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Value Creation in Strategic Alliance: Case Study of the Kenya Construction Industry



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MBA/87550/15

**Submitted in partial fulfillment of the requirements for the award of a Master's in
Business Administration (MBA) Degree**

Strathmore Business School

MAY, 2019

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May 2019

Approval

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ABSTRACT

A construction sector product needs to create an added value to its clients. Despite its critical importance in the country, the construction industry has continued to face a lot of challenges that have hindered its growth as well as full potential exploitation and benefit enjoyment. This study sought to address this problem by assessing value creation in strategic alliances in the Kenya Construction Industry. Specifically, the study sought to identify strategic alliances adopted in the Kenya Construction industry, the factors that determine the success or failure of strategic alliances and to assess value creation in strategic alliances in the Kenya Construction Industry. The study was grounded on the resource dependence theory, the porter's value chain model and Knowledge Accessing Theory of Strategic Alliances. Descriptive research design was adopted and primary data collected using a questionnaire. Data analysis involved the use of descriptive statistics (frequencies, mean and standard deviation) and inferential statistics (correlation analysis) and the results were presented in form of tables and figures. The study findings indicated that firms in the construction industry had adopted various strategic alliances which included mergers, associations and joint ventures. The study also found that the foundation of strategic alliances success is mainly due to factors amongst them trust, commitment, top management input, coordination and communication, clarity of objectives and goals, monitoring and evaluation policies and defined roles and responsibilities of each party involved in the alliances. Further, the study found that projects under strategic alliances did perform well which was an indication of value creation. This was because most firms reported having been able to run the projects at the projected costs, being timely, meeting the quality requirements and satisfying their customers. Finally, findings revealed that the value creation benefits of strategic alliances included technology uptake that is exposure to technically advanced technology and acquiring faster ways of service delivery, skills and competence such as acquiring new and improved skills, expertise which comes about through improved ways of handling issues and new experiences which enhanced eligibility and quality services such as improved systems and methods for quality assurance, increased customer satisfaction and better reputation. Thus, the study concluded that undertaking projects in strategic alliances lead to value creation in the construction industry. The study recommended regulation authorities in the Kenyan Construction to propose a policy that would encourage formation of strategic alliances by firms undertaking projects. Further, firms that have adopted alliances or who intend to form alliances were also recommended to formulate clear objectives and goals of the alliances, clarify the roles and responsibilities of each party, to formulate monitoring and evaluation policies and adopt effective channels of communication at the formation stage of the alliances to counter the any challenges that may arise during the execution of the projects.

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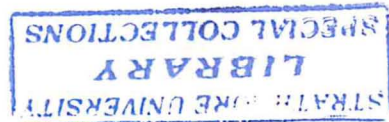
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LIST OF ABBREVIATIONS AND ACRONYMS

CAK	-	Competition Authority of Kenya
GDP	-	Gross Domestic Product
KNBS	-	Kenya National Bureau of Statistics
NCA	-	National Construction Authority
NCC	-	National construction Corporation
OLS	-	Ordinary Least Squares
R&D	-	Research and Development
USA	-	United States of America
USAID	-	United States Agency for International Development

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To all I say, God bless you.

DEDICATION

To my daughters Mbula, Mukai and my wife Jacinta Mwende.

To the University and all the staff whom I interacted with and who made this opportunity possible.

To my dear parents, Veronica and Jeremiah Nzioka(Mbuvi) Kilonzo, who planted a seed in me long before I could understand its meaning and nurtured it into faith, hard work, integrity, perseverance, excellence and many more values. You have constantly inspired me and showered me with love

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Today's environment requires firms to embed in relationships with other actors in order to gain access to resources needed. Hakansson and Snehota (2007) argue that no business is an island indicating that companies are involved in long-term relationship and that the atomistic company does not exist. In order to be successful, organizations are strategically aware. They understand how changes in their competitive environment are unfolding. They are actively looking for opportunities to exploit their strategic abilities, adapt and seek improvements in every area of the business, building on awareness and understanding of current strategies and successes. Organizations are acting quickly in response to opportunities and barriers. Leaders, in businesses are progressively recognizing that the global challenges facing the world require partnership and collaborative efforts across all economic sectors to respond effectively (Hakansson & Snehota 2007).

During the last few decades, adopting alliances and collaborative relationships has become essential for companies in a broad range of industries in order to stay competitive in fast-changing global markets (Doz & Hamel, 1998). Strategic alliancing concept of strategic management is not new as it has been in practice for the last three decades or so. Many researches has been undertaken on the concept especially in the manufacturing and services industry. Within the construction industry, experience in a number of EU member states indicates that companies engaged in projects with a collaborative approach achieve better outcomes than those working under conventional arrangements (Rigby *et al.*, 2009).

Value creation involves activities that enhance the worth of products and goods for customers (Sarkar, 2008). In a broader sense, value is created for customers to ensure their satisfaction, for employees to motivate themselves towards the organizational goals, and for investors to maximize their wealth. In a competitive environment, firms try to perform customer centric operations to achieve competitive advantage over their rivals.

1.1.1 Value Creation

Certain frameworks such as the Porter's competitive analysis, resource based view, resource advantage theory and business process view have portrayed value creation in firms as

benefiting in terms of adding to the competitive advantage (Gummerus, 2013). Value creation, as depicted by Mizik and Jacobson (2013), is the cornerstone for marketing. This is because the primary focus, the scope and the purpose of the marketing concept is the customer. Therefore, creating value for an organization's customers is important in gaining a competitive advantage.

According to Kimeli (2013), value creation involves enhancing the worthiness of firm's products and services for customers. Value creation motivates employees in their work, encourages investors to invest in the firms and ensures customer satisfaction. Further according to Pitelis and Vasilaros (2010) value creation is important in increasing the competitive advantage of a firm only in the long run. It contributes to added competitive advantage through minimizing cost exchanges, improving transactional relationships, developing social capital and facilitating the generation of intellectual capital. In order to successfully achieve value creation, cooperation among all stakeholders and collaboration between actors is essential (Jensen, van der Voordt & Coenen, 2012).

There are two components that determine the value of products: benefits and sacrifices (Kotler & Keller, 2012). The benefits of products can be viewed from the alternative solution, quality, and customization of the products, while the benefits of service accompanying such products can be seen from the dimension of service quality. In addition to the benefits of the products and services, there are still more benefits from the relationship that consists of image, trust and solidarity. Meanwhile, the sacrifices consist of the price (monetary) to be paid to get the product (including the accompanying services) and sacrifices in terms of time, effort and energy needed to obtain it and the resulting conflicts (Lapierre, 2010)

As informed by Betts & Ofori (1999), construction firms in the developing economies need to install progressive strategic management analysis practices if they are to survive the high competition posed by the large foreign construction firms following the adoption of free-market economic policies by many African governments like Kenya. Local companies will require building development policies with long-term perspective in order to survive the large firms, the dynamic change in public sector development budgets, and the rising performance demands and changing industrial practices.

Measuring project performance is important as it indicates the status and the direction of the project (Ali & Rahmat, 2010). Project performance is measured for many reasons such as benchmarking, rewarding and monitoring whether the firm's strategy is working well at all levels of the organization. Project performance metrics are used for ex post evaluation and are designed as relative measures comparing planned and actual performance. Performance can be monitored in ongoing projects by benchmarking with typical industry figures during different project phases (Yun Choi, Oliveira & Mulva, 2016).

In this study, value creation was measured using the level of technology uptake by the various construction firms, the skills and competency of the workforce and the level of expertise of their and professionalism. Other dimensions used to measure value creation included the quality of services, cost effectiveness as well as the timeliness in service delivery by the construction companies

1.1.2 Strategic Alliances

Strategic alliances are partnerships of two or more corporations or business units that work together to achieve strategically significant objectives that are mutually beneficial (Farris, 2017). The potential of strategic alliances strategy is enormous (Elmuti & Kathawala, 2016). If implemented correctly, it can dramatically improve an organization's operations and competitiveness (Brucellaria, 2017). According to a survey conducted by Coopers and Lybrand (2017), 54 percent of firms that formed alliances did so for joint marketing and promotional purposes. Companies are forming alliances to obtain technology, to gain access to specific markets, to reduce financial risk, to reduce political risk, to achieve or ensure competitive advantage (Wheelen & Hungar, 2016). Strategic alliances are becoming more and more prominent in the global economy. The number of strategic alliances doubled from 1987 to 1997 (Booz & Hamilton, 2013). More than 20, 000 corporate alliances have been formed worldwide and the number of alliances grows by 25 percent each year since 1987' (Farris, 2017).

Strategic alliances have different structures based on the type of relationship between the firms in the alliance (Kale & Singh, 2009). The Inter organizational arrangements can be categorized in terms of equity sharing and contractual agreements. The various forms of strategic alliances are mergers, joint ventures and associations. According to Adhiambo (2009), Mergers are

transactions in which the ownership of companies, other business organizations, or their operating units are transferred or consolidated with other entities. On the other hand, Kale, Singh and Raman (2009) argue that a joint venture is business entity created by two or more parties, generally characterized by shared ownership, shared returns and risks, and shared governance. Associations according to Buji (2013) are groups of businesses that come together for a common purpose with a motive to combine their energy and share resources to create or provide services and programs which they desire for themselves.

Coopers and Lybrand (2017) study rated growth strategies and entering new markets among the top reasons for forming strategic alliances. Companies simply do not have the time to establish new markets one-by one. In today's fast-paced world economy, this is increasingly true. Therefore, forming an alliance with an existing company already in that marketplace is a very appealing alternative (Ohmae, 2012). Another reason for forming strategic alliances has been to obtain technology (Elmuti & Kathawala, 2016). Not all companies can provide the technology that they need to effectively compete in their markets on their own. Therefore, they are teaming up with other companies who do have the resources to provide the technology or who can pool their resources so that together they can provide the needed technology. Both sides receive benefit from the partnership (Hsieh, 2014).

Another reason for forming strategic alliances is to outsource business functions, which can include, marketing, production, accounting, sales, or virtually any other process, to a company which can do it better and cheaper (Quinn, 1995). Reducing the financial risk is yet another reason for forming strategic alliances. Some companies may find that the financial risk that is involved in pursuing a new product or production method is too great for a single company to undertake. In such cases, two or more companies come together and agree to spread the risk among all of them (Wheelen & Hunger, 2011). Finally, companies form strategic alliances to ensure competitive advantage. This is particularly true for small companies. For many small companies the only way they can stay competitive and even survive in today's technologically advanced, ever-changing business world is to form an alliance with another company or companies. Small companies ``realize the mutual benefits they can derive from strategic alliances in areas such as marketing, distribution, production, research and development, and outsourcing' (Coopers & Lybrand, 2017).

Some of the success factors for strategic alliances include; trust, commitment, top management, communication, coordination and monitoring and evaluation. Trust is a key element in strategic alliances, since it can be viewed as a positive expectation regarding another's goodwill. Trust is divided into two dimensions that is goodwill trust which is faith in each other, in each other's good intentions and in each other's integrity, and competence trust which is the sense of confidence that the partner is capable of accomplishing the given tasks in an alliance (Husdal, 2009). Commitment in a strategic alliance concerns a partner's intention to continue in a relationship and if a partner intends to continue in the relationship and put effort for maintaining the alliance (Buji, 2013). Top management has primary decision making responsibility in developing corporate strategies and these managers are directly responsible to shareholders (Thechatakerng, 2014). Communication collects information about the trustworthiness of each partner, helps to manage potential conflicts, integrates potential differences and promotes coordination between different levels of hierarchy (Spralls, Hunt & Wilcox, 2011). Coordination is an essential factor in alliance relationship development for managing the interdependence (Varma, Awasthy, Narain & Nayyar, 2015). Alliance performance monitoring and evaluation shows the progress during the alliance lifecycle. Performance evaluation allows partners to understand if an alliance requires adaptations or termination (Tjemkes, Vos & Burgers, 2017).

1.2 Kenya Construction Industry

The construction industry in Kenya date back to the pre-colonial period where locally available materials, skills and technologies were utilized in and which were passed on through apprenticeship (Okaka, 2014). The industry later developed in the colonial era where both local and imported materials, skills and technologies were put into use with the imported ones dominating the market (Austin, 2010). Later towards independence, upon realizing that gainful projects were dominated by non-Africans, several initiatives aimed at enhancing the performance of the industry were established by the Kenyan Government (NCA, 2018). In this sense, the National Construction Corporation (NCC) was formed in 1966 and launched in 1967. The role of the corporation was to promote the industry through assisting local Africans in joining hands with those who were well established. The corporation however collapsed until 2011 when the National Construction Authority (NCA) was formed whose purpose was to coordinate, to regulate and to build the capacity in the construction industry (Construction Industry policy, 2018).

An overview of the Kenya's construction industry as presented in the Construction Industry policy (2018) indicated that the industry is a key driver to Kenya's economic growth and a key contributor to the country's Gross Domestic Product (GDP) as well as infrastructure development. As envisioned in Kenya's Vision 2030 agenda, the construction industry will help the country to become globally competitive and enable Kenyans to have a high quality life.

The construction sector deals with building of new houses, apartments, factories, offices and schools. It also deals with building of roads, bridges, ports, railroads, sewers and tunnels, among many other things. In addition, it deals with maintenance and repair of all of those structures and produces the basic materials such as concrete that are used to make them (Competition Authority of Kenya, 2017).

According to KNBS (2018) in the Economic Survey of 2018, the construction sector registered a lower growth of 8.6% in 2017 compared to 9.6% in 2016. Key economic indicators in the construction industry showed that the index of Government expenditure on roads increased from 462.8 in 2016 to 526.1 in 2017, due to major road projects undertaken during the review period. Further, the index of reported private building works completed in Nairobi City County rose from 409.3 in 2016 to 443.1 in 2017. On the other hand, the index of reported public building works completed in major towns registered a decrease from 69.2 in 2016 to 59.4 in 2017. During the review period, cement consumption decreased by 8.2 per cent 5,788.9 thousand tonnes in 2017. Loans and advances to the sector increased by 4.8 per cent from KSh 104.8 billion in 2016 to KSh 109.9 billion in 2017 (KNBS, 2018).

1.3 Problem Statement

Despite its critical importance in the country, the construction industry in Kenya has continued to face a lot of challenges that have hindered its growth as well as full potential exploitation and benefit enjoyment. Such challenges range from lack of good access to affordable project financing, low uptake of technology, lack of exposure to international best practices, poor expertise, low skilled workmanship and incompetence among the workforce leading to low quality works and lack of standardized monitoring and evaluation (Construction Industry policy, 2018). These challenges have contributed to low value products and services which

have eventually led to declining growth in the industry as registered in 2017 with a growth rate of 8.6 which was a drop from 2016 which had a growth rate of 9.6 (KNBS, 2018).

According to Laurell-Stenlund (2010), a construction sector product needs to create an added value to its clients. In order to address the above stated challenges and thereby attain value creation goals, construction companies need to come up with strategies which would create value of their products and services in order to increase the worth of the companies. Part of these strategies includes forging different types of strategic alliances are formed which include mergers, joint ventures and associations. While many companies undertake to form the strategic alliances with the aim of achieving value creation for their products and services, not all succeed. Certain factors which may include trust, commitment, coordination, the top management and monitoring and evaluation determine if these strategic alliances will succeed or fail. Furthermore, although the main aim of companies undertaking to conduct business together is to attain value creation, this is not always true for all. It is for this reason that this study sought to assess strategic alliances and value creation in the construction industry in Kenya.

A number of studies have been conducted focusing on strategic alliances and value creation. In Canada, Sadovnikova, Pujari and Lee-Chin (2015) studied value creation in strategic alliances. These studies were conducted in the environmental sector. Regionally, a study conducted in Nigeria by Akpotu (2016) focused on strategic alliance and operational sustainability in the Nigerian Banking Sector. Locally, Kimeli (2013) sought to establish the role of strategic alliances between USAID and Kenyan businesses in value creation. However, this study failed to assess the construction industry. Other studies conducted in Kenya assessed strategic alliances and how it affects performance (Nzuki, 2016 and Onje & Oloko, 2017) while others focused on strategic alliance and effect on competitive advantage (Kimani, 2014). This study sought to address the gaps presented by these studies by studying value creation in strategic alliances in the Kenyan Construction Industry.

1.4 Study Objectives

The general objective of this study was to assess value creation in strategic alliances in the Kenya construction industry.

1.4.1 Specific Objectives

- i. To identify strategic alliances adopted in the Kenya Construction industry.
- ii. To determine the factors affecting the success or failure of strategic alliances in the Kenya Construction industry.
- iii. To what extent has strategic alliances affected value creation in the Kenya Construction Industry.

1.5 Research Questions

- i. What strategic alliances have been adopted in the Kenya Construction industry?
- ii. What factors affect the success or failure of strategic alliances in the Kenya Construction industry?
- iii. Do strategic alliances lead to value creation in the Kenya Construction Industry?

1.6 Scope of the Study

This study focused on examining value creation in strategic alliances in the Kenya Construction industry. Further, it focused on all Engineering firms and construction companies registered with the Engineers Board of Kenya and Contractors in NCA1, NCA 2 and NCA 3 respectively. The firms were considered to provide an insight on the influence of strategic alliances in their project implementation performance and establish value created by the various alliances. Project Managers, Managing Directors, Resident Engineers amongst others from the several firms were chosen to participate in this study. The study took a period of one month in order to collect the needed data.

1.7 Significance of the Study

This study would set to be of benefit to a number of stakeholders in the construction industry. First, the findings of this study will be of importance to Clients, Construction Professionals and the National Construction Authority and other stakeholders which are involved in regulating activities in the construction industry and interested in how strategic alliance in construction industry influences the implementation of projects. Policy makers could use the findings in formulating policies and regulations aimed at encouraging value addition in the delivery construction services. Secondly, individual firms could find this study useful since the results would help them in setting the path towards successful value creation for their

customers. Future researchers could also benefit from this study as it would form a theoretical basis for future studies with a view of improving delivery of quality, timely and economical services in the construction industry.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the concept of strategic alliance, es the theoretical perspective of the study, the empirical review of previous studies in this field and the conceptual framework. The theories that anchored this study were resource dependency theory, the porter's value chain model and Knowledge Accessing Theory of Strategic Alliances. According to the resource dependency theory, firms must engage in transactions with other firms in its environment in order to acquire the needed resources. The reason is that the resources that an organization needs could be limited, not easily accessible and/or under the control of other actors. As such, organizations develop strategies aimed at enhancing the bargaining position in the resource dependent transaction. According to Porter's value creation model, value chain analysis explains how activities in an organization link to its competitive advantage. It explains how each activity both internal and external to the business contributes to the organization's products and services. Porter' value creation model further argued that an organization competitive advantage depends on its ability to perform its activities and to link the activities. The knowledge accessing theory on the other hand argues that formation of strategic alliances is motivated by the quest for certain types of resources which include knowledge sharing.

2.2 Theoretical Review

This study was based on the resource dependency theory, Porter's value chain model and Knowledge Accessing Theory of Strategic Alliances

2.2.1 Resource Dependence Theory

The resource dependence theory was developed by Pfeffer and Gerald (1978). According to the resource dependency theory, firms must engage in transactions with other firms in its environment in order to acquire the needed resources. The reason is that the resources that an organization needs could be limited, not easily accessible and/or under the control of other actors. As such, organizations develop strategies aimed at enhancing the bargaining position in the resource dependent transactions (Archibald, 2017).

The main objective of the resource dependence theory is to replace an organization with its environment in order to understand its behaviour (Pfeffer & Salancik (1978). As Ulrich and

Barney (1984) explain, in the resource dependence theory, the behaviour of a firm is affected by how it accesses critical resources from the environment. Firms in this case attempt to increase its power by reducing other firm's power (Hillman, Withers & Collins, 2009).

This theory is used to define the relationship between actors in a strategic alliance (Huxham & Beech, 2008). In the resource dependence theory perspective, power imbalances could arise when an organization holds a unique position in the alliance, having special access to critical resources or when an actor believes that the strategic alliance is of no importance (Gnyawali & Madhavan, 2001; Inkpen & Beamish, 1997 and Medcof, 2001).

Klein and Pereira (2016) asserted that the concept of dependence in the Resource Dependence Theory can be understood as the extent to which one part needs another in relation to a given resource. This relationship also expresses the measure of power of one over another. Therefore, Resource Dependence Theory is used to study and help organizations reduce uncertainty and dependence on external influences (Hillman, Withers, & Collins, 2009) with the purpose of managing their environments (Davis & Cobb, 2010; Hillman, Withers & Collins, 2009). This theory was used in this study to explain the interdependence of construction firms which lead to strategic alliances between the firms.

2.2.2 Porter's value chain model

Porters value chain model was formulated by Porter (1985). According to Porter (1985), value chain analysis explains how activities in an organization link to its competitive advantage. It explains how each activity both internal and external to the business contributes to the organization's products and services. Porter (1985) argued that an organization competitive advantage depends on its ability to perform its activities and to link the activities.

Activities in Porters (1985) value chain model are grouped into primary activities which constitute inbound logistics, operations, outbound logistics, marketing and sales, and service and which are directly concerned with the creation or delivery of a product or service. Support activities are the other category and help improve the effectiveness and efficiency of primary activities. They include procurement, technology development (including R&D), human resource management, and infrastructure (systems for planning, finance, quality, information management etc.).

Porter (1985) explains Value Chain Analysis as a collection of activities that are performed by a company to create value for its customers. Accordingly, value creation creates added value which leads to competitive advantage. Ultimately, added value also creates a higher profitability for an organization. The strength of the Porter's Value Chain Analysis is its approach. The Porter's Value Chain Analysis focuses on the systems and activities with customers as the central principle rather than on departments. This system links systems and activities to each other and demonstrates what effect this has on costs and profit. Consequently, the Value Chain Analysis makes clear where the sources of value and loss amounts can be found in the organization

The profit margin that a company realizes depends on its ability to manage the linkages of activities and therefore produce a product or service for which the customer will be willing to pay a cost that is higher than the production cost. Since a single organization does not perform all the activities from product design, production, and assembly to delivery, the interrelations between different organizations form a value system. Since the profit margin spreads across all the members of the value system, these members can cooperate to increase efficiency and reduce the production costs in order to get a higher profit margin and that will benefit all (Recklies, 2001). Therefore, this theory was used to explain the interrelation of firm's activities in order to realize a high profit benefiting both parties hence create value amongst themselves or stakeholders.

2.2.3 Knowledge Accessing Theory of Strategic Alliances

In the same way that the knowledge-based view of the firm has grown out of resource-based theory of the nature and existence of firms, knowledge-based explanations of the formation of strategic alliance formation have their roots in resource-based approaches to alliances (Grant, 1996). Drawing upon resource-dependence theory and the resource-based view of the firm, several studies such as Eisenhardt and Schoonhoven (1996), Gulati (1999) Rothaermel (2001) and Van De Ven and Walker (1984) have viewed alliances as a quest for resources. Moreover, certain types of resources appear to be particularly influential in alliance formation. The concentration of alliances in R&D intensive sectors points to technology as playing a key role in alliance formation (Dickson & Weaver, 1997; Dodgson, 1992 and Hagedoorn, 1993). As technology management became absorbed within the wider field of knowledge management, so alliances have been viewed from a broader knowledge perspective.

The knowledge accessing theory identifies two conceptually distinct dimensions of knowledge management. First, those activities that increase an organization's stock of knowledge what March (1991) refers to as 'exploration', and Spender (1992) calls 'knowledge generation'. Second, those activities that deploy existing knowledge to create value – what March (1991) refers to as 'exploitation', and Spender (1992) calls 'knowledge application'. In relation to strategic alliances, this distinction between knowledge generation and knowledge application corresponds to a key distinction in the ways in which knowledge is shared among alliance partners. Knowledge generation points to alliances as vehicles of learning in which each member firm uses the alliance to transfer and absorb the partner's knowledge base. Knowledge application points to a form of knowledge sharing in which each member firm accesses its partner's stock of knowledge in order to exploit complementarities, but with the intention of maintaining its distinctive base of specialized knowledge.

Several prior studies have distinguished these two types of knowledge sharing within alliances. Hamel (1991) notes, 'The crucial distinction between acquiring such skills in the sense of gaining access to them and actually internalizing a partner's skills has seldom been clearly drawn.' Similarly, Inkpen (1998) observed that in some alliances, partners aggressively seek to acquire alliance knowledge while in others, the partners take a more passive approach to knowledge acquisition.' From a transaction cost perspective, Hennart (1988) has also identified a similar competition/cooperation tension. The distinction between acquisition and accessing is critically important of the evolution of the alliance partners' knowledge bases.

This theory is deemed relevant for this study as it explains how the various strategic alliances allow sharing of information to improve the capabilities of the firms involved. Knowledge application corresponds to a key distinction in the ways in which knowledge is shared among alliance partners. Knowledge generation points to alliances as vehicles of learning in which each member firm uses the alliance to transfer and absorb the partner's knowledge base.

2.3 The Concept of Strategic Alliance

A strategic alliance is a partnership among business partners in which they choose to work together to obtain mutual benefit (Drost, 2012). The motives of strategic alliance formation include business retention, future business formation and expansion, situation management and profit generation in the existing enterprise (Kinderis & Jucevičius, 2013). Further, as Todeva

and Knoke (2015) puts it several strategic alliance formations emerge when organizations search for new efficiencies and competitive advantages while avoiding both market uncertainties and hierarchical rigidities.

A strategic alliance involves at least two partner firms that remain legally independent after the alliance is formed, share benefits and managerial control over the performance of assigned tasks and make continuing contributions in one or more strategic areas, such as technology or products (Yoshino & Rangan, 2016). These three criteria imply that strategic alliances create interdependence between autonomous economic units, bringing new benefits to the partners in the form of intangible assets, and obligating them to make continuing contributions to their partnership. Different alliance forms represent different approaches that partner firms adopt to control their dependence on the alliance and on other partners (Todeva & Knoke, 2015).

The turbulence and competitiveness experienced in the business environment has triggered strategic alliances in recent years. This has been so since strategic alliances are seen to positively affect the growth, the performance and survival of firms (Kim, 2016). According to Barringer and Harrison (2016) as posited in the transaction cost economics, strategic alliances are established in order to reduce transaction costs. The motivation behind the formation of strategic alliances is to maximize power as explained in the resource dependence theory, to acquire resources as per the resource based view, to survive environmental conditions over time in the organizational ecology and to appear legitimate and conform to social norms as posited in the institutional theory. Other motivations include strengthening the competitive position and absorbing knowledge to increase competencies and ultimately add value as in the positioning school and the organizational learning perspective respectively (Kim, 2016).

Rugman (2009) asserted that strategic alliances are means for organizations to achieve a stronger market position, through the increase in the overall performance of organizations, a shared risk management strategy and grasping new resources and capabilities. Partnership through strategic alliances enable firms to respond quickly and flexibly towards accelerating change in technology, competition, and customer preferences (Webster, 2012). In addition, strategic alliances may also help partnering firms improve their competitive advantage, provide access to new markets, supplement critical skills and experiences, and allow sharing of risk and cost of major development project (Işoralte, 2009).

Strategic alliances seek to achieve organizational objectives better through collaboration than through competition. Strategic alliances are critical in an organization since organic growth alone is not enough to meet an organization's goals for growth. Moreover, strategic alliances increase market speed and facilitate access to global market. Increasing complexity also trigger partnerships since no single organization has all the expertise required to serve customers. More so, partnering reduces the costs associated with research and development (Išoraltė, 2014).

Soares (2017) highlights four benefits of strategic alliances. First, strategic alliances bring about ease of market entry through economies of scale and scope in marketing and distribution while overcoming the strict government regulations and reducing competition. Secondly, it leads to risk sharing in an uncertain and unstable market. Thirdly, a firm benefits from shared knowledge and expertise not only in the joint venture but also in other projects. Finally, according to Soares (2017) strategic alliances encourage synergy and increase the competitive advantage.

According to Warui (2014) strategic alliances are formed since they are considered a faster and effective means of achieving organizational goals. In this case, the individual company's goals are compatible and are transferred to the partnership. Strategic alliances also eliminate the financial instability challenges when small firms partner with large firms that have easier access to capital. There is also financial risk sharing in strategic alliances. In the event of a strategic alliance, each company does what best it can do hence adding value to customers (Kimeli, 2013).

2.4 Empirical Literature

This section provided a review of related research which was in line with the study.

2.4.1 Adoption of Strategic Alliances

Jabar, Othman and Idris (2011) carried out a research study on the Malaysian manufacturing relationship between organizations' resource availability and absorptive capacity as well as type of alliances with organizational performance. The findings indicated that alliance forming is a factor to consider in order improving capabilities and performance. This implies that firms

planning to enhance their performance should consider alliances with other firms. More companies today are forming alliances in order to improve the performance.

Ibrahim (2011) recognized an effective strategic alliance in USA between Starbucks and Kraft companies whereby the alliance clearly enabled the companies to have a better market penetration, brand recognition and profitability for both partners hence the development of competitive advantage.

Another study was conducted by Kale, Singh and Raman (2009) to determine how strategic alliances are formed and adopted. The study found that alliances are adopted based on property and activity relations as such, there are six attributes of strategic alliances which include learning, hybrid, business, production alliances, marketing alliances and innovation alliances. Each attribute materializes unique strategic goals and each requires particular management. Learning alliances are adopted in order to provide a possibility to exchange insights; their purpose is to deepen and to gain new knowledge and creativity. Such alliance is able to reveal new information of markets, acquire new competences and to install new technologies and improve management processes.

Euro-monitor International (2011) denoted that firms in Korea used strategic alliances to extend their business scope look for new sales drivers to curb saturation, along with saving time and costs. Umar (2005) explored the impact of strategic management as a tool of achieving an effective and efficient merger and acquisition at Nestle and Lever Brothers PLC. It was found that strategic management played a very important role in the success, growth and survival of the company, particularly where merger was concerned.

Button, Haynes and Stough (2014) suggested a number of possible reasons for alliance adoption which included cost savings, market penetration and retention, financial injection, circumventing institutional constraints and market stability. More specifically, they identified four advantages of alliances with specific reference to the aviation industry: Access to new markets by tapping into a partner's underutilized route rights or slots; Traffic feed into established gateways to increase load factors and to improve yield; Defense of current markets through seat capacity management of the shared operations; and Costs of economies of scale through resource pooling across operational areas or cost centers, such as sales and marketing, station and ground facilities and purchasing

2.4.2 Factors influencing success or failure of strategic alliance

A study conducted by Franco (2011) to determine the factors that affect the success of strategic alliances in Portuguese firms adopted key informant interview to carry out the investigation. The factors identified in the study included relationship between the partner, trust, commitment and clarity of objectives and strategy. The study concluded that process rather than structural factors determine the success of the strategic alliances.

Kineme (2016) also investigated the factors that determine the success of strategic alliances between mobile money service providers and commercial banks. A descriptive research design was adopted and data collected using a structured questionnaire and which was analyzed using descriptive and content analysis. The factors that were identified in the study include commitment, goals, objectives, monitoring and evaluation policies and organization culture.

Moreover, Banal-Estanol, Meloso and Seldeslachts (2012) studied success and failure of strategic alliances. The study found that the major factor that determines the success of a strategic alliance was commitment by partners. Furthermore, the study established that different factors affect the strategic alliances at different phases. In the formation phase, the alliance is affected by the choice of the form of governance. Further, the operational phase is affected by communication, coordination, trust, commitment and methods of conflict resolution. The evaluation phase was seen to be affected by the evaluation policy.

Specific to the construction industry, Hameed and Abbott (2017) while studying the factors of success or failure of strategic alliances identified these factors to comprise of trust, commitment, sharing knowledge, communication and IT capabilities and dependency. The study also established that cooperation among partners, clarity of definition of roles and responsibilities, mutual decision-making, dispute resolution, coordination and communication, and trust among partners affected the success or failure of strategic alliances in the construction industry.

2.4.3 Strategic Alliances and Value Creation

A study was conducted by Amici, Fiordelisi, Masala, Ricci and Sist (2013) to investigate value creation in banking through strategic alliances. The study was carried out in the European and US banking sector for the period between 1999- 2009. The study established that strategic

alliances destroy shareholder value. While the findings may apply in the context of banks, this may not be true for the construction industry which brings about the importance of carrying out the study in the construction industry.

Another study was conducted in Kim (2010) to assess value creation in strategic alliances portfolios in USA using event study methods. The study established that firms that were allied to focal firms which maintain high portfolio diversity and density enjoy greater abnormal returns. Similarly, Cassiano (2015) conducted a study in Brazil seeking to investigate value creation in international strategic alliances. The main aim of the study was to understand the forms of value created and at what point each value form is created. The study found that international strategic alliances create learning and financial value to firms. The study also found that these forms of value are created at operations. Although the findings in these studies are true, they may not apply to the strategic alliances in Kenya.

Kimeli (2013) conducted a study in Kenya to assess the role of strategic alliance in value creation in USAID. A case study research design was adopted and primary data collected using interview guide which was analyzed using content analysis. The study found that strategic alliances between Kenyan businesses and USAID do create value to these businesses.

Zhang (2013) conducted a study in China to determine how non-equity strategic alliances increase firm value. The study focused on 306 non-equity strategic alliances and adopted event study methodology by applying OLS model. The study found that strategic alliances in low tech companies contribute to increasing firm value than in high tech companies.

Wassmer (2010) sought to establish the effect of alliance formation on firm value creation from the perspective of alliance portfolio. The study used the event study method to analyze data obtained from global airline industry. The findings of the study were that value creation is evident where a firm enters into an alliance with a focal firm that has complementary resources but was not evident in firms that brought about competitive conflict. Saci and Aliouat (2014) examined value creation in strategic alliances in France. The study established that strategic alliances do not lead to value creation in the short term while in the long term there is value creation.

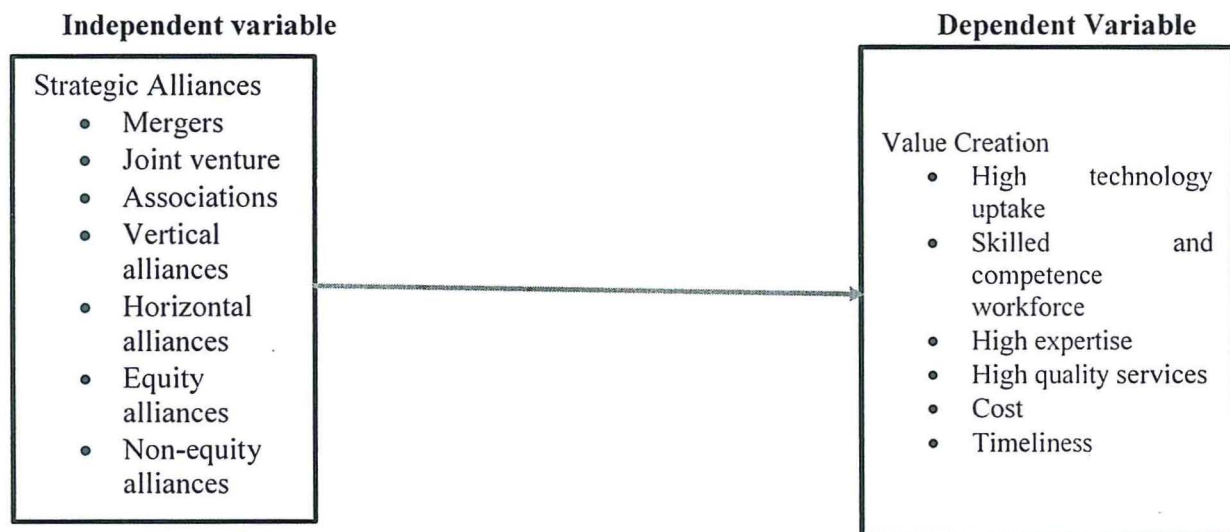
2.5 Research Gaps

As per the literature reviewed, gaps have been identified that need be addressed. While the findings Amici, Fiordelisi, Masala, Ricci and Sist (2013) may apply in the context of banks, this may not be true for the construction industry which brings about the importance of carrying out the study in the construction industry. The research method applied in the studies was event study method (Cassiano, 2015; Kim, 2010 and Wassmer, 2010). Other methods may give different findings which drive the need to apply other research designs as descriptive design which was applied in this study. Also, above studies were conducted in US which presented a geographical gap which this study intends to address by conducting the study in Kenya. The study by Kimeli (2013) utilized a case study research design and collected data using interview guide. This study intended to address this methodological gap by adopting a descriptive research design and collecting data using a questionnaire. Further, the research by Zhang (2013) was carried out in China and focused mainly on the non-equity strategic alliances. This study addressed this conceptual gap by generalizing on all types of strategic alliances. The study by Saci and Aliouat (2014) also presented a scope gap since it was carried out in France.

2.6 Conceptual Framework

A conceptual framework according to Adom, Hussein and Agyem (2018) is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied. It shows the relationship between the study variables, how the independent variables relate with the dependent variable. Figure 2.1 presents the conceptual framework for this study. The independent variable in this study was strategic alliances while the dependent variable was value creation. According to the framework, strategic alliances (vertical alliances, horizontal alliances, equity alliances and non-equity alliances) should lead to value addition in terms of knowledge value creation, product quality value creation and service quality value creation.

Figure 2.1: Conceptual Framework



Source: Author, 2019

2.7 Operationalization of Variables

Table 2.1: Operationalization of Variables

Variable	Variable Type	Measures	Type of Analysis
Value Creation	Dependent	<ul style="list-style-type: none"> • High technology uptake • Skilled and competence workforce • High expertise • High quality services • Cost • Timeliness • Quality 	Descriptive inferential statistics and content analysis
Strategic Alliances	Independent	<ul style="list-style-type: none"> • Mergers • Joint venture • Associations 	Descriptive, inferential statistics and content analysis

Source: Author, 2019

2.8 Chapter Summary

The chapter discussed the concept of strategic alliances where strategic alliance is defined as a partnership among business partners in which they choose to work together to obtain mutual. The chapter also explained the theories under which the study will be grounded. According to the resource dependence theory, firms must engage in transactions with other firms in its environment in order to acquire the needed resources. An organization competitive advantage depends on its ability to perform its activities and to link the activities. The knowledge accessing theory identifies two conceptually distinct dimensions of knowledge management. First, those activities that increase an organization's stock of knowledge and those activities that deploy existing knowledge to create value.

The chapter also reviewed some studies on strategic alliance and value creation. Most of the studies concluded that strategic alliances contribute to value creation. Finally, the operational framework and the research gaps were highlighted.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This section provided the methodology that was adopted in conducting the study. It explained the research design that was adopted. The target population, the sample size and sampling techniques and the data collection instruments were also explained in this section. The section further highlighted the methods of data analysis that were adopted in the study as well as the ethical considerations.

3.2 Research Design

A research design according to Labaree (2013) refers to the overall strategy that is adopted in order to integrate the different components of a study in a coherent and logical way so that the research problem is addressed effectively. In this study, the descriptive research design was used. A descriptive research design describes and explains the present condition of a phenomena A descriptive research is concerned with conditions, practices, structures, differences or relationships that exist, opinions held, processes that are going on or trends that are evident (Silverstein & Auerbach, 2013). Therefore, descriptive research design was adopted in this study to explain the present situation of value creation in strategic alliances in the Kenya Construction Industry.

3.3 Target Population

According to Lavrakas (2008), a target population refers to entire set of units that the study findings will be generalized. The target population for this study was all the engineering firms registered with the Engineers Board of Kenya (397) and contractors in NCA1 (411) NCA 2 (274) and NCA 3 (548). This gave a target population of 1630 as at 31st December 2018. (National Construction Authority, 2018). Firms who participated in the study are as listed in Appendix D.

3.4 Sample Size and Sampling Design

Mugo (2014) defines a sample as is a finite part of a statistical population whose properties are studied to gain information about the whole. It is the number of respondents selected to provide information to be generalized to the whole population. Sampling is a process of selecting

samples from a group or population to become the foundation for estimating and predicting the outcome of the population as well as to detect the unknown piece of information (Muhlenberg's, 2010). This study used simple random sampling to select the sample in which a lottery method was used to pick the companies. The lottery method was done by use of the Excel function RAND () to generate a random sample from a target population. Project managers, resident engineers and construction professionals in the sampled firms were the respondents.

The sample size was determined using the fisher's formula.

$$n = \frac{z^2 p(1 - p)}{d^2}$$

Where n= is the sample size,

Z is the standard normal deviate for a level of confidence (95%) for this study which give a z of 1.96.

P is the proportion to be estimated which is 0.5

d is the level of precision which is 0.05

Therefore,

$$n = \frac{1.96^2 0.5(1 - 0.5)}{0.05}$$

N= 384 for a target population of more than 10000

Since the target population in this study is less than 10000, another formula was applied to reduce the sample further

$$n_0 = n / (1 + ((n - 1) / N))$$

Where

n_0 is the adjusted sample size,

n= is the sample size when population is >10000

N is the target population

Therefore, the sample size in this study was:

$$n_0 = 384 / (1 + ((384 - 1) / 1630))$$

Sample size was 310 project manager's respondents per firm. List of sampled firms are provided in appendix C.

3.5 Data Collection Instruments

Data collection instruments are devices used to gather data (Birmingham & Wilkinson, 2013). A questionnaire was used to collect data from the respondents. The questionnaire was semi structured in which both open ended and closed questions were used. The structured questions were in form of a Likert item in which respondents indicated their level of agreement on the statements concerning the study variables. One questionnaire was distributed to each respondent. The questionnaires were administered through email correspondences for firms with working emails and others were dropped and picked later from the respondents.

3.6 Pilot Test

A pilot test involves testing the research protocols and data collection instruments in order to determine the efficiency of the data collection instrument. A pilot test was conducted in this study to determine the reliability and the validity of the questionnaire. The pilot test was conducted on 10% (31 companies) registered with Engineers Board of Kenya and National Construction Authority i.e NCA 1, 2 and 3 respectively, the respondents who participated in the pilot test were not included in the final study.

3.6.1 Reliability of the Data Collection Instrument

Reliability estimates evaluate the stability of measures, internal consistency of measurement instruments, and interrater reliability of instrument scores (Kimberlin & Winterstein, 2008). Reliability measures if the instrument measures what it is supposed to measure every time it is used. Reliability was determined through the use of Cronbach's alpha which measure the internal consistency of the questionnaire (Taber, 2018). Data collected during the pilot test was input into SPSS and Cronbach's alpha for the items in the questionnaire generated. Those items that had a Cronbach's alpha of less than 0.7 which is the threshold were to be eliminated from

the questionnaire while collecting data for the main study. Table 3.1 presents the reliability results

Table 3.1: Reliability Results

Study Variable	Cronbach's Alpha	Number of Items
Success Factors	0.969	7
Strategic Alliances	0.825	5
Project Performance	0.964	6
Value Creation	0.942	7

Source: Author (2019)

All the variables depicted a cronbach's alpha of above 0.7. This indicated that all the variables were reliable and that the research instrument was reliable and fit for further analysis.

3.6.2 Validity of Data Collection Instrument

Kimberlin and Winterstein (2008) defined validity as the extent to which the interpretations of the results of a test are warranted, which depends on the particular use the test is intended to serve. The main types of validity include; face validity, content validity, construct validity and criterion validity. Face validity measure the extent to which the measure is related to the specific construct in the eyes of non-experts. Face validity evaluates if the questionnaire is feasible, readable, has consistency of style and if it uses clear language. Content validity evaluates if the items in the instrument reflect the content and if it has included all the desirable items leaving out the undesirable ones. Construct validity tests if the ideas were translated into functioning and operating reality. Finally, criterion validity examines the extent to which a measure is related to an outcome. Validity in this study was determined through administering the questionnaire to experts in the field of strategic alliancing and value creation.

3.7 Data Analysis and Presentation

After data was collected, it was entered into SPSS and then coded. The study analyzed quantitative data through descriptive analysis which included the percentages, the mean and the standard deviation and inferential statistics which was correlation analysis. Qualitative data was analyzed through content analysis. In content analysis, the responses were categorized into themes inferences by interpreting and coding textual material and converting into

quantitative data. The information obtained from the open ended questions were categorized under themes reflecting the study variables and then quantitative data obtained from them as per the frequency of similar responses. The results obtained from the analysis were presented using tables, graphs and charts. In addition, inferential statistics, that is, correlation analysis was done to establish the relationship between the variables under study.

3.9 Ethical Considerations

Ethical issues are the moral standards that the researcher should consider in all research methods in all stages of the research design. After approval from Strathmore Business School was obtained to conduct the study, permission was obtained from management of selected construction firms. In this research, three principles of ethics were used namely beneficence, respect for human dignity as well as justice. Following the three principles, sensitivity to the participants' emotions was observed when probing questions that could psychologically harm the participants as well as protect the participants from adverse situations. The respondents likewise were educated that the data they give won't be utilized as a part of any approach to hurt the members or abused for business and individual interest, however just for scholarly purposes. Full divulgence, reasonable treatment and protection was likewise used.



CHAPTER FOUR

ANALYSIS RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis, findings and the interpretation. The sections include, the response rate, the demographic characteristics, the descriptive analysis and the content analysis.

4.2 Response Rate

The researcher administered 310 questionnaires out of which 202 were completely filled up and returned. This represented a response rate of 65%. According to Babbie (2004), a response rate of 50% is acceptable, 60% is good and 70% is very good. Therefore, a response rate of 65% was adequate to analyze and publish.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	202	65%
Unreturned	108	35%
Total	310	100%

Source: Primary Data (2019)

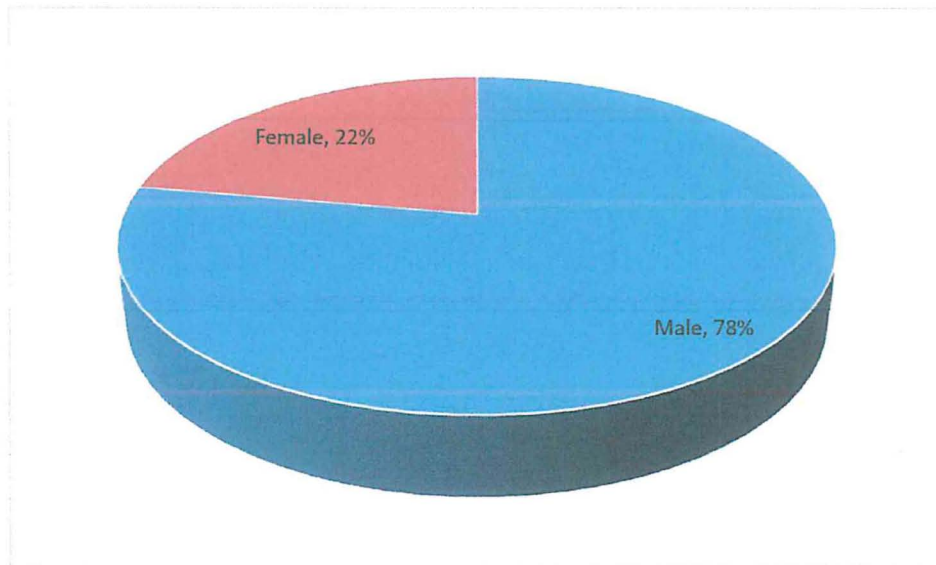
4.3 Demographic Characteristics

This section presented the results of the responses provided on the demographic information of the respondents such as gender, age and level of education.

4.3.1 Gender of the Respondents

The researcher requested the respondents to provide details about their gender. The results of the findings were presented in Figure 4.1.

Figure 4.1: Gender of Respondents



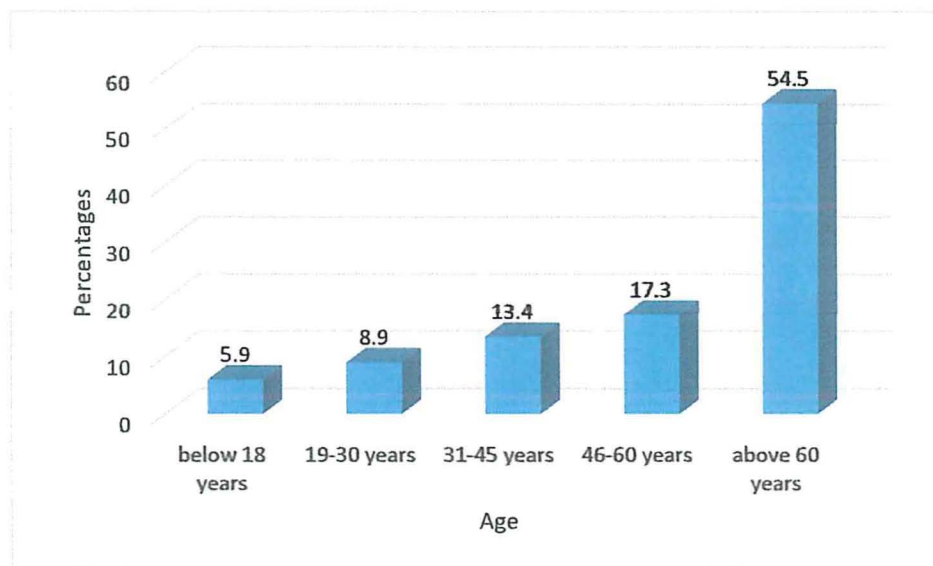
Source: Primary Data (2019)

The results in Figure 4.1 indicated that majority of the respondents were male who represented 78% while female were only 22%. This implied that majority of project managers in engineering firms in Kenya are male.

4.3.2 Age of the Respondents

The respondents were also requested to state their age bracket. The responses provided are shown in Figure 4.2.

Figure 4.2: Age of the Respondents



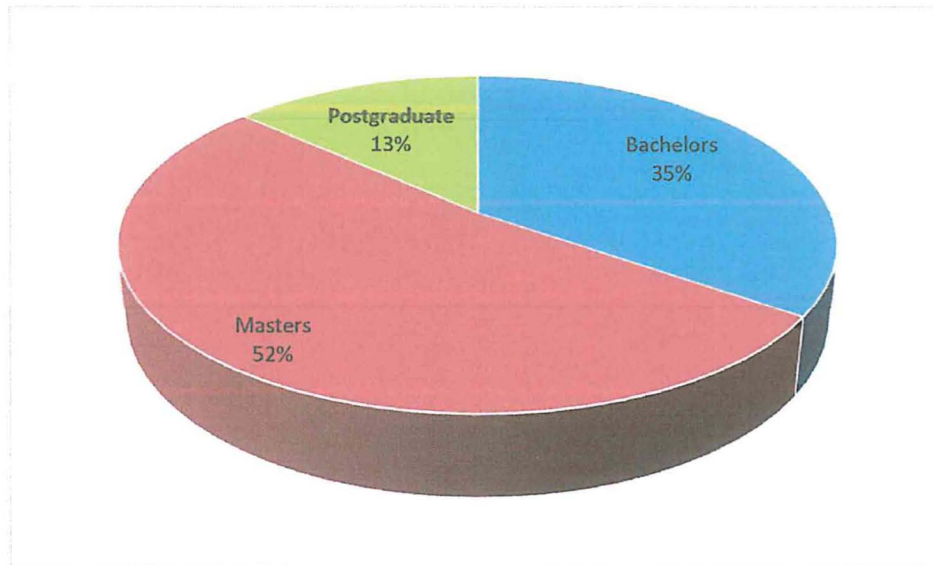
Source: Primary Data (2019)

The results in figure 4.2 indicated that most of the respondents (54.5%) were above the age of 60 years, 17.3% were aged between 46-60 years, 13.4% were aged between 31-45 years, and 8.9% were aged between 19-30 years while 5.9% were aged between 18 years. This indicated that most of the project managers in the construction projects were aged.

4.3.3 Level of Education of Respondents

The respondents were also asked to indicate their highest level of education. The responses were presented in Figure 4.3.

Figure 4.3: Highest Level of Education of Respondents



Source: Primary Data (2019)

The results indicated that most of the respondents (52%) had a master's degree as the highest level of education, 35% had bachelor's degree while 13% were postgraduates. This indicated that the project managers in the projects undertaken in the construction industry had achieved the minimum basic education for their position.

4.4 Strategic Alliances Adopted in the Kenya Construction Industry

4.4.1 Number of Alliances

The researcher sought to find out the number of alliances were adopted in the firms. The responses provided were presented in Table 4.2

Table 4.2: Number of Alliances

Number of Alliances	Frequency	Percent
None	35	17.3
one	36	17.8
two	80	39.6
More than 2	51	25.3
Total	202	100

Source: Primary Data (2019)

The results in Table 4.2 showed that most of the firms which were had formed two alliances.

4.4.2 Project Stage when the Alliances were formed

The researcher also sought to find out the stage of project when the alliances were formed. The responses provided were presented in Table 4.3.

Table 4.3: Project Stage when the Alliances were formed

Project Stage	Frequency	Percent
Tendering	146	73.3
Design	28	13.4
Construction	28	13.4

Source: Primary Data (2019)

Table 4.3 results indicated that majority of the alliances which were formed during the tendering stage.

4.4.3 Alliance Category

The researcher further sought to find out the category the alliances that were formed belonged. Results were presented in Table 4.4.

Table 4.4: Alliance Category

Alliance Category	Frequency	Percent
learning	27	13.4
hybrid, business	43	21.3
production alliances	66	32.7
marketing alliances	20	9.9
Innovation alliances	46	22.8

Source: Primary Data (2019)

The results presented in Table 4.4 showed that most of the alliances formed which were 32.7% belonged to production alliances category, 22.8% were in innovation alliances category, 21.3% were in hybrid and business category, 13.4% were in the learning category while 9.9% were in the marketing alliances category.

4.4.4 Alliances Status

Furthermore, the researcher sought to know the status of the alliances during the time of the study. The responses provided were presented in Table 4.5.

Table 4.5: Alliances Status

Alliance Status	Frequency	Percent
still continuing	143	70.8
Terminated according to plans	39	19.3
prolonged or renewed	12	5.9
prematurely terminated	8	4

Source: Primary Data (2019)

Table 4.5 results indicated that majority of the alliances which were 70.8% were still continuing, 19.3% had been terminated according to plans, 5.9% had been prolonged or renewed while 4% had been prematurely terminated.

4.5 Descriptive Statistics

4.5.1 Factors Affecting the Success or Failure of Strategic Alliances

The respondents were asked to indicate their level of agreement on statements regarding the factors affecting the success or failure rate of strategic alliances in the construction projects. For purpose of interpretation, strongly agree and agree were combined to mean agree, strongly disagree and disagree were combined to mean disagree while neutral was stand alone. Table 4.6 presented the results.

Table 4.6: Descriptive Statistics for Success/Failure Factors

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Both partners in the alliance are committed to their responsibilities	2.00%	4.00%	3.00%	38.60%	52.40%	4.61	0.488
We trust one another in managing the alliance	0.00%	0.00%	25.20%	13.40%	61.40%	4.36	0.86
There is proper coordination and effective communication among members of the alliances	0.00%	0.00%	38.60%	0.00%	61.40%	4.23	0.976
The top management put a lot of effort in the operations of the alliances	0.00%	25.20%	19.30%	13.40%	42.10%	3.72	1.247
The goals and objectives of the strategic alliances are clear	0.00%	0.00%	25.20%	13.40%	61.40%	4.36	0.86
There exists clearly stated monitoring and evaluation policies for the performance of strategic alliance which are strictly followed	0.00%	25.20%	13.40%	0.00%	61.40%	3.98	1.329
The roles and responsibilities of each member of the strategic alliances are clearly defined	0.00%	0.00%	25.20%	13.40%	61.40%	4.36	0.86
Average						4.23	0.95

Source: Primary Data (2019)

The descriptive results in Table 4.6 indicated that majority of the firms who represented 91% (38.6%+52.4%) agreed that both partners in the alliance are committed to their responsibilities. The results also showed that 74.8% of the firms who were the majority agreed that the firms trusted one another in managing the alliance. Moreover, results revealed that 61.4% of the firms and who were the greater number agreed that there was proper coordination and effective communication among members of the alliances. In addition, results indicated that a greater number of the firms (55.6%) agreed that the top management put a lot of effort in the operations of the alliances. Further, results revealed that 74.8% of the respondents and who were the majority agreed that the goals and objectives of the strategic alliances are clear. Furthermore, the results showed that most of the firms (61.4%) agreed that there exists clearly stated monitoring and evaluation policies for the performance of strategic alliance which are strictly followed. Finally, results indicated that majority of the firms (74.8%) agreed that the roles and responsibilities of each member of the strategic alliances are clearly defined. More so, a mean of 4.23 indicated that most of the respondents who were project managers agreed to the statements regarding the factors affecting the success or failure of the alliances which implied that these most of the firms had implemented positive strategies to ensure success of the strategic alliances. On the other hand, a standard deviation of 0.95 indicated that the responses were varying which implied that some of the alliances faced challenges that would hinder their success.

Further, the researcher sought to find out if the strategic alliances faced challenges in carrying out the projects under the strategic alliances. The responses provided were presented in Table 4.7.

Table 4.7: Challenges Encountered

	Frequency	Percent
Yes	151	74.8
No	51	25.2
Total	202	100

Source: Primary Data (2019)

The results in Table 4.7 showed that majority of the projects were faced with challenges while undertaking projects under strategic alliance arrangements.

4.5.2 Strategic Alliance

The respondents were asked to indicate their level of agreement on statements regarding the strategic alliances they had adopted. For purpose of interpretation, strongly agree and agree were combined to mean agree, strongly disagree and disagree were combined to mean disagree while neutral was stand alone. Table 4.8 presented the results.

Table 4.8: Descriptive Statistics Results for Strategic Alliances

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Our firm has formed mergers with other companies in order to expand our reach	15.30%	48.00%	0.00%	17.30%	19.30%	2.77	1.41
Our firm has formed joint ventures with other companies to increase our expertise	17.30%	17.30%	15.30%	15.30%	34.70%	3.33	1.52
Our firm has formed associations with other companies to source for more funds	0.00%	17.30%	32.70%	30.70%	19.30%	3.52	0.99
We together with our partner share the risks involved in production	0.00%	17.30%	32.70%	30.70%	19.30%	3.52	0.99
We are able to access resources which were not at our disposal before the alliance	0.00%	17.30%	0.00%	48.00%	34.70%	4.00	1.02
Average						3.43	1.19

Source: Primary Data (2019)

The results in Table 4.8 revealed that 63.3% of the firms and who represented the majority disagreed that they had formed mergers with other companies in order to expand our reach. The results on the other hand showed that most of the firms (50%) agreed that they had formed

joint ventures with other companies to increase our expertise. The results also revealed most of the firms (50%) agreed that they had formed associations with other companies to source for more funds. The results further indicated that 50% of the firms and which took a larger part agreed that they together with partners share the risks involved in production. Finally, results in Table 4.8 showed that 82.7% of the firms and who were the majority agreed that they are able to access resources which were not at their disposal before the alliance. Moreover, the mean of the responses given was 3.43 which implied that most of the firms agreed to the statements regarding the strategic alliances they formed. On the other hand, a standard deviation of 1.19 showed that the responses varied with some disagreeing to the statements.

In addition, the researcher sought to know if the strategic alliances achieved the purpose of their formation. The results were presented in Table 4. 9.

Table 4.9: Purpose Achievement

	Frequency	Percent
Yes	172	85.1 --
No	30	14.9
Total	202	100

Source: Primary Data (2019)

The results in Table 4.9 revealed that majority (172) of the strategic alliances and who represented the majority did achieve the purpose of their formation. On the other hand, 30(14.9%) of the alliances did not achieve their purposes.

4.5.3 Strategic alliance Content Analysis

Content analysis was done for the open ended questions. The responses given were arranged into themes reflecting the study variables for first and second objective of the study.

The respondents were asked to list the challenges they encountered while carrying out projects under the strategic alliances. The results were presented in Table 4.10.

Table 4.10: Challenges Encountered

Challenges	Frequency	Percentage
Lack of Trust	67	33
Insubordination	22	11
Communication Breakdown	24	12
Lack of commitment	67	33
Poor monitoring and evaluation	22	11
Total	202	100

Source: Primary Data (2019)

The researcher also asked the respondents to indicate how they curbed the challenge they encountered. The responses given were tabulated in Table 4.11

Table 4.11: How Challenges were addressed

How Challenges were Addressed	Frequency	Percentage
Effective channels of communication	28	14
Clearly defined line of command	28	14
monitoring and evaluation	30	15
Top management support	28	14
Commitment	87	43
Total	202	100

Source: Primary Data (2019)

The respondents were further asked to show how the success factors such as trust, commitment, top management input, coordination and communication, clarity of roles and responsibilities and goals and objectives, and monitoring and evaluation were incorporated in the alliance. Table 4.12 presents the tabulated results.

Table 4.12: Incorporation of Strategic Alliance Success Factors

Success Factors	Ways Incorporated
Trust	Constant communication on issues affecting the alliance, regular monitoring of performances, defining roles and responsibilities clearly, management meetings, better knowledge about the partner, involving only the consistent ones, stakeholder involvement
Commitment	Laying measureable yardsticks and keeping deliverable timelines, monitoring of each party obligations, agreements spelling out the roles and responsibilities of each party
Top management Input	Constant progress meetings, being involved in inventory keepings, clearly defined role of management in the alliance
Coordination and Communication	Monthly meetings, clear lines of communication such as emails and letters of correspondence, telecommunication, what's App, appointing a contact person in each alliance
Clarity of roles and responsibilities	Roles and responsibilities manual, management structure audit team, documented contract
Clarity of Goals and Objectives	Mission statement, defining the deliverables and timelines, documented contract
Monitoring and evaluation	Regular meetings for progress evaluation, quality assurance section, regular auditing, progress reports, clearly defined milestones, presentation of Design Reports at Inception, Preliminary and Final Report by the Alliance.

Source: Primary Data (2019)

4.5.4 Value Creation

In order to investigate value creation in strategic alliances, the respondents were asked to indicate their level of agreement on statements regarding how the alliances had resulted into value creation. For purpose of interpretation, strongly agree and agree were combined to mean agree, strongly disagree and disagree were combined to mean disagree while neutral was stand alone. Table 4.13 presented the results.

Table 4.13: Descriptive Statistics for Value Creation

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
Information sharing has resulted into gaining of new skills	2.00%	6.00%	0.00%	72.70%	19.30%	4.19	0.40
Strategic alliances have resulted into new opportunities	0.00%	0.00%	19.30%	61.40%	19.30%	4.00	0.62
We are able to offer quality services through the partnership	3.00%	10.00%	5.00%	39.90%	42.10%	4.42	0.50
We are able to offer quality products through the alliance	2.00%	4.00%	6.00%	68.70%	19.30%	4.19	0.40
We have been able to meet customer needs through the alliance	0.00%	0.00%	25.20%	55.40%	19.30%	3.94	0.67
We are able to easily achieve our objectives and goals	0.00%	0.00%	25.20%	55.40%	19.30%	3.94	0.67
We offer reliable products to our customers through the strategic alliance	3.00%	5.00%	24.20%	50.40%	17.30%	3.94	0.67
Average						4.09	0.56

Source: Primary Data (2019)

The results in Table 4.13 revealed that 92% of the firms and which were the majority agreed that information sharing has resulted into gaining of new skills. The results also indicated that majority (80.7%) of the firms agreed that strategic alliances have resulted into new opportunities. Moreover, the results showed that majority of the firms (82%) agreed that they are able to offer quality services through the partnership. Further, the results revealed that 88% of the firms and which represented the majority agreed that they are able to offer quality

products through the alliance. Furthermore, the results indicated that majority (74.7%) of the firms agreed that they have been able to meet customer needs through the alliance. In addition, the results showed that majority of the firms (74.7%) agreed that they are able to easily achieve their objectives and goals. Finally, the results revealed that majority (67.7%) of the firms agreed that they were able to offer reliable products to their customers through the strategic alliance. The mean of the responses was 4.09 which means that majority of the respondents were agreeing to the statements indicating that most of the strategic alliances had achieved value creation through strategic alliances. A standard deviation of 0.56 on the other hand indicated that the responses given were varying with some disagreeing with the statements which implied that some of the strategic alliances had not achieved value creation.

4.5.4.1 Project Performance

On the performance of the projects which was a measure of value creation, the respondents were asked to indicate their level of agreement on statements regarding how the projects performed. For purpose of interpretation, strongly agree and agree were combined to mean agree, strongly disagree and disagree were combined to mean disagree while neutral was stand alone. Table 4.14 presented the results.

Table 4.14: Project Performance

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
We are able to finish our projects under strategic alliances in time	0.00%	0.00%	57.90%	0.00%	42.10%	3.84	0.99
Our projects in the strategic alliances run smoothly as scheduled at the start	0.00%	0.00%	38.60%	19.30%	42.10%	4.03	0.90
We are able to complete the project in the strategic alliances within the estimated budget	5.00%	7.00%	33.90%	12.00%	42.10%	3.84	0.99
We are able to eliminate the unnecessary costs that arise in the course of the project operation for projects in the strategic alliances	0.00%	0.00%	38.60%	19.30%	42.10%	4.03	0.90
The services we offer conform to established requirements for quality services in the construction industry	0.00%	0.00%	25.20%	13.40%	61.40%	4.36	0.86
Our customers are satisfied with the quality of services we offer for projects in the strategic alliances	4.00%	7.00%	0.00%	38.60%	50.40%	4.61	0.49
Average						4.12	0.85

Source: Primary Data (2019)

The results in Table 4.14 showed that most of the respondents (57.9%) were neutral on the statements that they are able to finish their projects under strategic alliances in time which indicated that they were not sure. On the other hand, majority respondents (61.4%) agreed that their projects under strategic alliances ran smoothly as scheduled at the start. The results also indicated that most of the respondents (54.1%) agreed that they are able to complete the project that were undertaken under strategic alliances within the estimated budget. The results also revealed that 74.8% of the respondents and who were the majority agreed that the services they offer for projects under strategic alliances conform to established requirements for quality services in the construction industry. Finally, results indicated that 89% of the respondents who were the majority agreed that their customers are satisfied with the quality of services they offer for projects under the strategic alliances. Additionally, an overall mean of 4.12 implied that majority of the respondents were agreeing to the statements regarding project performance which indicated that most of the projects had performed as planned. On the other hand, a standard deviation of 0.85 indicated that the responses were varying which implied that some of the projects had not performed as expected.

The researcher also sought to know if the strategic alliances achieved better cost management. The results were presented in Table 4.15.

Table 4.15: Cost Management Success

	Frequency	Percent
Yes	151	74.8
No	51	25.2
Total	202	100

Source: Primary Data (2019)

The results in Table 4.15 showed that most alliances formed were successful in achieving better management of costs.

Further, the researcher asked the respondents to indicate whether the strategic alliances did achieve success in terms of value creation in their projects. The responses provided were tabulated in Table 4.16

Table 4.16: Value Creation Success

	Frequency	Percent
Yes	183	90.6
No	19	9.4
Total	202	100

Source: Primary Data (2019)

The results in Table 4.16 indicated that majority of the projects conducted in the construction industry had achieved value creation through strategic alliances.

4.6 Value Creation Content Analysis

Respondents were also asked to show their overall satisfaction in the performance of the project under strategic alliances in terms of timelines in service delivery. Most of the respondents said that they were partially satisfied with the project performance but challenges were encountered.

They were also asked to show how they managed cost in the strategic alliances. The responses provided included, rewarding better resource managements and increased level of production, payment on the basis of agreed schedule and allocating resources in bits

The respondents were further asked to indicate how project performance under strategic alliances is compared to those projects not under strategic alliances. The responses provided were tabulated in Table 4.17

Table 4.17: Project Performance

Project Performance	Projects under strategic alliances
Timeliness	Timelines are difficult to manage, Better timely delivery of services due to combined effort
Cost	Cost is managed when each party gives its best, Sharing of cost overheads
Quality	Quality is highly achieved through synergy and quality assurance, Quality is higher due to special skills of each partner

Source: Primary Data (2019)

The benefits acquired in strategic alliances as provided by the respondents were tabulated in Table 4.18.

Table 4.18: Benefits of Strategic Alliances

Value Creation	Benefit
Technology Uptake	Exposure to technically advanced technology, acquiring faster ways of service delivery
Skills and Competence	New and improved skills
Expertise	Improved ways of handling issues, new experiences which enhanced eligibility
Quality of services	Improved systems and methods for quality assurance, increased customer satisfaction, better reputation

Source: Primary Data (2019)

4.7 Correlation Analysis

Correlation results were presented in Table 4.19.

Table 4.19: Correlation Analysis Results

		Success Factors	Strategic Alliances	Project Performance	Value Creation
Success Factors	Pearson Correlation Sig. (2-tailed)				
Strategic Alliances	Pearson Correlation Sig. (2-tailed)	0.031 0.658			
Project Performance	Pearson Correlation Sig. (2-tailed)	.916** 0.000	0.033 0.643		
Value Creation	Pearson Correlation Sig. (2-tailed)	0.702** 0.000	0.918** 0.000	0.777** 0.000	

Source: Primary Data (2019).

Correlation results showed that success factors had a strong positive and significant correlation with value creation ($r=0.702$, $p=0.000$). This implies that an increase in success factors would lead to an increase in value creation. Trust commitment and top management input, monitoring and evaluation have a significant influence on ability of a firm to offer quality services, meet customer needs as well as organizational objectives. This finding supports that of Kinyenje

(2016) who found that success factors include commitment, goals, objectives, monitoring and evaluation policies and organization culture.

The results also indicated that strategic alliances and value creation were positively and significantly related ($r=0.918$, $p=0.000$) with a strong correlation coefficient. Similarly, an increase in strategic alliances would lead to an increase in value creation. Mergers, joint ventures and associations have a significant influence on firm's ability to offer quality goods and services, meet customer needs and also gaining of new skills. This finding agrees with that of Cassiano (2015) who found that international strategic alliances create learning and financial value to firms.

Further, results revealed that project performance and value creation were positively and significantly related ($r=0.777$, $p=0.000$) with a strong correlation coefficient. This implies that improved performance is a prerequisite of value creation. The timeliness, cost and quality of services significantly influences firm's ability to meet customer needs as well as firm objectives. Jabar, Othman and Idris (2011) found alliance forming is a factor to consider in order improving capabilities and performance.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter presents the discussion of the results obtained, the conclusion as well as recommendations.

5.2 Discussion

This sub topic presents a discussion on the research findings guided by the three study objectives and within the context of the boarder literature for similar studies. It summarizes how the objectives of the study have been achieved.

5.3 Findings in Relation to the Objectives

The primary purpose of this study was to determine the value creation in strategic alliances in the context of construction industry in Kenya. The first objective of the identify strategic alliances adopted in the construction industry. The second objective sought to determine the factors affecting the success or failure of strategic alliances. The third objective sought to establish the extent to which strategic alliances affect value creation in the Kenyan Construction Industry.

5.3.1 Strategic Alliances Adopted in the Kenya Construction Industry

The study sought to identify the kinds of strategic alliances that had been adopted in the Kenya Construction Authority. The respondents were asked to indicate the respond to statements regarding the extent to which they had adopted the different alliances identified during literature review. From the response provided it was evident that most of the projects in the Kenya Construction Industry had adopted different kinds of strategic alliances. These included mergers, associations and joint ventures. The purpose of formation of strategic alliances by these firms was found to be in order to reach a better target, to get more funds and to increase their expertise in undertaking the projects

Further, correlation analysis strategic alliances were positively and significantly related with value creation. This implied that the adoption of strategic alliances for projects under the Kenya

Construction Industry positively affects value creation. This is in line with Kimeli (2013) who found that strategic alliances in Kenyan businesses do create value to these businesses. The findings also agreed with those of Cassiano (2015) who found that strategic alliances create learning and financial value to firms. Further, Wassmer (2010) found that firm that enters into an alliance with a focal firm that has complementary resources created value. The findings on the other hand were inconsistent with those of Amici, Fiordelisi, Masala, Ricci and Sist (2013) who established that strategic alliances destroy shareholder value.

Strategic alliances have positive impact on many partner's operations as noted by Yoshino and Rangan (2015) who concur that alliances can create indirect costs by blocking the possibility of corporation thus denying the firm variety of options. Alliances can also expose the firms unique capabilities to partners who could easily copy and become business rivals. According to findings by Das and Tang (2017) Strategic alliances are designed to reduce the degree of risk faced by individual firm especially in research and development alliances, marketing & production alliances. Das et al. (2017) also found that alliances can allow firms to share the total cost and risk(s).

5.3.2 Factors Affecting the Success or Failure of Strategic Alliances in the Kenya Construction Industry

The study's second objective was to identify the factors that affect the success or failure of strategic alliances in the Kenya Construction Industry. According to the responses provided, most of the projects did consider the success factors which were identified as trust, commitment, top management input, coordination and communication, clarity of objectives and goals, monitoring and evaluation policies and defined roles and responsibilities of each party involved in the alliances. These factors were seen to be common for majority of the firms implying that they are very vital in running any strategic alliance. On the other hand, a standard deviation of 0.95 indicated that the responses were varying which implied that some of the alliances faced challenges that would hinder their success. The challenges identified included, lack of trust among partners, insubordination, and communication breakdown, lack of commitment and poor monitoring and evaluation. The challenges were addressed by adopting effective channels of communication, having a clearly defined line of command, monitoring and evaluation of each party's progress through regular reporting, top management support and commitment. It was therefore evident that alliances that did not consider such factors before

commencing on the projects were able to address most of the challenges encountered in the course of running the projects.

The correlation results revealed that success factors had a positive and significant relationship with value creation. This implied that when a firm adopted measures to implement the success factors, this would result in value creation. The findings were consistent with those of Banal-Estanol, Meloso and Seldeslachts (2012); Franco (2011) and Kinyenje (2016) who identified the factors as relationship between the partner, trust, commitment and clarity of objectives and strategy, goals, monitoring and evaluation policies and organization culture, communication and coordination. Moreover, results concurred with those of Hameed and Abbott (2017) who established the success factors for strategic alliances in the construction industry to comprise of trust, commitment, communication, cooperation among partners and clarity of definition of roles and responsibilities.\

Furthermore, Banal-Estanol, Meloso and Seldeslachts (2012) found that The study found that the major factor that determines the success of a strategic alliance was commitment by partners. Furthermore, the study established that different factors affect the strategic alliances at different phases. In the formation phase, the alliance is affected by the choice of the form of governance. Further, the operational phase is affected by communication, coordination, trust, commitment and methods of conflict resolution

Specific to the construction industry, Hameed and Abbott (2017) established that cooperation among partners, clarity of definition of roles and responsibilities, mutual decision-making, dispute resolution, coordination and communication, and trust among partners affected the success or failure of strategic alliances in the construction industry.

5.3.3 Value Creation in Strategic Alliances in the Kenya Construction industry

The third objective was to determine if strategic alliances lead to value creation in the Kenya Construction Industry. The study found that the responses on statements regarding project performance had an overall mean of 4.12 which implied that majority of the respondents were agreeing to the statements regarding project performance and which indicated that most of the projects had performed as planned. On the other hand, a standard deviation of 0.85 indicated that the responses were varying which implied that some of the projects had not performed as expected. The descriptive statistics results on value creation also revealed that mean of the

responses was 4.09 which means that majority of the respondents were agreeing to the statements indicating that most of the strategic alliances had achieved value creation through strategic alliances. A standard deviation of 0.56 on the other hand indicated that the responses given were varying with some disagreeing with the statements which implied that some of the strategic alliances had not achieved value creation.

The study found that projects under strategic alliances did perform well which was an indication of value creation. This was because most firms reported having been able to run the projects at the projected costs, being timely, meeting the quality requirements and satisfying their customers. Therefore, it was evident that projects undertaken under strategic alliances improved their performance. Further, findings revealed that the value creation benefits of strategic alliances included technology uptake that is exposure to technically advanced technology and acquiring faster ways of service delivery, skills and competence such as acquiring new and improved skills, expertise which comes about through improved ways of handling issues and new experiences which enhanced eligibility and quality services such as improved systems and methods for quality assurance, increased customer satisfaction and better reputation.

These findings concurred with those of Wheelen and Hungar (2016) who established that firms form strategic alliances to obtain technology. Grant and Baden-Fuller (2014) stated that strategic alliances is a form of knowledge sharing in which each partner has access to the other partner's knowledge and skills. Further, Soares (2017) established that a firm benefit from strategic alliance through shared knowledge and expertise while Işoralte (2009) found that strategic alliances create value through by supplementing critical skills and experiences.

5.4 Conclusion

This sub topic reflects on implications for the study findings to the Construction Industry and made conclusions as indicated in the subsequent sub sections of this sub topic.

5.4.1 Strategic Alliances Adopted in the Kenya Construction Industry

Based on the study findings, the study concluded that firms in the Kenya Construction Industry have adopted different types of strategic alliances such as mergers, joint ventures and associations while undertaking their projects. The study also concluded that these alliances are

formed at different stages of project implementation from tendering, designing and construction. The strategic alliances also fall under different categories ranging from learning, hybrid, business, production alliances, marketing alliances and innovation alliances.

The study further concluded that majority of the construction firms have formed strategic alliances in order to expand their outreach and increase their expertise. In addition, it was concluded that firms form strategic alliance as a way of raising ore funds. The study also concluded that a strategic alliance helps in risk sharing among the partnering firms.

5.4.2 Factors Affecting the Success or Failure of Strategic Alliances in the Kenya Construction Industry

Based on the study findings, the study concluded that different factors affect the success or failure of strategic alliances. These factors include trust, commitment, top management input, coordination and communication, clarity of objectives and goals, monitoring and evaluation policies and defined roles and responsibilities of each party involved in the alliances. The study further found that lack of proper implementation of these challenges translates into challenges in implementing the strategic alliances which make some alliances to be terminated prematurely. Moreover, the study concluded that to address these challenges firms need to adopt effective channels of communication, have a clearly defined line of command, adopt monitoring and evaluation of each party's progress through regular reporting, and top management support and commitment of parties involved.

The study concluded that top management's as well as employee's commitment also influence the success or failure of strategic alliances. It was also concluded that the nature of coordination and effective communication among members of the alliances also determines the success of the alliance. The study also concluded that clarity of goals and objectives also determines the success of strategic alliance. In addition, it was concluded that well defined monitoring and evaluation policies are a determinant of strategic alliance success.

5.4.3 Value Creation in Strategic Alliances in the Kenya Construction Industry

The study concluded that strategic alliances lead to value creation in the Kenya Construction Industry. Firms that implement the factors of trust, commitment, monitoring and evaluation, top management input, defining the roles and responsibilities of each party and the goals and objectives of the alliance reduces the challenges and lead to improved performance of projects

in the strategic alliance. Further, the study concluded that forming strategic alliances for projects in the construction industry bring about benefits such as technology uptake that is exposure to technically advanced technology and acquiring faster ways of service delivery, skills and competence such as acquiring new and improved skills, expertise which comes about through improved ways of handling issues and new experiences which enhanced eligibility and quality services such as improved systems and methods for quality assurance, increased customer satisfaction and better reputation.

The study also concluded that strategic alliances results to gaining of new skills and results into new opportunities. The study further concluded that a strategic alliance enhances production of quality products through sharing of technology. Based on the findings, the study also concluded that firms are able to meet customer needs through strategic alliance.

5.5 Recommendations

From the conclusions of the study and review of literature a number of recommendations can be made. Since adoption of strategic in the construction was found to prevalent amongst the respondents of the study and also key factor of project performance. The Regulators in the Kenyan Construction Industry should seek ways to encourage their adoption by firms undertaking projects. These should be based on strong frame work or criteria of engagement of alliance parties. This will lead to increased adoption of strategic alliances in Construction industry in Kenya.

Clients or investors in the construction in Kenya should acknowledge that alliances adopted to implement projects undergo challenges or differences amongst the alliance parties that impact the project implementation negatively. These difference may include mistrust, lack of effective communication, luck of commitment as indicated in the study findings. Therefore, there a need to effective communication among the partners, mutual trust, and high level of commitment amongst the alliance parties in order to realize value creation in the strategic alliance. Thus the study recommended that all organizations that intend to enter into a strategic alliance relationship put in place mechanisms that will ensure that they adhere to them otherwise the partnership will not be successful.

Value creation in strategic alliances would be realized in the construction industry when the firms or parties involved have formulated clear objectives and goals of the alliances, clarity the

roles and responsibilities of each party, monitoring and evaluation mechanism, effective channels of communication to counter the challenges and proper alliance management structure.

The respondents in the study indicate although the projects undertaken in strategic alliances had better performance illustrating value creation in the industry there exists underlying regulatory challenges in case of disputes resolution. Therefore, the study recommends that the Policy makers or developers to consider appropriate and different approaches or guidelines that enhance inclusion of adequate dispute mechanisms of strategic alliance disputes. For instance, exposure to workshops or benchmarking in other countries in order to understand how alliance in construction industry undertake projects effectively. These could also include training in strategic management for construction industry.

The study further recommends that firms should always strive to ensure that they increase their resources and competence level in order to attract parties who would wish to enter into strategic alliances in the Kenyan Construction Industry while at the same time ensuring that their financial leverage is kept as low as possible. These actions are expected to develop expertise and competencies of teamwork leading to smooth adoption of strategic alliances and value creation in the industry.

5.6 Limitations of the study

Owing to the nature of the working conditions in the organization, it was not possible to interview managers who had tight schedules of work and on official duties. There were project managers who had been in the organization during major strategy implementation phases who had since left and their experience could not be incorporated in the study. In addition, some managers refused to participate in the study as they felt that the information they were to provide to the research was very sensitive.

The study also faced challenges of time resources limiting the study from collecting information for the study particularly where the respondent delay in filling the questionnaire and travelling to collect the filled questionnaire.

5.7 Suggestions for Further Studies

Since this study was conducted for projects under the construction industry, future studies could translate the study to other sectors such as the agricultural sector, health sector to compare the findings. Other studies could also be conducted in the developed countries since the current study was conducted in Kenya which is a developing country.

Further studies need to be done on areas to determine effects of growth of strategic alliance in construction industry.

Further, this study illustrated strategic alliance as a key variable for the value creation in the Kenya Construction industry, further studies maybe preformed to identify and include other factors that influence the value creation in the Industry.

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APPENDICES

Appendix A: Introduction Letter



Strathmore Business School

Tuesday, 02 April 2019.

To whom it may concern,

Dear Sir/ Madam.

RE: FACILITATION OF RESEARCH – CHRISTOPHER MUTUNGA NZIOKA.

This is to introduce Christopher Mutunga Nzioka who is an MBA student at Strathmore Business School, admission number MBA/87550/15. As part of our MBA Program, Christopher is expected to do applied research and to undertake a project. This is in partial fulfilment of the requirements of the MBA course. To this effect, he would like to request for appropriate data from your organization.

Christopher is undertaking a research paper on 'Value Creation in Strategic Alliance: Case Study of The Kenya Construction Industry'. The information obtained from your organization shall be treated confidentially and shall be used for academic purposes only.

Our MBA seeks to establish links with industry, and one of these ways is by directing our research to areas that would be of direct use to industry. We would be glad to share the findings with you after the research, and we trust that you will find them of great interest and of practical value to your organization.

We appreciate your support and we shall be willing to provide any further information if required.

Yours sincerely,

A handwritten signature in dark ink, appearing to read 'Caroline Tiara', is written above the typed name.

Caroline Tiara,
Manager – MBA Programs.

Appendix B: Questionnaire

Dear Participants,

I am student of Strathmore Business School conducting a research on **value creation in strategic alliance: case study of the Kenya construction industry**. Kindly fill up this information and return. Any information obtained for this purpose will be kept strictly confidential and will only be used for academic purpose. Your cooperation will be highly appreciated in this regard. Thank You!

Yours truly:

Eng. Christopher Mutunga Nzioka

This questionnaire is intended to collect data to undertake research on the **value creation in strategic alliance: case study of the Kenya construction industry**. The results of this study will be used purely for academic purposes. You will remain anonymous throughout the entire questionnaire so please volunteer as much information relevant to this study as possible.

Please give answers in the spaces provided and tick (✓) the box that matches your response to the questions where applicable.

Section A: Social demographic information

1. Gender

Male Female

2. Age

Below 18years 19-30 years 31- 45yrs 46-60 years above 60 years

3. What is your highest level of education?

Bachelors Masters Post graduate

Section B: Strategic Alliances Adopted in the Kenya Construction Industry

1. How many alliances is your company engaged in?

None

One

Two

More than Two

Other Please specify _____

2. Which stage of project was the strategic alliance formed? Please indicate for each of the alliances formed

1	i. Tendering ii. Design iii. Construction
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	iv. Others(specify)
2	i. Tendering ii. Design iii. Construction iv. Others(specify)
3	i. Tendering ii. Design iii. Construction iv. Others(specify)
4	i. Tendering ii. Design iii. Construction iv. Others(specify)
5	i. Tendering ii. Design iii. Construction iv. Others (specify)

3. For which time periods was the strategic alliance designed envisaged?

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4. In what category does the strategic alliance you are in belong? Please indicate for each of the alliances formed

1	a) Learning () b) Hybrid, business () c) Production alliances () d) Marketing alliances ()
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	e) Innovation alliances ()
2	a) Learning () b) Hybrid, business () c) Production alliances () d) Marketing alliances () e) Innovation alliances ()
3	a) Learning () b) Hybrid, business () c) Production alliances () d) Marketing alliances () e) Innovation alliances ()
4	a) Learning () b) Hybrid, business () c) Production alliances () d) Marketing alliances () e) Innovation alliances ()
5	a) Learning () b) Hybrid, business () c) Production alliances () d) Marketing alliances () e) Innovation alliances ()

5. Which status is the alliance currently in? Please indicate for each of the alliances formed

1	a) Still continuing b) Terminated according to plans c) Prolonged or renewed d) Prematurely terminated
2	a) Still continuing b) Terminated according to plans c) Prolonged or renewed d) Prematurely terminated
3	a) Still continuing

	<ul style="list-style-type: none"> b) Terminated according to plans c) Prolonged or renewed d) Prematurely terminated
4	<ul style="list-style-type: none"> a) Still continuing b) Terminated according to plans c) Prolonged or renewed d) Prematurely terminated
5	<ul style="list-style-type: none"> a) Still continuing b) Terminated according to plans c) Prolonged or renewed d) Prematurely terminated

Section C: Factors Affecting the Success or Failure of Strategic Alliances

Use the Likert item below to indicate your level of agreement on the statements regarding Factors Affecting the Success or Failure of Strategic Alliances.

1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5 = Strongly agree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Both partners in the alliance are committed to their responsibilities					
We trust one another in managing the alliance					
There is proper coordination and effective communication among members of the alliances					
The top management put a lot of effort in the operations of the alliances					
The goals and objectives of the strategic alliances are clear					
There exists clearly stated monitoring and evaluation policies for the performance of strategic alliance which are strictly followed					
The roles and responsibilities of each member of the strategic alliances are clearly defined					

5. Did you encounter challenges in carrying out the projects under the strategic alliance?

Yes ()

No ()

6. If yes, what are some of the challenges?

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.....

7. How did you counter the above mentioned challenges?

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.....

How has your alliance ensured that the following factors are incorporated?

i. Trust

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ii. Commitment

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iii. Top management input

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iv. Coordination and communication

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v. Clarity of roles and responsibilities

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vi. Clarity of objectives and goals

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vii. Monitoring and evaluation

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Section D: Strategic Alliance

Use the Likert item below to indicate your level of agreement on the statements regarding strategic alliance.

1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5 = Strongly agree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Our firm has formed mergers with other companies in order to expand our reach					
Our firm has formed joint ventures with other companies to increase expertise					
Our firm has formed associations with other companies to source more funds					
We together with our partner share the risks involved in production					
We are able to access resources which were not at our disposal before the alliance					

8. Did the alliance achieve the purpose of its formation?

Yes ()

No ()

Section E: Project Performance

Use the likert item below to indicate your level of agreement on the statements regarding project performance.

1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5 = Strongly agree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
We are able to finish our projects under strategic alliances in time					
Our projects in the strategic alliances run smoothly as scheduled at the start					
We are able to complete the project in the strategic alliances within the estimated budget					
We are able to eliminate the unnecessary costs that arise in the course of the project operation for projects in the strategic alliances					
The services we offer for projects in the strategic alliances conform to established requirements for quality services in the construction industry					
Our customers are satisfied with the quality of services we offer for projects in the strategic alliances					

9. What is your overall satisfaction in the project performance in terms of timeliness in delivering the services?

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10. Did formation of alliance succeed in better management of the cost of carrying out the project?

Yes ()

No ()

11. If yes, explain how cost was managed in the alliance

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.....

12. Are you satisfied with the quality of services offered by strategic alliances?

Yes ()

No ()

13. How would you compare the project performance of strategic alliances and individual firms in terms of time, cost and quality of services?

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.....

Section F: Performance of strategic alliances

Use the likert item below to indicate your level of agreement on the statements regarding value creation.

1= Strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5 = Strongly agree

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
	1	2	3	4	5
Information sharing has resulted into gaining of new skills					
Strategic alliances have resulted into new opportunities					
We are able to offer quality services through the partnership					
We are able to offer quality products through the alliance					
We have been able to meet customer needs through the alliance					
We are able to easily achieve our objectives and goals					
We offer reliable products to our customers through the strategic alliance					

14. Do you think the strategic alliances did achieve success in terms of value creation in your firm?

Yes ()

No ()

15. If yes, what are some of the benefits you acquired in forming an alliance in terms of;

i. Technology uptake

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ii. Skills and competence of workers

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iii. Expertise

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iv. Quality of services

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Appendix C: Strathmore Business School Ethics approval



18th April 2019

Nzioka, Christopher Mutunga
P.O. Box 19027-00100
Nairobi.
chriscos2001@yahoo.co.uk

Dear Christopher,

REF Protocol ID: SU-IERC0382/19

VALUE CREATION IN STRATEGIC ALLIANCE: CASE STUDY OF THE KENYA CONSTRUCTION INDUSTRY.

We acknowledge receipt of your application documents to the Strathmore University Institutional Ethics Review Committee (SU-IERC) which includes:

1. Study Protocol submitted 2nd April 2019
2. Cover letter listing all submitted documents 2nd April 2019
3. Proposal declaration Page signed by supervisors 2nd April 2019

The committee has reviewed your application, and your study "*Value Creation in Strategic Alliance: Case Study Of The Kenya Construction Industry*" has been granted **approval**.

This approval is valid for one year beginning 18th April 2019 until 17th April 2020

In case the study extends beyond one year, you are required to seek an extension of the Ethics approval prior to its expiry. You are required to submit any proposed changes to this proposal to SU-IERC for review and approval prior to implementation of any change.

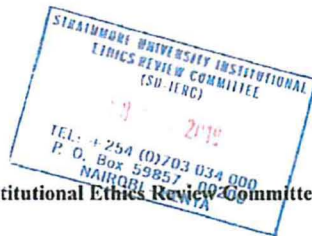
SU-IERC should be notified when your study is complete.

Thank you

Sincerely,

pp 

Prof. Florence Oloo
Secretary
Strathmore University Institutional Ethics Review Committee



Appendix D: List of Engineering and Construction Companies Listed in NCA1,2,3

Company	Category
16. A Jiwa Shamji Limited	NCA1
17. Abbey Construction Co Limited	NCA1
18. Abe-Tech E.A Limited	NCA1
19. ACHELIS MATERIAL HANDLING LTD	NCA1
20. ACME WANJI INVESTMENTS LIMITED	NCA1
21. ADCO GROUP OF COMPANIES LIMITED	NCA1
22. Afcons Africa Ltd	NCA1
23. African Borehole Initiative Limited	NCA1
24. AFRICAN SAWYERS LIMITED	NCA1
25. AFROBAU KENYA LIMITED	NCA1
26. Aggregate Construction	NCA1
27. Agro-irrigation & Pump Services Ltd	NCA1
28. Aircon Electra Services (Africa) Limited	NCA1
29. AKSHAR POWERSYSTEM LIMITED.	NCA1
30. ALFA TECH CONTRACTORS LIMITED	NCA1
31. Alfatech Contractors Ltd	NCA1
32. Aliff Construction Company Limited	NCA1
33. Al-Imran Investment Limited	NCA1
34. ALMA TANA ENTERPRISES LIMITED	NCA1
35. ALRO LOGISTIQUE LIMITED	NCA1
36. ALRONET INVESTMENTS LIMITED	NCA1
37. AMBROSIAL INTERIOR SOLUTIONS LIMITED	NCA1
38. Aminakash Co.Ltd	NCA1
39. Amiran Communication Limited	NCA1
40. AMIRAN KENYA LIMITED	NCA1
41. ANCARTA CONSTRUCTION COMPANY LIMITED	NCA1
42. ANHUI SHUIAN CONSTRUCTION COMPANY KENYA	NCA1
43. ANOCMA ENTERPRISES LTD	NCA1
44. Anthopi Mechanical Engineering Services Limited	NCA1
45. Aqua Plumbing Co. Ltd	NCA1
46. ARCON WORKS LTD	NCA1
47. Ark Construction Ltd	NCA1
48. Arm Engineering	NCA1

49. arrowtech builders limited	NCA1
50. ARTECH ENTERPRISES LTD	NCA1
51. Aspac Intl (SPRL)	NCA1
52. Associated Construction Co. K Ltd	NCA1
53. ASWA DEVELOPERS & CONTRACTORS	NCA1
54. ATLAS PLUMBERS & BUILDERS (K) LTD	NCA1
55. ATOMIC ELECTRONICS LIMITED	NCA1
56. Aua Industria Limited	NCA1
57. AVIC INTERNATIONAL HOLDING CORPORATION	NCA1
58. AVIC INTL BEIJING (E.A) COMPANY LIMITED	NCA1
59. Bajrang Construction Limited	NCA1
60. Battery World Limited	NCA1
61. BERCO COMPANY LIMITED	NCA1
62. BIOMETRIC TECHNOLOGY LIMITED	NCA1
63. BLANCMARTINI INVESTMENTS LTD	NCA1
64. Blue Valley Enterprises Limited	NCA1
65. BNT CONSTRUCTION & ENGINEERING KENYA LIMITED	NCA1
66. Boflos enterprises ltd	NCA1
67. Boleyn Magic Wall Panel Limited	NCA1
68. BOSKALIS EAST AFRICA LIMITED	NCA1
69. BOWL PLUMBERS LTD	NCA1
70. Bridgestone Construction Co. Ltd	NCA1
71. BUILD ARCTIC LIMITED	NCA1
72. Bulto Suppliers and Transporters Co. Limited	NCA1
73. Burhani Engineers Limited	NCA1
74. CANAAN DEVELOPERS LIMITED	NCA1
75. Capital Plumbing Works Ltd	NCA1
76. Catrimec Services Limited	NCA1
77. CBMI (Kenya) Construction Company Limited	NCA1
78. CCS (KENYA) LIMITED	NCA1
	NCA2
1. RAMAGAB CONSTRUCTION	
2. Abby Engineering Works Limited	NCA2
3. ABDULHAKIM AHMED BAYUSUF & SONS	NCA2
4. Abelard enterprises limited	NCA2

5. Aberdare Engineering Limited	NCA2
6. abmolinks limited	NCA2
7. Adequate Machinery Construction Co. Ltd	NCA2
8. Adidev Builders & Construction	NCA2
9. Africa Resources Limited	NCA2
10. Agile Business Technologies Limited	NCA2
11. AHQAB COMPANY LTD	NCA2
12. AJAB HARDWARE LIMITED	NCA2
13. Akshar Builders Limited	NCA2
14. ALLAN BAUHMANN CONTRACTORS LIMITED	NCA2
15. Almonds Construction Ltd	NCA2
16. ALRO LOGISTIQUE LIMITED	NCA2
17. ALRONET INVESTMENTS LIMITED	NCA2
18. ALUA SYSTEMS LIMITED	NCA2
19. Amanzi Telecommunication limited	NCA2
20. AMBER CONSTRUCTION LIMITED	NCA2
21. Amboseli Court Ltd	NCA2
22. AMEER GLOBAL LIMITED	NCA2
23. Amelco Ltd	NCA2
24. AMPERE ELECTRICAL SERVICES	NCA2
25. ANCHOR LIMITED.	NCA2
26. Anshi Builders Limited	NCA2
27. Anthopi Mechanical Engineering Services Limited	NCA2
28. Aram Investment Ltd	NCA2
29. ARCING VENTURES LTD	NCA2
30. ASAL BUILDERS LIMITED	NCA2
31. ASAL FRONTIERS LIMITED	NCA2
32. Ashbro International Limited	NCA2
33. ASPIRE KENYA LIMITED	NCA2
34. Assis Construction Company Limited	NCA2
35. ASSUP ENTERPRISES LIMITED	NCA2
36. AVEN PREMIER INTERNATIONAL LIMITED	NCA2
37. Ayoti Contractors	NCA2
38. AZTEC BUILDERS LIMITED	NCA2
39. BACKBONE CONSTRUCTION Ltd	NCA2

40. BAMI INVESTMENTS LIMITED.	NCA2
41. Baobab General Contractors Ltd	NCA2
42. BARAKI INTERNATIONAL LIMITED	NCA2
43. BARROS CONSTRUCTION COMPANY LIMITED	NCA2
44. BASELINK LTD	NCA2
45. BASHASH CONSTRUCTION COMPANY LTD	NCA2
46. BAYAN CONSTRUCTION COMPANY LTD	NCA2
47. Benisa Ltd	NCA2
48. BENLY COMPANY LIMITED	NCA2
49. BERN GROUP LIMITED	NCA2
50. BESTLAND ENTERPRISES LTD	NCA2
51. BHOGAL CONSTRUCTION LTD	NCA2
52. BILSANINVESTMENTS CO. LIMITED	NCA2
1. A.H Facades Limited	NCA3
2. Abbey Construction Co Limited	NCA3
3. Absal & Sons Enterprises Ltd	NCA3
4. ACACIA G. ENTERPRISES LTD	NCA3
5. Ace Builders	NCA3
6. ADAWA INVESTMENTS COMPANY LIMITED	NCA3
7. ADEN BROTHERS CO LIMITED	NCA3
8. Adidev Builders & Construction	NCA3
9. AEA Limited	NCA3
10. AEROPATH KENYA LIMITED	NCA3
11. AFBA CONSTRUCTION CO LIMITED	NCA3
12. AFRIMAX INVESTMENT LIMITED	NCA3
13. Afrobuild Builders Limited	NCA3
14. AKAD CONSTRUCTION CO. LIMITED	NCA3
15. ALBYWOODS AGENCIES LTD	NCA3
16. Alfa Engineers Ltd	NCA3
17. Al-Hamdu Enterprise Limited	NCA3
18. Ali Abdi Baricha Transporters Ltd	NCA3
19. Aliff Construction Company Limited	NCA3
20. ALIGALO TRADERS LTD	NCA3
21. ALIMASI ACURATE CONTRACTORS LIMITED	NCA3
22. ALKAN CONSULT LIMITED	NCA3

23. ALL SEASONS HOLDINGS LIMITED	NCA3
24. ALMAK AQUA DRILLERS LIMITED	NCA3
25. Alwex Electrical	NCA3
26. AMANTA CONSTRUCTION COMPANY LIMITED	NCA3
27. AMKON CONSTRUCTION LTD	NCA3
28. Anthopi Mechanical Engineering Services Limited	NCA3
29. Appropriate Enterprises Ltd	NCA3
30. Aquachem technologies ltd	NCA3
31. Aquascope Services Limited	NCA3
32. ARRABLAAW TRADING COMPANY LIMITED	NCA3
33. ARSENE AGENCIES LIMITED	NCA3
34. ARTESIAN (KENYA) LIMITED	NCA3
35. ASAL FRONTIERS LIMITED	NCA3
36. Ascon Construction Co Ltd	NCA3
37. Ashler Build Limited	NCA3
38. ASPIRE KENYA LIMITED	NCA3
39. Assis Construction Company Limited	NCA3
40. Astral Limited	NCA3
41. Atticon Limited	NCA3
42. AUTOBACS LIMITED	NCA3
43. Avco Agencies Limited	NCA3
44. Aventure Ltd	NCA3
45. Avion Limited	NCA3
46. AWANTECH LTD	NCA3
47. Ayoti Contractors	NCA3
48. AZAA CONSTRUCTION LIMITED.	NCA3
49. AZAL ENTERPRISES LIMITED	NCA3
50. Aztech Enterprises Ltd	NCA3
51. Babubhai Construction Ltd	NCA3
52. BACCA ENTERPRISE COMPANY LIMITED.	NCA3
53. BACKBONE CONSTRUCTION Ltd	NCA3
54. BADOLE CONSTRUCTION CO LTD	NCA3
55. Bahati Industries Ltd	NCA3
56. Baobab General Contractors Ltd	NCA3
57. BAOSIAH LIMITED	NCA3

58. BARAMERES SERVICES LIMITED	NCA3
59. Baretu General Construction Co. Ltd	NCA3
60. Barize Construction	NCA3
61. BARTUM ENTERPRISES LIMITED	NCA3
62. BASHUSH GENERAL CONTRACTORS LIMITED	NCA3
63. Baycoms Africa Limited	NCA3
64. Becan Construction Ltd	NCA3
65. BELFAST ENGINEERING WORKS LIMITED	NCA3
66. BELION HARDWARE AND BUILDING CONTRACTORS LTD	NCA3
67. BELLAGIO CONSTRUCTION LIMITED	NCA3
68. BENRIS INVESTMENTS LIMITED	NCA3
69. BHATTI ELECTRICALS LTD	NCA3
70. BIHECH LIMITED	NCA3
71. Billmoh Enterprises Limited	NCA3
72. Bizrate Enterprises limited	NCA3
73. Blackwood Ltd	NCA3
74. BLANCMARTINI INVESTMENTS LTD	NCA3
75. BLISSMAKS SERVICES LTD	NCA3
76. BLUE ARROW LIMITED	NCA3
77. Blue Valley Enterprises Limited	NCA3
78. Bodhai Investment Ltd	NCA3
79. BOSCO GENERAL CONTRACTORS LTD	NCA3
80. Brigon plumbers ltd	NCA3
81. Brixton Estates Limited	NCA3
82. Broadband Communication Networks	NCA3
83. BROWNBARK ENGINEERING SYSTEMS LTD	NCA3
84. Bura Contractors Ltd	NCA3
85. CALBEN ENTERPRISES AND ENGINEERING EA LIMITED	NCA3
86. CALOMBI INVESTMENT LIMITED	NCA3
87. Cambridge Engineering Services Ltd	NCA3
88. CANARIES HOLDINGS LIMITED	NCA3
89. Catapult Services Co. Ltd	NCA3
90. Causeway Engineering Ltd	NCA3
91. CEMEX CONSTRUCTION LIMITED..	NCA3
92. CEMTEC ENGINEERING LIMITED	NCA3

93. Central Plumbing International Limited	NCA3
94. Centric Limited	NCA3
95. Chaju Builders Limited	NCA3
96. Chakopenka Gen. Suppliers Ltd	NCA3
97. CHATICOM LIMITED	NCA3
98. Chepunyo Building Contractors Limited	NCA3
99. CHIMSE ENGINEERING AND CONTRACTORS COMPANY Y LIMITED	NCA3
100. Citrolam Contractors Ltd	NCA3
101. CIVIL TRUST ENGINEERING AND CONSTRUCTION LIMITED	NCA3
102. Classic East African (E.A) Limited	NCA3
103. Clean Air Systems Limited	NCA3
104. CLOUD CONNECT EAST AFRICA LIMITED	NCA3

Engineering Consulting Firms

Company Name	Email Adress
1. AFRICAN CONSULTING ENGINEERS	
2. AFRO GERMAN ENGINEERS & CONSULTANTS LTD	
3. Alloy Steel Castings Ltd	
4. AMICE ENGINEERING SYSTEMS	
5. Apex Systems Consulting Group Ltd	
6. ARCHGEO LAND SURVEYORS	
7. Assi Engineering Works	
8. Associated Technologies & Electricals	
9. BD Engineers Limited	
10. BS CONSULTANTS	
11. C A S CONSULTANTS	
12. CAS CONSULTANTS	
13. Cas Consultants Ltd	
14. Category	15.
16. COLLANDS VENTURES	
17. Connex Consultants Ltd	
18. Contrafrique Engineering & Building Services Ltd	
19. Cool Air Technology	
20. Costraq Consult Limited	

21. Deltatec Engineering Solutions Ltd
22. DYNOSONS BUILDERS AND GENERAL CONTRACTORS
23. Eldad Engineering & Construction Ltd
24. Electechnique Power Limited
25. Elines Automation Ltd
26. Elite Trailers
27. Emmih Company Limited
28. ENGICONSULT
29. ENGTECH
30. Enpro Africa
31. EURECA SPACE CONSULANTS
ENGINEERS
32. FERADON ASSOCIATES
33. Flexidome Engineering Services
34. Formscaff Kenya
35. Fortis Kenya Ltd
36. Gahir Engineering Works Ltd (Mechanical Engineers & Manufacturers)
37. Gathaiya Njagi & Partners
38. GE East Africa Services Ltd
39. GEDOX ASSOCIATES
40. GEF CONSTRUCTION
41. GEF CONSTRUCTION
42. GEOWAY CONSULTING ENGINEERS
43. GIBB (EASTERN AFRICA) LTD – ADDIS ABABA – NAIROBI
44. GILL CONSULT
45. Gurdev Engineering and Construction Works Ltd
46. Hamid Wali Mohamed Ltd
47. HarrisonGeorge Ltd
48. Howard Humphreys (East Africa).Ltd
49. HOWARD HUMPHREYS EAST
AFRICA LTD
50. INTERCONSULT ENGINEERS
51. Jongonga Contractors

52. Jos. Hansen & Soehne (EA) Ltd
-
53. Kaydee Construction Co Ltd
54. Kinconsult Associates Ltd
55. KIRI-CONSULTANT
56. KITHIMB ASSOCIATE
57. Lalji Meghji Patel & Co Ltd
58. Liberty Events and Contracts Scaffolding Ltd.
59. Lintex Power Systems Ltd
60. M & E CONSULTING ENGINEERS
61. M E C E CONSULTING ENGINEERS
62. MACHARA & PARTNERS CONSULTING ENGINEERS
63. MAITERI & ASSOCIATES
64. MAKI – CONSULT
65. MANGAT I B PATEL & PARTNERS
66. Mangat I B Patel & Partners
67. MASTAN CONSULTING ENGINEERS
68. MASTOW CONSULTING ENGINEERS
69. MATHIS CONSULTANTS
70. Mathis Consultants
71. MAX ENGINEERING & PLANNING SERVICES LTD
72. MAX ENGINEERING & PLANNING SERVICES LTD

Appendix E: Reliability Results: Item Total Statistics

Strategic Alliances

Statements	Cronbach's Alpha if Item Deleted
Our firm has formed mergers with other companies	0.965
Our firm has formed joint ventures with other companies	0.728
Our firm has formed associations with other companies	0.707
We together with our partner share the risks involved in production	0.707
We are able to access resources which were not at our disposal before the alliance	0.765

Strategic Alliances Success Factors

Statements	Cronbach's Alpha if Item Deleted
Both partners in the alliance are committed to their responsibilities	0.972
We trust one another in managing the alliance	0.958
There is proper coordination and effective communication among members of the alliances	0.961
The top management put a lot of effort in the operations of the alliances	0.98
The goals and objectives of the strategic alliances are clear	0.958
There exists clearly stated monitoring and evaluation policies for the performance of strategic alliance which are strictly followed	0.961
The roles and responsibilities of each member of the strategic alliances are clearly defined	0.958

Project Performance

Statements	Cronbach's Alpha if Item Deleted
We are able to finish our projects in time	0.957
Our projects run smoothly as scheduled at the start	0.945
We are able to complete the project within the estimated budget	0.957
We are able to eliminate the unnecessary costs that arise in the course of the project operation	0.945
The services we offer conform to established requirements for quality services in the construction industry	0.967
Our customers are satisfied with the quality of services we offer	0.97

Value Creation

Statements	Cronbach's Alpha if Item Deleted
Information sharing has resulted into gaining of new skills	0.932
Strategic alliances have resulted into new opportunities	0.951
We are able to offer quality services through the partnership	0.941
We are able to offer quality products through the alliance	0.932
We have been able to meet customer needs through the alliance	0.923
We are able to easily achieve our objectives and goals	0.923
We offer reliable products to our customers through the strategic alliance	0.923

Appendix F: Turn tin Report

10/06/2019

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