Kenya and 100 respondents were sampled from a total of 332 respondents using random sampling technique. The methodology applied were both inferential statistics and descriptive statistics. Data analysis with the aid of the SPSS latest version, correlation analysis and the results presented in tables and figures. The study found that firms that had operations strategy practices had higher performance. The recommendation from the study was for firms to apply operations strategy practices for them to achieve operations efficiency and business performance. The gaps were that it only studied ten ailing firms in Kenya; hence, the outcome may not give a conclusive picture of all ailing firms in Kenya.

Musyoka (2016) did a study on the operations performance objectives and customer retention. The study sort to show that performance applied by motor vehicle dealers in Kenya and their impact on customer retention. He sampled five vehicle merchant firms in

Kenya. Frequencies, rates, and combined rates were utilized to set up scores in the demographic information. Means and standard deviations were also utilized to build up deviations in the dispersion of autonomous factors. The finding was that firms that had operations performance objectives had higher customer retention. Firms that focused on their operations performance had a higher retention rate. The gaps of the study were it only focused on motor vehicle merchants only

2.5 Summary of Literature Review

A summary of literature review is provided in the table 2.1 below. The table contains the author(s), the focus of their studies, methodology used, major findings and knowledge gaps.

Table 2.1 Summary of Empirical Studies and Knowledge gaps

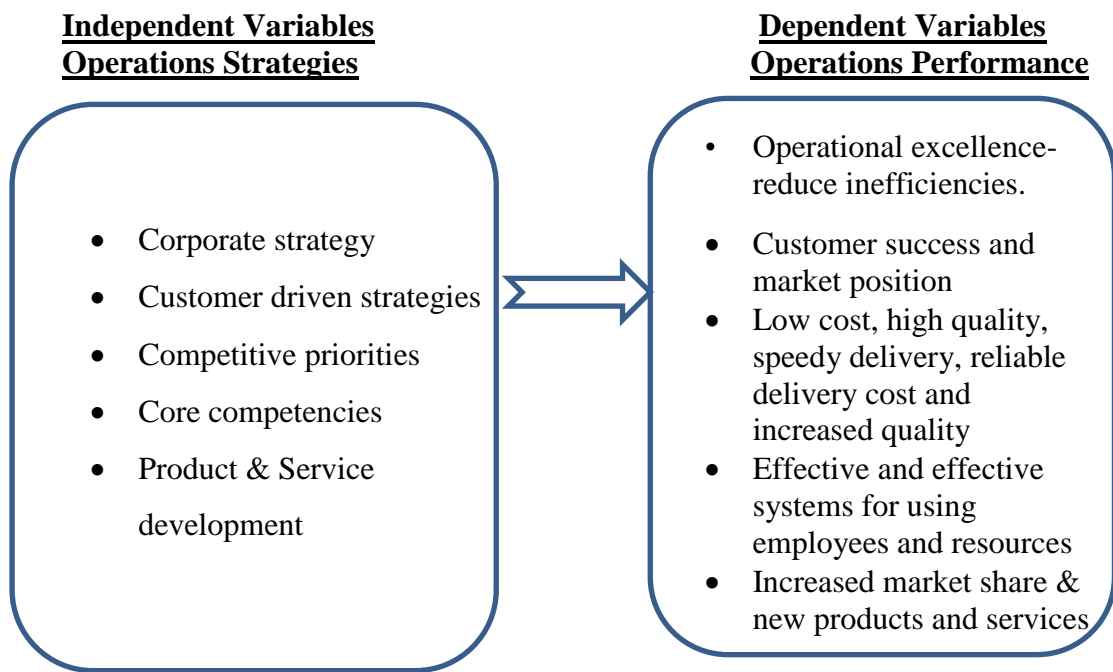
Author(s)	Focus	Methodology	Major findings	Knowledge Gaps
Ward and Duray (2000)	A research on competitive strategies and performance for manufacturing firms.	They sampled 101 U.S manufactures States from three industries. The methodology used was covariance structure	The findings were that performance of the firms was influenced by the competitive strategies and are linked to high performance firms.	It did not include the processes applied by firms and the study did not include any service firms.
Anwar1, Subroto, Alhabsji, Djumahir (2014)	They did a research on the influence that strategic resources have on their competitive strategy, operations strategy, and performance.	They surveyed 153 small scale businesses. The methodology used was the quantitative approach and data was evaluated using Generalized Structured Component Analysis.	The study found that when operations strategies of the firm were based on the environment and its competitive strategies it had a constructive influence of the firms' performance.	The gap in the study was that it focused small scale industry and not on any large-scale firms.
Monday, Akinola, Ologbenla, Aladeraji (2015)	They researched on the impact of strategic management on the performance of firms.	The study was on Five manufacturing firms in Nigeria with 50 respondents from the firms. Data analysis was using descriptive analysis, correlation analysis and also using analysis of variance.	The study found that strategic management leads to higher levels of competition and also influenced the firms operational and businesses performance and its overall profitability.	The gap of the study was that no study was done for firms in the service industry.

Magutu, Mbeche, Nyamwange, Mwove, Ndubai & Nyaanga (2010)	A study on operations strategies applied and challenges facing their implementation	They studied the City Council of Nairobi (CCN). Data was analysed using descriptive statistics and evaluated using tables, percentages and proportions.	The findings were that both management and employees participated in formulation and implementation of operations strategies. The challenges were that not enough effort and time were invested in the formulation and execution of operations strategies	The study only focused on City Council of Nairobi only not any other firms.
Kipnetich (2016)	A study of operations strategies and organizational performance of ailing firms in Kenya.	They studied ten ailing firms in Kenya. For analysis descriptive survey design and SPSS was used.	The study found that firms that had operations strategy practices had higher performance. Application of operations strategy practices helps achieve operations efficiency and business performance	The gaps were that it only studied ten ailing firms in Kenya.
Musyoka (2016)	A study on operations performance objectives and customer retention of vehicle merchants in Kenya.	He studied five vehicle merchants in Kenya. Frequencies, rates, and combined rates were. Means and standard deviations were also utilized	The study found that firms that applied operations performance objectives had a higher customer retention rate.	The gaps were that it only focused on motor vehicle merchants only.

2.6 Conceptual framework

The independent variables in this study are corporate strategy, customer driven strategies, competitive priorities, core competencies and product and service development. The dependent variables are operational excellence that leads to reduced inefficiencies, customer success and market position. Low cost, high quality, speedy delivery, dependable delivery cost and increased quality, effective and effective systems for using employees and resources, increased market share & new products and services These variables are schematically presented in figure 2.1 below,

Figure 2.1 Conceptual Model



Researcher (2018)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the research design, population of the study, sampling procedure, data collection methods and data analysis.

3.2 Research Design

The descriptive research design was used in the study. Cooper and Schindler (2003) stated that a descriptive study is designed to research on an occurrence to understand it's what, where and how. This survey design was adopted in initial and investigative studies to enable researcher collect, review, present and interpret data. This survey design was suitable since it was used to describe how the variables support the objectives under investigation and it was possible to determine the relationship that exists between them. The research was able to generalize the findings to a large population.

3.3. Population of the study

In this study the population consisted of registered architectural consulting firms in Nairobi. According to the database maintained by the Board of Registration of Architects and Quantity Surveyors there are 348 firms (Appendix II).

3.4 Sampling Procedure

In the study 90 registered architectural consulting firms were selected. The sample size was determined from a conservative principle for sample size determination as formulated by Cooper and Schindler (2008): -

$$n > 50 + 8 (m)$$

Where: - n= sample size

m =number of Predictors – which in this study were the independent variables

Therefore $n > 50 + 8(5) = 90$

This sample size was adequate for the study given the technical knowledge and experience of the target respondents.

3.5 Data Collection

Both primary and secondary data were used. Secondary data was on the registration details of the firm, past financial performance, and holders of management positions.

Primary data was gathered using questionnaires. The questionnaires had both closed ended questions seeking specific information and open-ended questions seeking in-depth information. The questionnaire was made up three parts. Section one contained general information of both the firm and respondent. Section two requested data on the extent of application of operations strategies and operations performance used by the firms. The last part sought data on the firm's operations performance. The respondents were operations managers or their equivalent. The questionnaires sent via email.

3.6 Data Analysis

The data collected was reviewed and modified to certify that it was precise, consistent, and complete. The general information and the data sought to determine the extent of application was analysed using descriptive statistics, which included frequency distribution and measures of central tendency. The results were interpreted, inferences made and presented on tables and in percentages. To analyse the relationship between operations strategies and operational performance by architectural consulting firms, correlation and regression analysis was used. The regression equation was as below:

-

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where: -

Y = Operational performance

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Coefficients

X1- Corporate strategy

X2- Customer driven strategies

X3- Competitive priorities

X4 -Core competencies

X5 = Product & Service development

ε =Error term

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings and discusses the findings on operation strategies and operational performance of architectural consulting firms in Nairobi. For data analysis descriptive statistics was used as well inferential statistics.

4.2 Response Rate

The questionnaires that were administered to the target respondents were 90. The response rate was 71.1% which represents 64 firms. According to Finchman (2008) a good response rate should be 70% and above. This therefore justifies the present response rate for analysis.

4.3 Pilot Test Results

Pretesting of the research instrument was done to set of 8 respondents from 4 architectural consulting firms. The questionnaires were then analysed to establish the reliability of the research instrument. The pilot test results indicated that all the variables had Cronbach's Alpha above the coefficient of 0.7 which is the minimum acceptable reliability and implies great internal consistency. Based on this analysis, all items measuring various variables were accepted and considered for the study. According to Sekara, (2008) a value of at least 0.7 is recommended and the closer a Cronbach 's Alpha is to 1 the higher its reliability.

Table 4.1 Pilot Test Results

Scale	Cronbach's Alpha	
Corporate strategies	0.826	Reliability
Customer driven strategies	0.764	Reliability
Competitive priorities	0.725	Reliability
Core Competencies	0.834	Reliability

4.4 Respondents Demographic Characteristics

The study sought to determine the respondents' level of education and work experience. The demographic results are presented in percentages using figures to show the compositions of each category.

4.4.1 Respondents Level of Education

The findings showed that 73.4% of the respondents had university level of education while only 26.6% of the respondents had college level of educational qualification as shown in Figure 4.2. The demographic results on respondent level of education therefore revealed that most of the respondents had adequate level of academic qualification implying that the responses they provided on assorted items of the questionnaires were sufficiently reliable. These results are in line with study by Riddell and Song (2012) that high educational level results to a great extent of comprehension of ideas and information thereby increasing individual's input in enhancing effectiveness of data collection process for the purpose of making correct statistical inferences.

4.4.2 Respondents Level Work Experience

The study also sought to determine the respondent's level of work experience in the architectural consulting firms in Nairobi.: It showed that 31.3% worked for a period of

over 10 years, 39.1% had worked for between 6-10 years, 20.3% had worked for a 2-5 years and only 9.3% had worked for less than 1 year. The findings therefore imply that majority of the study respondents had worked in the firms long enough to understand the operating strategies and operational performance of architectural consulting firms.

Table 4.2 Respondents work experience

	Percentage	Cumulative Percentage
Less than 1 Year	9.3%	9.3%
2-5 Years	20.3%	29.6%
6-10 Years	39.1%	68.7%
Over 10 Years	31.3%	100%

Research data (2018)

4.5 Descriptive Results of the Study Variables

This part presents the finding on descriptive analysis conducted by the study. These include mean and standard deviation. These results showed how various statements were responded to by the respondents.

4.5.1 Corporate strategy

One of the objectives of the study was to establish the influence of corporate strategy on the operation strategies of consulting firms in Nairobi county. The respondents were requested to rate statements on corporate strategy on a Likert scale. The results are presented on Table 4.3. The findings reveal that most of the respondents stated that the firm has clearly formulated vision and mission statements, the firm has clearly formulated corporate strategies and adopt, the firm has clearly formulated operations

strategies to a very high extent as specified by mean value of 4.63, 5.00 and 3.52 respectively.

Furthermore, the respondents indicated that the architectural consulting firms in Nairobi Both the management and staff participate in the formulation process and the firm has clearly defined standard operating process to moderate extent as shown by mean value of 3.38 and 3.19. On average, the conclusion is that corporate strategy is practiced to a moderate extent of architectural consulting firms in Nairobi as shown by an average mean response of 3.94. The findings of this study are consistent with Homburg, Krohmer, Cannon and Kiedaisch (2002) who argued that despite its importance, corporate strategy is not widely practiced in the architectural consulting firms in Nairobi.

Table 4.3 Corporate strategy

Statements	Standard	
	Mean	Deviation
The firm has clearly formulated vision and mission statements	4.63	0.79
The firm has clearly formulated corporate strategies	5.00	0.00
The firm has clearly formulated operations strategies	3.38	1.13
Management and staff participate in the formulation process	3.19	1.23
The firm has clearly defined standard operating process	3.52	0.98
Average	3.94	0.83

Research data (2018)

4.5.2 Competitive priorities

The research sought to find out the effect of competitive priorities on operational performance of architectural consulting firms in Nairobi. The respondents were asked to rate statements on customer driven strategies on a Likert scale. The results of the study were as indicated in table 4.4. It was established that Quality has improved, the firm uses Flexibility measures to make decisions on operational levels and Dependability/Reliability has been enhanced by architectural firms to a moderate extent. This is presented by average responses of 3.44, 3.30 and 3.42 respectively. Furthermore, the findings revealed that Speed or time on the operation strategies and cost/price of the operation strategies to a high extent as shown by average responses of 4.03 and 3.92 respectively.

On average, it can be concluded that the competitive priorities among architectural consulting firms is at a moderate extent as shown by overall average mean response of 3.62. The findings of this study are consistent with Tangus, Yugi, Rambo and Rono (2015) who argued that at the moment, the architectural consulting firms.

Table 4.4 Competitive priorities

Statements	Mean	Standard Deviation
Quality	3.44	1.26
Flexibility	4.03	0.78
Dependability/Reliability	3.30	1.41

Speed or time	3.42	1.29
Cost/Price	3.92	1.03
Average	3.62	1.15

Research data (2018)

4.5.3 Customer driven strategies

The study sought to determine the impact of customer driven priorities on operational performance of architectural firms. The respondents rated statements on customer driven priorities on a Likert scale. The results are as indicated in the table 4.5. The findings revealed a high extent the firm offers top and consistent quality services and Meeting the needs of the customer is especially important to the firm. The firm consistently increases customer base per year and Most of the firm's clients are repeat customers and architectural firms. This is supported by average response rate of 3.64, 3.74, 3.68 and 3.94 respectively. It was however revealed that the architectural firms in Kenya uses of the firm focuses on product and service development to a moderate extent as shown by an average response rate of 3.47.

Overall, it was concluded that adoption of customer driven priorities among architectural firms in Nairobi has been done to a high extent as shown by an overall average mean response of 3.69. The findings are as per a study by Modi and Mabert, (2007) who argued that customer driven priorities are being construed by architectural firms as the strategy for improving the operational performance.

Table 4.5 Customer driven priorities

Statements	Standard	
	Mean	Deviation
The firm offers top and consistent quality services	3.64	1.16
Meeting the needs of the customer is especially important to the firm	3.74	0.96
The firm consistently increases customer base per year	3.47	1.26
The firm's clients are repeat customers	3.68	1.12
The firm focuses on product and service development	3.94	0.82
Average	3.69	1.06

*Research data (2018)***4.5.4 Core competencies**

The research sought to establish the influence of core competences on operational performance among architectural firms. The target respondents were asked to rate statements on core competencies on a Likert scale of 1 to 5 as shown in table 4.6. It was established that the Research and development are significant to the firm and the firm is dependent on technology as shown by average response of 3.80 and 4.40 respectively. It was also shown that the firm the firm uses Technology helps the firm lower its operational cost, the firm has highly skilled employees and the firm clearly defined systems for its operations to a moderate extent as shown by mean response of 2.63, 1.63 and 1.80 respectively. Generally, there was indication that core competencies have been implemented among architectural consulting firms to a moderate extent as shown by the overall average mean response of 2.85. The findings are consistent with Wachiuri,

Waiganjo and Oballah (2015) who argued that even though core competencies positively influence operational performance, it is not widely practiced in the consulting firms.

Table 4.6 Core competencies

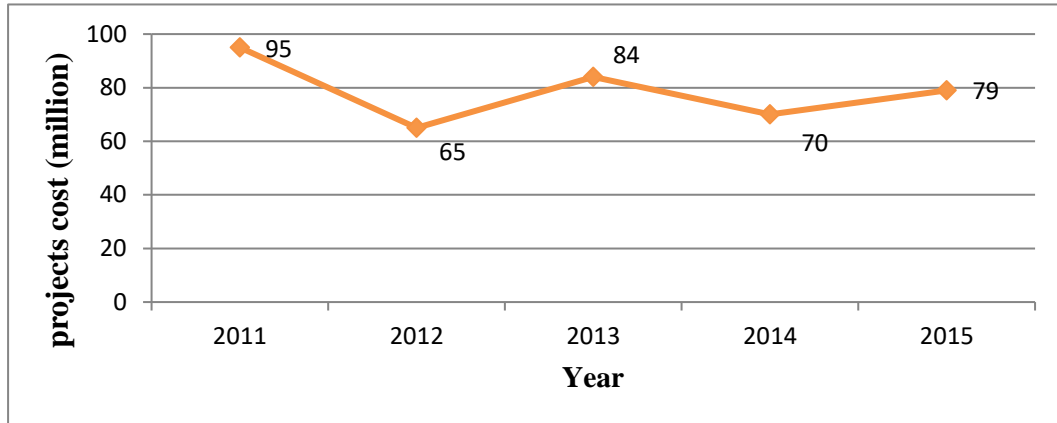
Statements	Mean	Standard Deviation
Research and development are significant to the firm	3.80	1.08
The firm is dependent on technology	2.63	1.29
Technology helps the firm lower its operational cost	4.40	0.92
The firm has highly skilled employees	1.63	1.59
The firm clearly defined systems for its operations	1.80	1.41

Research data (2018)

4.5.5 Operational Performance

The study sought to establish the changes in the project's costs among consulting firms between the year 2011 and 2015. The findings presented in Figure 4.1 reveal that there were unsteady trends in the costs among consulting firms in Kenya between the year 2011 and 2015. The findings were similar to a study by Wanyama (2010) who revealed increasing project costs in the architectural consulting firms.

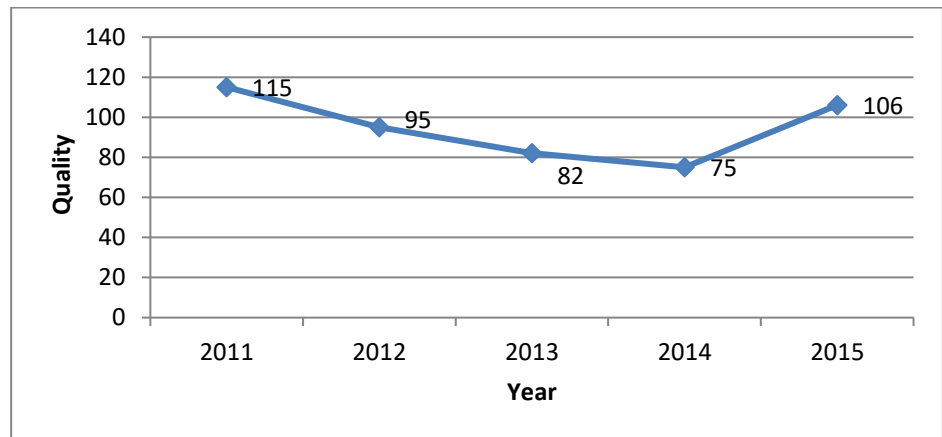
Figure 4.1 Cost



Research data (2018)

The study further sought to establish the changes in service quality as measured by the rejection rate among architectural consulting firms in Nairobi between the year 2011 and 2015. The results in figure 4.2 revealed decreasing trends in the service rejection rate among architectural consulting firms in Nairobi from the year 2011 to 2014, then followed by a sharp increase in the year 2015. In as much as there is an improvement in operational performance in terms of reduced rejections of substandard quality, the value of as at the year 2015 indicates that firms still face challenges in the architectural consulting firms as Chesang (2013) attests.

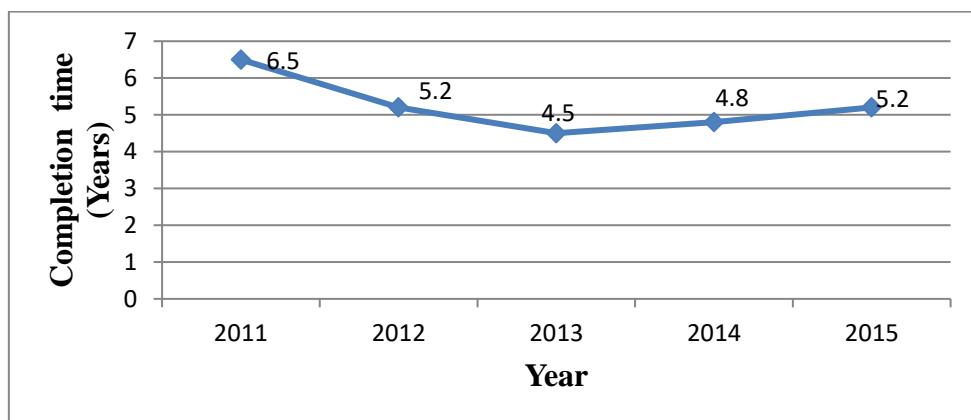
Figure 4.2 Quality



Research data (2018)

The study sought to establish the changes in the completion time (weeks) among architectural consulting firms in Nairobi between the year 2011 and 2015. The results presented in Figure 4.3 reveals fluctuations in the completion time among architectural consulting firms in Kenya. The delivery completion time decreases steadily from year 2011 to year 2013 followed by an increase in year 2014 to 2015. These findings confirm an argument by Njeru (2015) regarding inefficiency and ineptness of operational performance in many architectural consulting firms in Kenya.

Figure 4.3 Completion time



Research data (2018)

4.7 Inferential Analysis

Inferential analysis was done using both regression analysis and correlation analysis to determine the operation strategies and operational performance of architectural consulting firms in Nairobi. The significance of the coefficients was used to determine the relationship between operations strategies and operations performance was significant.

4.6.1 Correlation Analysis

Correlation shows the results in one variable if there is a change another variable (Chiang, Jeon, & Li, 2007). A positive correlation is indicated by a positive Pearson correlation value while a negative correlation is represented by a negative Pearson correlation value. In this study correlation analysis to determine the relationship among the independent and the dependent variables of the study. Pearson correlation coefficient was used to determine the link among the study variables at 5% level of significance. The findings on these correlation as presented in Table 4.7.

Table 4.7 Correlation Tests Results

		Corporate strategy	Customer driven strategies	Competitive priorities	Core competencies	Operational performance
Corporate strategy	Pearson Correlation	1				
Customer driven strategies	Pearson Correlation	0.177	1			
Competitive priorities	Pearson Correlation	0.224	0.261*	1		
Core competencies	Pearson Correlation	.282*	0.052	.499*	1	

Operational performance	Pearson Correlation	.370*	.265*	.318*	.789*	1
	Sig. (2-tailed)	0.003	0.035	0.010	0.000	
	N	64	64	64	64	64

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

Research data (2018)

The study findings revealed a positive and significant relationship between corporate strategy and operational performance of architectural consulting firms in Nairobi county (R = 0.370, Sig <0.05). This therefore implies that an improvement in various indicators of corporate strategy results to a significant improvement operational performance architectural consulting firms in Nairobi county

This finding is consistent with the study findings of Lasserre (2004) who highlighted that corporate strategies are of crucial importance on improving operational performance. The correlation results also showed that customer driven strategies and operational performance in architectural consulting firms in Nairobi county are positively and significantly associated (R = 0.265, Sig <0.05). This therefore implies that an improvement in various customer driven strategies resulted to a significant improvement in the operational performance in architectural consulting firms in Nairobi county. This finding is consistent with the argument by Eamonn *et al.* (2008) who revealed a positive relationship between better inventory customer driven strategies and operational performance.

Correlation results also indicated that competitive priorities had a positive and significant association with operational performance in architectural consulting firms in Nairobi county, ($R = 0.318$, $Sig > 0.05$). This also implies that an improvement in various indicators of competitive priorities results to a significant improvement operational performance in architectural consulting firms in Nairobi county. The findings agree with Hald and Ellegaard (2011) who indicate a positive effect of competitive priorities on operational performance.

Concisely, the correlation results showed that core competencies are positively and significantly related with operational performance in architectural consulting firms in Nairobi county ($R = 0.789$, $Sig < 0.05$) implying that improvement in various indicators of core competencies resulted to a significant improvement in operational performance in architectural consulting firms in Nairobi county. This finding is consistent with the argument by Chen and Paulraj, (2004) who argued that core competencies improve the operational performance of the buying firm thus enhancing its competitive advantage.

4.6.2 Relationship Analysis

This study used the following regression model to determine the operational strategies and operational performance of architectural consulting firms in Nairobi: $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$ Where; Y = Operation performance, X_1 = corporate strategy, X_2 = customer driven strategies, X_3 = competitive priorities and X_4 = core competencies. This multiple regression model was adopted to determine the influence of corporate strategy, customer driven strategies, competitive priorities and core competencies on operational performance of architectural consulting firms in Nairobi.

The model summary results as presented in Table 4.7 revealed that the four independent variables of corporate strategy, customer driven strategies, competitive priorities and core competencies had a strong positive influence on operational performance of architectural consulting firms in Nairobi. as shown by a joint Pearson correlation of 0.853. This shows that a complete improvement in all the four independent variables of corporate strategy, customer driven strategies, competitive priorities and core competencies resulted to a strong positive improvement in the operational performance of architectural consulting firms in Nairobi.

The coefficient of determination (R-square) was 0.728 implying that the four variables jointly accounted for up to 72.8% of the variation in operational performance of architectural consulting firms in Nairobi. It follows 27.2% of the variation in operational performance of architectural consulting firms in Nairobi was accounted for by other factors not covered in the model presented in this study.

Table 4.8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.853	0.728	0.709	0.225164

Research data (2018)

The F statistic indicating the overall significance of the model is significant at 5% (Sig < 0.000) showing that the model is significant. The F calculated statistic of 39.464 > F (4, 159) critical value of 2.429 confirming that the model is significant. The model

significance results therefore imply that the four independent variables of corporate strategy, customer driven strategies, competitive priorities and core competencies adopted in the study are suitable factors in predicting variation in operational performance of architectural consulting firms in Nairobi. The results are presented in Table 4.9.

Table 4.9 Analysis of Variance (Model Significance)

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.003	4	2.001	39.464	0.000
Residual	2.991	59	0.051		
Total	10.994	63			

Research data (2018)

The regression results revealed that corporate strategy positively and significantly influenced operational performance of architectural consulting firms in Nairobi (Beta = 0.191, Sig < 0.05). This implies that a unit increase in various indicators of corporate strategy indicator resulted to 0.191-unit improvement in operational performance of architectural consulting firms in Nairobi. The findings are consistent with Homburg, Krohmer, Cannon and Kiedaisch (2002) who established that corporate strategy improves operational performance thus leading to an overall improvement in the organizational performance

The regression results on customer driven strategies further showed that this variable positively and significantly influenced operational performance of architectural consulting firms in Nairobi (Beta = 0.122, Sig < 0.05) implying that a unit increase in

customer driven strategies indicators resulted to 0.122-unit improvement in operational performance of architectural consulting firms in Nairobi. These results showed that customer driven strategies are a crucial factor in relation operational performance. The results agree with Sanders, Chad, Autry, David and Gligor, (2011) who indicated that customer driven strategies sharing through better customer driven strategies leads to an improvement in operational performance of the consulting firms.

The regression results further showed that competitive priorities positively and significantly affected operational performance architectural consulting firms in Nairobi in Kenya (Beta = 0.164, Sig <0.05) implying that a unit increase in indicators of competitive priorities resulted to 0.164-unit improvement in operational performance architectural consulting firms in Nairobi. The findings are consistent with Wagner (2010) who argued that competitive priorities are linked to an improvement in operational performance.

The regression results finally showed that core competencies had a positive and significant influence on operational performance of consulting firms in Nairobi (Beta = 0.251, Sig<0.05). This implies that a unit improvement in indicators measuring core competencies resulted to 0.251 improvement in operational performance of architectural consulting firms in Nairobi. The findings are consistent with Kamau (2013) who argued that core competencies lead to an improvement in operational performance.

Table 4.10: Regression Coefficients Results

	Beta	Std. Error	t	Sig.
(Constant)	0.045	0.352	0.128	0.899
Corporate strategy	0.164	0.037	4.432	0.000
Customer driven strategies	0.122	0.029	4.207	0.001
Competitive priorities	0.191	0.055	3.473	0.003
Core Competencies	0.694	0.110	6.309	0.000

The optimal regression equation is as shown below

Operation performance of consulting firms in Nairobi = 0.045 + 0.694 (Corporate strategy + 0.164 (customer driven strategies) + 0.122 (competitive priorities) + 0.191 (Core competencies).

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains a summary of findings, conclusions, recommendations, limitations of the study and suggestion for further areas study. The summary of findings was done in line with the study objectives. The conclusions were also presented per objective.

5.2 Summary of Findings

The study found out that not all the operational strategies are being employed by the organization in the operation strategies being undertaken and consequently the benefits resulting from the adoption of the same operational strategies are not being realized. This was more evident with operational management. As a result, it is recommended that the management consider training the project and operations managers to effectively manage their operation since efficient management the firm's operations improved the success rate of the firm's operations performance. The firms had formulated and implemented operations strategies had better operations performance and also the overall performance of the firm. However, because of time constraints, present research was not able to examine longitudinally the effect of operation strategies undertaken by other organizations outside architectural firms. The study recommended that a study be done to implement operational strategies in other firms over a period of time.

5.3 Conclusions

The research findings presented show the positive effects of operations strategies on operations performance. With successful implementation of such operation strategies, there is high chance of the project's sustenance and completion within the set time and

projected cost. Combining the strengths of kaizen strategy, competitive priorities and operational performance has the potential to improve the sustainability and successful realization of firm's operation strategies. Development of appropriate strategies is no longer limited to the overall organization but rather even at individual project level and there is need to ensure the project achieves a high benefit-cost-ratio. Firms will focus on maximizing the performance of each individual project which will ensure consistent improved firm's performance.

From study findings, it can also be concluded that the operation success is no longer found on services and products offered by the firm, instead on its operations strategies and its resources that give the firm sustainable competitive advantage over its competitors. The benefits accruing to the companies as a result of the adoption of operational strategies have been found to include, increased customer base, increased quality of their products reduced cost and overall firm performance in the firms where they are initiated. However, firms should be aware of the challenges which may inhibit them from obtaining economies of scale and significantly reduces the economic value from the adoption of the appropriate operational strategies.

5.4 Recommendations

The study found that not all firms all the operations strategies and were therefore not getting all the benefits that accrues from applications and implementation of all the operations strategies. It is recommended that architectural firms train their managers in business management and that they have clearly defined and implemented operations strategies and work processes. Firms should invest in ensuring they have highly skilled

employees who are a valuable resource to firms. They should also invest in technology and be innovative in their services. The recommendations of the study are that since there are limited empirical investigations on operations strategies in the architectural consulting firms in Nairobi. This forms a good ground for the academicians to examine the research gaps in this area. This is since the findings of this study will be evaluated considering its limitations.

5.5 Limitations of the Study

The focus of the study was on architectural consultants in Nairobi only. Being a localized study there is need to undertake similar studies in architectural consultants outside Kenya for the conclusions arrives at and the study to be generalized about all architectural consultants. Similarly, the findings may not necessary be appropriately applied to other operation strategies being undertaken by similar organizations whose orientation could be different from that of architectural consultant

5.6 Suggestions for Further Research

The focus of the study was on operations strategies of architectural consulting firms. Further study is recommended on operations strategies applied by other consulting firms in the service. Focus can also be on consulting firms in the construction industry. With the ever changing and competitive operating environment a study should be done to show how firms can survive and thrive in this environment by formulating and implementing operations strategies to guide their operations.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

SECTION I: RESPONDENTS AND FIRM PROFILE

1. What is the name of your firm_____?
2. What is your position/role in your firm?
 - a) Director []
 - b) Associate director []
 - c) Manager []
 - d) Architect []
 - e) Other []
3. What is your age bracket?
 - a) Below 25 years []
 - b) 26-35 years []
 - c) 36-45 Years []
 - d) 46-55 Years []
 - e) Above 55 Years []
4. What is your highest level of education?
 - a) PHD []
 - b) Master's degree []
 - c) Undergraduate degree []
 - d) Diploma []
 - e) others [specify]_____

5. i) Are registered with any professional body?

a) Yes []

b) No []

ii) If yes, which body?

a) BORAQS []

b) AAK []

c) RIBA []

d) Other []

6. What is the duration of your continuous service with the firm?

a. Less than five years []

b. 6-10 years []

c. 11-15 Years []

d. 16-20 years []

e. Over 20 Years []

7. What is the status of your firm's registration?

a) Private Limited Company []

b) Public Limited Company []

c) Partnership []

d) Sole proprietor []

e) Regional based company []

f) International Company []

8. How many years has the firm been in practice?

- a) Less than five years []
- b) 6-10 years []
- c) 11-15 Years []
- d) 15-20 years []
- e) Over 20 Years []

9. How many directors /Partners does your firm have?

- a) 1 []
- b) 2 []
- c) 3-5 []
- d) Over 5 []

10. How many employees does the firm have?

- a) 0-5 Employees []
- b) 6-10 Employees []
- c) 11-15 Employees []
- d) 16-20 Employees []
- e) Over 20 employees []

11. What is the percentage of the firm's employee's skills?

	0%-25%	25%-50%	50%-75%	75%-100%
PHD				
Master's degree				
Undergraduate				
Diploma				
Other				

12. Are the directors trained in Business Management?

- a) Yes []
- b) No []
- c) I don't Know []

SECTION II: OPERATIONS STRATEGIES

13. Please indicate which of the following statements apply to your firm.

1. Very Low Extent 2. Low extent 3. Moderate extent 4. Great extent 5. Very great extent 6. Not applicable

<u>Indicators</u>	Yes	No	I don't Know
The firm has clearly formulated vision and mission statements			
The firm has clearly formulated corporate strategies			
The firm has clearly formulated operations strategies			
The firm has clearly defined quality policy			
Both the management and staff participate in the strategy formulation process			
The firm has clearly defined succession plan			
The firm has clearly defined Standard Operating Processes			

(SOP)			
The work processes are clearly defined			
The firm has clearly defined systems for its operations			
The firm has a system that helps teams to organize, track, and manage their work			
The firm has a system that measures time spent on a project			
The firm has a system that measures cost per project			

14. To what extent does the firm consider the following competitive strategies when offering its services? Tick (√) appropriately.

1. Very Low Extent 2. Low extent 3. Moderate extent 4. Great extent 5. Very great extent 6. Not applicable

<u>Indicators</u>	1	2	3	4	5	6
Quality						
Speed or time						
Cost/Price						
Flexibility						
Dependability/Reliability						

15. To what extent do you agree with the following statements. Tick (√) appropriately

Very Low Extent 2. Low extent 3. Moderate extent 4. Great extent 5. Very great extent

6. Not applicable

<u>Indicators</u>	1	2	3	4	5	6
The customer clearly gives the expected work objective at the beginning of a project						
Meeting the needs and expectations of the customer is especially important to the firm						
The firm consistently increases customer base per year						
Most of the firm's clients are repeat customers						
The firm focuses on product and service improvement						
Research and development are significant to the firm						
The firm stays abreast of current developments in its field						
The firm leverages technology to improve the delivery success of projects						
The firm undertakes competitor bench marking						
The firm completes most of its projects on time						
Most projects are completed within budget						
The firm is accommodating to customer needs						
The firm is able to provide a choice of different schemes to the customer						
The firm is able to provide unique products and services as per the customer's needs						

SECTION III: PERFORMANCE OF FIRMS

16. What is the percentage Operation strategies in the firm's portfolio?

	0-10%	10-25%	25-40%	40-55%	55-70%	70-85%	85-100%
Commercial Building							
Residential Buildings							
Mixed Use Developments							
Industrial Developments							
Interior Fit-outs							
Hospitality Developments							
Health & Community Developments							
Others							

17. What is the percentage at which projects failed to take off within the last 5 years in your firm?

- a) 0%-25%
- b) 25%-50%
- c) 50%-75%
- d) 75%-100%

18. What are the reasons the projects failed to take off?

- a) Funding
- b) Budget Constraints
- c) Customer Indecision
- d) Statutory Approvals
- e) Under Estimation of Completion Time
- f) Technical Reasons
- g) Other

19. Please tick (✓) appropriately to indicate the firms' turnover over the last three years.

Turnover (Kshs)	2013	2014	2015	2016	2017
0-25 Million					
26-50 Million					
51-75 Million					
76-100 Million					
Over 100 Million					

20. What is the percentage to which the firm achieved its set performance targets within the last five years?

- a) Below 0% []
- b) 0%-25% []
- c) 25%-50% []
- d) 50%-75% []
- e) 75%-100% []
- f) Over 100% []

**APPENDIX II: LIST OF ARCHITECTURAL CONSULTING FIRMS IN
NAIROBI**



**BOARD OF REGISTRATION OF ARCHITECTS AND QUANTITY
SURVEYORS (BORAQS) KENYA
LIST OF REGISTERED ARCHITECTURAL FIRMS**

No.	Reg No.	Name of firm	Address
1	001A	S. K. Archplans	50725 - 00200 NRB
2	002A	Nyanja Associates Architects	52661-00200 NRB
3	003A	Githunguri & Partners	60437 - 00200 NRB
4	004A	Waweru & Associates	43642 - 00100 NRB
5	005A	Intershelter Sullivan Architects	51884 - 00200 NRB
6	006A	Raj Architects	48087 - 00100 NRB
7	007A	Crowder Associates	
8	008A	Design Consortium	
7	009A	Tectura-International	54634 - 00200 NRB
8	010A	T.S. Nandra & Associates	42130 00100 NRB
9	012A	Atelier International (Architects)	48486 - 00100 NRB
10	013A	Planning Systems Services Ltd.	188 - 00606 NRB
11	014A	Graham Jenkinson	
12	015A	H.S. Nandra, Consulting Architect	46186 - 00100 NRB
13	016A	Complan Consulting Architects	66314 - 00800 NRB
14	017A	Associated Architects	14569 - 00800 NRB
15	018A	Arplad Architects	54777 -00200 NRB
16	020A	Artform	
17	021A	Planoconsult	54959-00200 NRB
18	022A	Designtech Architects	
19	023A	Architerion Architects & Interior Designers	41408 - 00100 NRB
20	024A	Metroplan Systems Ltd.	57026 - 00200
21	025A	Wachoraji Associates	11677 - 00400 NRB
22	030A	Hughes & Polkinghorne	
23	031A	Romani Architects	12144 NRB
24	032A	Archi-Consult Associates	66526 - 00800 NRB
25	033A	Designarch International	
26	034A	Edon Consult	19684 - 00202 NRB
27	035A	Sancas Architects Associates	50114 - 00200 NRB
28	037A	Govani Associates	14533 - 00800
29	039A	Triad Architects	30725 - 00100 NRB
30	040A	Contedesign	66669 -00800 NRB

31 042A Boma Consultants Architects 72635 - 00200 NRB
 32 043A Ebrahim Consultants 34838 - 00100 NRB
 33 044A Karago & Associates 2131 - 00200 NRB
 34 046A Mutiso Menezes International 44934 - 00100 NRB
 35 047A Mruttu Salmann & Associates 494-00100 NRB
 36 049A Beglin Woods 22759 - 00400 NRB
 37 050A Zastruga (K) – Architects 57773 - 00200 NRB
 38 051A Planning & Design Associates
 39 053A Mwacharo & Associates 28329 - 00100 NRB
 40 054A Chudha International Ltd. 19 - 00606 NRB
 41 055A A. Hamid Architects
 42 056A Gitau Associates
 43 057A Cornerstone
 44 058A Plan Style 58151 - 00200 NRB
 45 059A Ngibuini & Associates 42779 - 00100 NRB
 46 060A Denis Lenferna Architects
 47 061A Africa Planning and Design Consultants 40086 NRB
 48 062A Soli Shroff & Associates
 49 063A Satish Shah 14468 - 00800 NRB
 50 064A Thara Consultants
 51 065A Heritage Arch – Studio Ltd.
 52 066A Arqes Africa
 53 068A Ngotho Architects 43751 - 00100 NRB
 54 069A Arprim Consultants 12969 - 00400 NRB
 55 070A Lins Consult 1555 - 00100 NRB
 56 071A J. S. Kalsi & Associates 10766 - 00400 NRB
 57 072A Rambaldo Associates 43947 - 00100 NRB
 58 073A Giovanni Aldo Sardelli 60289 - 00200 NRB
 59 074A Tecta Consultants 3347 - 00100 NRB
 60 075A Wambugu Mathews & Associates
 61 076A Mode Architects
 62 077A Baseline Architects 39928 - 00623 NRB
 63 078A Rimba Planning Systems 54590 - 00200 NRB
 64 079A Aaki Consultants 66091 NRB
 65 080A Tej Architects 27644 - 00506
 66 081A Archscan Associates 10958 - 00100 NRB
 67 082A Jami-Trident Associates 664 - 50300 MARGL
 68 083A Space Form Studio
 69 084A Third Dimensions Concept 19929-00202 NRB
 70 085A PYE Architects
 71 086A Synthesis Architects 15266 NRB
 72 087A Trzebinski, Gaal & Associates
 73 088A Mwendwa & Associates 46274 - 00100 NRB
 74 089A Siat Architects 66002 - 00800 NRB
 75 090A P. V. Patel – Architects
 76 092A Dice Concept 28 - 00100 NRB

77 093A Concise Architects 69721 - 00400 NRB
78 094A Kenchuan Architects 19895 - 00202 NRB
79 095A V.D. Chaniyara – Architect 95575 - 80106 NRB
80 097A Wesley Nyariki & Partners
81 098A Arch-One Consultancy 49805 - 00100 NRB
82 099A Space & Systems 54560 - 00200NRB
83 100A Building Design Consortium Limited 959 - 00606
84 101A Achera & Partners 101114 - 00400 NRB
85 102A Ramani Consultants 48253 - 00100 NRB
86 103A Pyramid Consultants 2775 - 00100 NRB
87 104A Zed-Arch (K) 53355 - 00200 NRB
88 105A Mucina Ezekiel & Associates
89 106A Habitech Consultants 66495 - 00800 NRB
90 107A T.S. Brar & Associates 20413 - 00100 NRB
91 108A Design Factory
92 109A Lulu Associates 59970 - 00200 NRB
93 110A Mburu J.M. Architects 6229 - 00100 NRB
94 111A K & M Archplans Architects 76240 - 00508 NRB
95 112A Archiaze Architects
96 113A Husseinini Associates
97 114A Amgahia Associats Architects 59293 - 00200 NRB
98 115A Marco Emidio Sardelli 60289 - 00200 NRB
99 116A Chani Lall Partnership Architects
100 117A ARCAID Architects & Interior Designers 24530 NRB
101 118A Gilbert Kibe & Partners 14417 - 00800 NRB
102 119A A.D. Design Architects 88614 - 00100 NRB
103 120A Clarion Architects 79047 - 00400 NRB
104 121A Landplan Kenya 24640 - 00502 NRB
105 122A Shamla Fernandes Architect 46547 - 00100 NRB
106 124A Bowman Associates 63756 - 00619 NRB
107 125A Space Creators Architects Planners
108 126A Maya Plan 807- 00606 NRB
109 127A Linear Systems
110 128A Nature Architects 15646 - 00100 NRB
111 129A Laap Associates 20690 - 00100 NRB
112 131A Alonzi & Associates
113 132A Studio Infinity Architects 421 - 00606 NRB
114 133A Busuru R.M. & Partners
115 134A E.D.G. & Atelier 51676 - 00200 NRB
116 135A Planners De Moderne’ 39204 NRB
117 136A Kisonyo Odwori & Associates 69710 - 00400 NRB
118 137A Archetype Architects and Designers 58412 - 00200 NRB
119 138A Nyaundi Architects 10753 - 00100 NRB
120 139A Two Designs Architects 89436 MSA
121 140A Boundless Architects & Interior Designers 9668 - 00100 NRB
122 141A Dagliesh Marshall Johnson 42878 - 00100 NRB

123 142A Architectural Resources (K) 75584 - 00200 NRB
124 143A Promarc Consultancy 13493 - 00800 NRB
125 144A Images Architects 33975 - 00600 NRB
126 145A Technarch Consultants 56295 - 00200 NRB
127 146A Delta Space Architects
128 147A Octa Architects & Interior Designers 16270 - 00100 NRB
129 148A ARCH Concepts 53276 - 00200 NRB
130 149A RAY PLAN Architects 22994 - 00400 NRB
131 150A Scenario Architects
132 151A AXIS Architects
133 153A Dreams Architects 21939 - 00400 NRB
134 154A Adventis Ltd. (merged with Inhouse)
135 156A U Design Refer to 181A
136 157A Genesis Architects 3385 - 00100 NRB
137 158A Arlplan Architects 52717 - 00200 NRB
138 159A Makro Consultancy APC 5461 - 00506, NRB
139 160A Alliance Archforms 64317 - 00620 NRB
140 161A Archgrid Systems 13725 - 00800 NRB
141 162A Inter Architects 5015 - 00506 NRB
142 163A Uto Creations Studio 66538 - 00800 NRB
143 164A Design Solutions 58209 - 00200 NRB
144 165A Skair Associates 14050 - 00100 NRB
145 166A Lexicon Plus Ion Limited 2772 - 00200 NRB
146 167A Ichangai Gichuhi & Associates 54821 - 00200 NRB
147 168A Michie & Associates 46786 - 00100 NRB
148 169A Studio Partners 46246 - 00100 NRB
149 170A Green Arch 253 - 00606 NRB
150 172A Peter Thomas Architects
151 174A Arch-Link International Limited 54515-00200
152 175A Morphosis Limited 2682 - 00202 NRB
153 176A Maestro Architects Ltd. 6644 - 00100 NRB
154 177A Details 2 Detail Architects 15184 - 00100 NRB
155 178A APT Building Associates 5753 - 00100 NRB
156 179A ImageOn Consultants 5408 - 00100 NRB
157 181A U Design 74801 - 00200 NRB
158 183A Archten Architects 66358 NRB
159 184A Metaphors Designs 4939 - 00200 NRB
160 185A Delta Architects 56548 - 00200 NRB
161 187A Cadplan Architects Ltd. 4475 - 00506 NRB
162 188A Wainda Consultants 16451 - 00100 NRB
163 189A Dimensions Architects & Interior Designs Ltd. 55459 NRB
164 190A Spatial Systems Architects 52476 - 00200 NRB
165 192A Mwathi Associates 25185 - 00603 NRB
166 193A Strasa Architects 56858 - 00200 NRB
167 194A Fairplan Architects (Dissolved) 8621 - 00300 NRB
168 197A APT Design Solutions 32190 - 00600 NRB

169 198A Designworth Architects 56940 - 00200 NRB
170 199A Shelter Consult 43167 - 00100
171 200A Comarch Consortium 2379 - 00100 NRB
172 201A Form Space Alliance Ltd. 46786 - 00100 NRB
173 202A Datum Consultants 12217 - 00100 NRB
174 203A Alpad Architects 9320 - 00300 NRB
175 204A Archi-Space Architects Consultancy 75688 - 00200 NRB
176 205A Team 2 Architects 63348 - 00619 NRB
177 206A Green Designs 6099 - 00100 NRB
178 207A Align Architects 64348 - 00620
179 208A Decipher Technical Consult 61392 - 00200 NRB
180 209A Radius Architects 61039 - 00200 NRB
181 210A Joel E.D. Nyaseme & Associates 21537 NRB
182 211A Ikibbi Architects 51350 NRB
183 212A Charles & Associates 51451 - 00200 NRB
184 213A Abode Designs 14787 - 00100 NRB
185 214A Design Solutions Ltd. 58209 - 00200 NRB
186 215A Batiment Group Ltd 15186-00100 NRB
187 216A Icon Systems 12698-00400 NRB
188 217A AKA Studio Limited 47799 - 00100 NRB
189 218A Tarakibu Miwa Designs Ltd. Architects 15462 - 00100 NRB
190 219A Inbred Architects 58121 - 00200 NRB
191 220A Alcazar Architects 4622 - 00100 NRB
192 221A Arcs Africa 13211 - 00100 NRB
193 222A Envobuild Systems 66533 - 00800 NRB
194 223A Tectonics International 38552 - 00623 NRB
195 224A Archipoint Consulting Architects 12443 - 00100 NRB
196 225A Chireah Associates 51577 - 00200 NRB
197 226A Motech Systems 2503 - 00100 NRB
198 227A Gem Archplans 12182 - 00100 NRB
199 228A Sparch Architects 4789 - 00100 NRB
200 229A FNDA Architecture (K) Ltd. 66866 - 00800 NRB
201 230A Archidraw Associates 60083 - 00200 NRB
202 231A Aktasis Consultants 20701 - 00100 NRB
203 232A Wamwangi and Associates 667 - 00517 NRB
204 233A Shelter Solutions Ltd. 17095 - 00100 NRB
205 234A Otieno & Kungu Associates 72413 - 00200 NRB
206 235A Kanja & Partners Architects 66050 - 00800 NRB
207 236A Block Forty Five 31398 - 00600 NRB
208 237A Ultimate Design Ltd. 27090 - 00100 NRB
209 238A Spectrum Architects 14869 - 00800 NRB
210 239A Arch-Views Consultants 46910 - 00100 NRB
211 240A Otto Mruttu & Partners 76382 - 00508 NRB
212 241A Design Artitude Limited 39859 - 00623
213 242A Boshak Consultants 4907 - 00100 NRB
214 243A Symbion (Kenya) Ltd. 24002 - 00502 NRB

215 244A Linarch Consultants 57026 - 00200 NRB
 216 245A Diaz Design Consult Co. Ltd. 4117 - 00200 NRB
 217 246A Shelter Space Architects 682 - 00606 NRB
 218 247A Metrosystems Architects 67834 - 00200 NRB
 219 248A Abbey Architects Ltd. 20917 - 00100 NRB
 220 249A Dama Services 96560 - 00100 NRB
 221 250A Cosmoplan Consultants 74623 - 00200 NRB
 222 251A Domus Architects 16459 - 00100 NRB
 223 252A Portal Consultancy 804 - 00618 NRB
 224 253A Amkan Consultants 1390 - 00618 NRB
 225 254A Image Architects 5408 - 00100 NRB
 226 255A Design Source Ltd 3282 - 00200 NRB
 227 256A Ace Designs 60473 - 00200 NRB
 228 257A Atticspace 6937 - 00100 NRB
 229 258A Space Link Architects 73509 - 00200 NRB
 230 259A Kioto Consultants 69612 - 00400 NRB
 231 260A Capital Architects 32391 - 00600 NRB
 232 261A Brickhouse Consultants 16784 - 00620 NRB
 233 262A Jofrok Building Consultants 7233 - 00300 NRB
 234 263A Archspirations Limited 18735 - 00100 NRB
 235 264A Blink Studio Ltd. 25269 - 00100
 236 265A Oak Architects 27555 - 00506 NRB
 237 266A RMA Architects 44624 - 00100 NRB
 238 267A Tego Arch. Systems 68035 - 00200 NRB
 239 268A Mi Casa Design 2302 - 00621 NRB
 240 269A Leeds Building Associates Ltd. 26326 - 00100 NRB
 241 270A Continental Designs Ltd. 4660 - 00200 NRB
 242 271A RON Architects 39849 - 00623 NRB
 243 272A Miwa Designs 58634-00200 NRB
 244 273A Tektoconsult 12258-00400 NBI
 245 274A Tarakibu Architects 15462-00100 NRB
 246 275A Scenic Systems 5408-00100 NRB
 247 276A Onesmus Mwatu Architects 6882-00300 NRB
 248 277A Gibb Architects Limited 30020 - 00100 NRB
 249 278A Diaspora Design Build Limited 16491-00100 NBI
 250 279A Kombe Consultants 4973-00200 NBI
 251 280A Designspec Limited 30846 -00100 NBI
 252 281A Kagen Consult 69659-00400 NBI
 253 282A Conarch Associates 14222 - 00800 NBI
 254 283A Sycum solutions co. limited 11954 - 00100
 255 284A Icon Concepts Limited 17948-00500 NBI
 256 285A Aleem Manji Architects 39547 -00623 NBI
 257 286A Plence Architects Limited 76069 - 00508 NBI
 258 287A Ancolin And Associates 6784-ELDORET
 259 288A Infrastructure Design Systems Ltd 54056-00200 NBI
 260 289A Kogs Realms 222-00517

261 290A Gradient Architects 8658 - 00100 NBI
 262 292A Outsource Designs 911-00502 NBI
 263 294A Innovative Planning and Design Consultants 1575 - 00502 NBI
 264 295A Castles Architecture Design 51000 - 00200 NBI
 265 297A Syntax Architects 1670 - 00621 NBI
 266 298A Fairplan Systems Limited 8621 - 00300NBI
 267 299A Urban Architecture Solutions (UAS) 4938 - 00100 NBI
 268 300A Insignia Dezyns Limited 64394 - 00620 NRB
 269 301A Innovative planning & Design Cosultants Ltd 1575 00502 NBI
 270 302A Acrick Consultants Limited 23 - 00100 NBI
 271 303A Boogertman and Partners Architects Limited 2041 - 00606 NBI
 272 304A Studioarchitetto Limited 131 - 00517 NBI
 273 305A FHG Architecture (K) Limited 66866 - 00800 NBI
 274 306A Synergy Arc Limited 22847 - 00100 NBI
 275 307A Leisure Build Architects 335 - 00621 NBI
 276 308A IRIS Architects 78856 - 00507 NBI
 277 309A Avanti Architecture Limited 1984 - 00606 NBI
 278 310A Venture Architects Limited 74642 - 00200 NBI
 279 311A Bon-Arch Associates Limited 4780-00100NRB
 280 313A M and R Consult Limited 20111 - 00100 NBI
 281 314A NA Projects International Limited 10753 - 00100NBI
 282 315A Konvex Designs 102535 - 00101 NBI
 283 316A Built-Berg mansions (BBM) 33 - 00623 NBI
 284 317A Archisolve Systems 5643 - 00200 NBI
 285 318A Archbuild Limited 14575 - 00100 NBI
 286 319A Decalogue International Limited 51266 - 00100 NBI
 287 320A Span Architects Limited 615 - 00100 NBI
 288 321A Arcscene Architects Kenya Limited 21845 - 00505 NBI
 289 322A Creative Aptitude 1288 - 80108 KILIFI
 290 323A ME & A LLP 9 - 00621 NBI
 291 324A Architect Ndarua and Associates Limited 49274 - 00100 NBI
 292 325A Gitutho Architects and Planners Limited 1634 - 00100 NBI
 293 326A Amal Consortium 18696 - 00500 NBI
 294 327A Nabuni Architects Limited 2688 - 00202 NBI
 295 328A Questworks Architecture Limited 18724 - 00500 NBI
 296 329A NESSA Designs 18456 - 00100 NBI
 297 331A Heritage Associates Limited 56293 - 00200 NRB
 298 332A Hassan And Kibet Consult Limited 1548 - 00200 NBI
 299 333A Intrinsic Architecture 62201 - 00200 NBI
 300 334A Panache Management Limited 39693 - 00623 NBI
 301 335A Kanyue and Partners Architects 54728 - 00200 NBI
 302 336A Odesey International Limited 100727 - 00101 NBI
 303 337A Cave Limited 50565 - 00200 NBI
 304 338A Archetypum Afrika 14531 - 00100 NRB
 305 340A Brickehaus Limited 49891 - 00100 NRB
 306 341A Locus Studio Limited 18689 - 00100 NRB

307 342A Office for Creative Architecture limited 24154 - 00100 NRB
308 343A Studio Fourteen Limited 22202 - 00400 NRB
309 344A Pharos Architects Kenya Limited 66776 - 00800 NBI
310 345A Spaceart Architects Limited 36811 - 00200 NBI
311 346A Sketch Studio 1297-00606 NBI
312 347A Trine Architects Ltd 643-00100 NRB
313 349A Arch Grup Consultants 1302 - 00100 NRB
314 350A Wanda Synergy Limited 26456 - 00100 NRB
315 351A Tsavo Arcitects Limited 15854 - 00509 NRB
316 352A Integrated Design Studio Limited 35222 - 00100 NRB
317 353A House of Architecture 35577 - 00100 NRB
318 354A Kujenga Group Limited 59745 - 00200 NRB
319 355A Archscan Associates Limited 10958 - 00100 NRB
320 357A Kubuni Studio Limited 30446 - 00100 NRB
321 358A Design Masters Studio Limited 101176 - 00101 NRB
322 359A Ecotecture Limited 856 - 00606 NRB
323 360A Studio Verv Limited 2240-00606 NRB
324 361A Fineline Studio Limited 101285-00101 NRB
325 363A Trioscape Ltd 50219-00200 NRB
326 364A Abode Designs Limited 14787-00100 NRB
327 365A Aspera Limited 15877-00509 NRB
328 366A Edesign Studios Limited 2178-00502 NRB
329 367A Trioscape Space Planning Ltd 66652-00800 NRB
330 368A Pacer Architects Limited 9510-00200 NRB
331 369A Scope Design Systems Limited 10591 - 00100 NRB
332 370A Studio Culture Limited 51332-00100 NRB
333 371A Huduma Consulting Limited 4563-00506 NRB
334 373A Cintra Studio 105969-00101 NRB
335 374A Infive Architects Ltd 2523-00606 NRB
336 375A AIA Architects Ltd 13310-00100 NRB
337 376A Trident Architects International Limited 77582-00611 NRB
338 377A Precise Architects Ltd 24694-00100 NRB
339 378A Do Designs Consultants Ltd 44952-00100 NRB
340 379A Insync Designs Ltd 21743-00100 NRB
341 380A Adroit Architecture Limited 708833-00400 NRB
342 381A Truphena & Associates 63301-00619 NRB
343 382A Jawkim Consulting Architects LLP 60300-00200 NRB
344 383A Space Form Studio Ltd 47450-00100 NRB
345 387A Skyarch Limited 51584-00100 NRB
346 388A Grasp Design Limited 73484-00200 NRB
347 389A Cedarstone Enterprises Ltd 60387-00200 NRB
348 391A Salcohm Studios Limited 49286-00100 NRB

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