DYNAMIC CAPABILITIES, STRATEGIC ORIENTATION, FIRM INNOVATION AND COMPETITIVE ADVANTAGE OF COMPANIES LISTED AT NAIROBI SECURITIES EXCHANGE

PATRICIA CHEMUTAI

A DOCTORAL THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF DOCTOR OF PHILOSOPHY IN BUSINESS ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT SCIENCES, UNIVERSITY OF NAIROBI

2022

DECLARATION

I hereby declare that this thesis is my original work. No part of this research has been submitted to any university or institution for a degree. The works of other scholars cited in this study have been dully referenced.

Signed:…… …… Date:……5/12/2022……

Patricia Chemutai

D80/97283/2015

This PhD thesis has been developed under our guidance as university supervisors.

Signed:…… Date:…***5th December, 2022***…….

Dr. Kennedy Ogollah,
Senior Lecturer
Department of Business Administration
University of Nairobi

Signed:…… Date:……5th December 2022…….

Prof. Zachary Bolo Awino
Professor of Strategy
Department of Business Administration
University of Nairobi

Signed:…… …… …… Date:……5/12/2022…….

Dr. Joseph Owino,
Senior Lecturer
Department of Business Administration
University of Nairobi

DEDICATION

To grandma Grace Terer, my father Joshua Meli, mother Judith Kosilei and my siblings; Dorothy, Angela, Emmanuel and Emma.

I appreciate you all.

ACKNOWLEDGEMENT

I shall forever be grateful for the steadfast guidance by my supervisors while undertaking this study; Dr. Kennedy Ogollah, Prof. Zachary Awino and Dr. Joseph Owino. I am thankful that they committed their time and effort and gave priceless advice during this research study. I sincerely appreciate and thank the management of various listed firms at the Nairobi Securities Exchange for allowing my research assistants to access primary data from their firms. Lastly, to the Creator of the Universe for enabling me to finish this academic programme.

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ABBREVIATION AND ACRONYMS

CA	Competitive Advantage
DC	Dynamic Capabilities
DCV	Dynamic Capabilities View
DV	Dependent Variable
IV	Independent Variable
KBV	Knowledge Based View
MeV	Mediating Variable
MoV	Moderating Variable
R&D	Research and Development
SACCO	Savings and Credit Cooperative Societies
SO	Strategic Orientation
SWOT	Strengths, Weaknesses, Opportunities and Threats
TVET	Training, Vocational and Entrepreneurship Training Institutions

ABSTRACT

Dynamic capabilities and their function in attaining competitive advantage contributes greatly to debates in management discipline. Further, the effect of strategic orientation and firm innovation in the aforementioned relationship is yet to be empirically concluded since divergent conclusions have been recorded. Listed companies at the NSE contribute greatly to the economic development and yet their competitiveness has been erratic. The overall objective of the study was to determine the effect of strategic orientation and firm innovation on dynamic capabilities-competitive advantage relationship of listed NSE firms. The specific objectives, that later gave rise to null hypotheses, were to determine; the influence of dynamic capabilities and competitive advantage, effect of strategic orientation on the dynamic-capabilities relationship, effect of firm innovation on the dynamic-capabilities relationship and lastly, the joint effect of dynamic capabilities, strategic orientation and firm innovation on competitive advantage of companies listed at NSE. This study was grounded on dynamic capabilities theory and supported by contingency theory and path dependency theory. Philosophically, the study applied positivism and used descriptive cross sectional research design. Primary data was collected using a structured questionnaire with all listed firms constituting the study population. A pilot test ensured the reliability and validity of the research instrument. Computation of mean, standard deviation and coefficient of variation was done for descriptive statistics while inferential statistics showed the nature and magnitude of the relationships between the variables. Simple, path, hierarchical and multiple regressions were used to test the four hypotheses. After testing the null hypotheses, the study established that dynamic capabilities construct has a statistically significant influence on competitive advantage of companies listed at NSE. Strategic orientation was found not to be a moderator while firm innovation was partial mediator. Finally, the study revealed that dynamic capabilities, strategic orientation and firm innovation had a significant joint influence on competitive advantage. The study has implications on theory, policy and practice. It has contributed to theory development by supporting dynamic capabilities theory that the development and maintenance of dynamic capabilities result in competitive advantage. On management practice, it shows the importance of developing dynamic capabilities, adopting strategic orientation and engaging in firm innovation activities for attaining competitive advantage. Lastly on policy implications, the government should enact authoritative laws and develop sustainable policies that can protect the listed firms. The study recommended an interactive model where dynamic capabilities, strategic orientation and firm innovation can be considered across companies listed at NSE since the R square in the joint effect was the highest among the four hypotheses. The study had some limitations mainly caused by the scope as it focused only on companies listed at NSE. Some sectors are robust with many companies but few have decided to be listed at the NSE. Future research efforts should extend the scope of this study by focusing both listed and non-listed firms from various sectors in the Kenyan economy and by including important contextual variables such as organizational structure and leadership styles.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Dynamic capabilities and their function in attaining competitive advantage contributes greatly to debates in management discipline. The key objective of dynamic capabilities is to assist institutions to systematically and effectively revise their processes as well as routines so that they can weather the adverse and intensive environmental uncertainties (Karman & Savaneviciene, 2021; Schilke, 2014). Investing and systematically synchronizing externally sensed opportunities with internal capabilities while observing a given strategic orientation will exponentially enhance a firm's position in a particular sector or industry relative to its competitors. This is because all activities are guided and geared towards implementing that orientation (Pehrsson, 2016). Moreover, dynamic capabilities do not produce the end products because they only reshape resource base and competences and consequently lead to firm innovation (Tresna & Raharja, 2019). Firm innovation will in turn result in the outperformance of rivals (Duan, 2013). Bogers, Chesbrough, Heaton & Teece (2019), concluded that dynamic capabilities encourage firm innovation and thereby its competitiveness.

This study employed dynamic capabilities theory, coined by Teece (1990) to emphasize the role of dynamic capabilities by creating, transforming and redefining of resources in obtaining and sustaining competitive advantage, as the anchor theory. Other supporting theories were Contingency theory and Path dependency theory. Contingency theory was first described by Thompson (1967) to explain the apparent interrelationships amongst organizational systems and their environment. Path dependency theory, developed by Paul (1985), explains how previous investments affect the current and future position of the firm

(Schön, 2012).

Companies listed at Nairobi exchange operate in an uncertain business resulting from the vast and in-depth technological transformations, obsolescence of products, entrance of new brands, fierce competition from rivals as well as unpredictability of consumer preferences. The employment of dynamic capabilities, in this case, is essential in realizing a competitive advantage. It has also been documented that companies that were once at the top have been unable to maintain their position of competitive advantage (Nganga, 2013). However, some new companies at the market have outperformed the incumbents and consequently increased their dominance of market their industries. For these reasons, a study to establish the roles of dynamic capabilities, firm innovation and strategic orientation in the development of competitive advantage of these companies was important. This study contextually focused on listed firms at Nairobi securities exchange because of array of economic activities which are in agricultural, automobiles and accessories, media transmission, managing an account, development, protections, fabricating, speculation, vitality and petroleum (Ngugi *et. al.,* 2009).

1.1.1 Dynamic Capabilities

Dynamic capabilities can be explained as the capacity to include, develop as well as modify resources and competences that are in-house and those sourced externally in order to address environment dynamism (Teece, 2014). In this manner, firms can distinguish and contribute in rising trade openings by sanctioning the realignment of competences,

recreation of resources and by reviving their asset (Bitencourt, Santini, Ladeira, Santos & Teixeira, 2020; Duan, 2013). Teece (2007) explained on energetic capabilities as detecting, seizing and integration capabilities. Detecting capabilities allude to the company's capacity to scout its encompassing whereas distinguishing beneficial openings and likely dangers that might obstruct its objective of a competitive advantage (Li & Liu, 2014).

Teece (2012) defined seizing capability as the capacity to which a firm chooses few from many strategic alternatives and invest its resources on the opportunities identified in the environment. It requires substantial commitment of resources to produce products that are of high value to both potential and current users (Peteraf *et al.,* 2013). On the other hand, Pavlou and El Sawy (2011) recommended that coordination capability alludes to the capacity of a commerce unit to combine and synchronize data, resources and yield from distinctive person units in arrange to create organizational yield that can be advertised to last clients. It involves exploring new ways of operating and implementing the use of already acquired information (Schilke, 2014; Sivusuo, 2019; Turner *et al.*, 2013).

Cui and Jiao (2011) concluded that firms which recognize emerging industry trends through strategic stakeholder alliances can configure or align their asset reservoir quickly in order to provide solutions to the new reality. Schilke (2014) equated dynamic capabilities to an intention of a firm to create, expand or make changes to the available resources and include routines with proper layouts of activities. Research studies on dynamic capabilities have concluded that firms should modify their resource base and ensure flexibility in their processes in order to gain competitive advantage (Deya, 2016; Schilke, 2014; Teece, 2014).

1.1.2 Strategic Orientation

Strategic orientation can be delienated as principles that create behaviors which enable firms to remain profitable and viable in a long time (Pehrsson, 2016) and guide the direction managers take in responding to various external stimuli in their respective industries (Hakala & Kohtamäki, 2011). A firm that adopts a given strategic orientation which is a behavioral intention acquires a competitive advantage since all undertakings are guided and geared towards implementing that orientation (Pehrsson, 2016).

Balodi (2014) observed that strategic orientation of a firm comprises of market, entrepreneurial and learning orientations. In this way, the firm not only focuses on satisfying customer requirements but also autonomously and proactively look for better ways of gaining advantage. Further, encouraging learning within the organization with distinct learning goals ensures that the best practices of completing a task is disseminated across the organization (Tresna & Raharja, 2019)

Narver and Slater (1990) concluded that market orientation as a philosophy of the market leads to the attainment of superior competitiveness by clearly and extensively analyzing customers' needs while observing the workings and activities of competitors in a particular industry. A firm should therefore have a reliable surveillance system and implement inter-functional coordination in order to respond accordingly to competition (Akonkwa, 2009). According to Chahal and Kumari (2011), market orientation enables the firm to understand the market place and thereby employ strategies that will satisfy the customer requirements and needs for the achievement of a competitive advantage. Thus, firms should obtain

information from individual customer taking into consideration their demographics, transactions, and other preferences so that they can tailor the products and services to meet their satisfaction levels (Balodi, 2020). Assessing the workings and activities of competitors is equally important because customers compare the value that they are getting from the firm with other alternatives in the market place (Hakala & Kohtamäki, 2011).

Entrepreneurial orientation is an aspect of strategic orientation and it encompasses the functional elements of entrepreneurship in an organization (Balodi, 2020; Schindehute *et al.*, 2008; Rauch *et al*., 2009). This could be seen through the utmost propensity in taking risk; autonomousness and proactiveness in all dimensions of the business thereby creating better routines in a turbulent environment and hence competitive advantage. Entrepreneurial orientation represents a behavioral intention across the organization where decision makers recognize the need for autonomy and proactiveness in order to solve issues which accompany complexity of growing the firm (Kamboj & Rahman, 2017). Covin and Slevin (1989) observed that firms that are entrepreneurially orientated respond better in turbulent environments by adjusting their activities in order to realize a competitive advantage.

These firms also commit tremendous amounts of assets in exploiting new opportunities from the environment (Pratono, 2021). This risk-taking endeavor ensures that the firm enjoys the benefits of risk taking. On the other hand, the element of proactiveness in entrepreneurial orientation can be seen in firms exploring new opportunities before their competitors as they look forward to changing demands of consumers. Entrepreneurial

orientation can result in industry changes as the firms pursue their autonomous strategies (Rauch *et al*., 2009). Tresna and Raharja (2019) concluded that entrepreneurial orientation guides the decision-making process explains the philosophy that managers adopt in their organizations.

Learning orientation explains a firm's intention of creation, accumulation, processing and utilization of internally and externally sourced knowledge (Sinkula *et al.,* 1997). van den Berg (2013) argued that managers are responsible for individual or collective information with a continuous learning which enable the firm to continuously develop superior products that will satisfy their customers while increasing their shareholders wealth and hence sustainability. Firms with unique organizational know-how are better placed to generate and maintain high returns and consequently a competitive advantage (Jamil & a Lodhi, 2015).

Hakala and Kohtamäki (2011) observed that firms which are orientated towards learning have clear learning goals and the employees share the vision of acquiring and sharing knowledge with other employees. Input from employees in determining the strategies to be implemented by the firm is incorporated by the managers in their decision-making process. The employees are open-minded and critically examine the information derived from the external environment before recommending a course of action.

Mansouri *et al.* (2011) concluded that the cost of obtaining knowledge is greatly reduced when employees share it amongst themselves and this ensures that the best practices of

completing a task is disseminated across the organization. Hakala and Kohtamäki (2011) further observed that top managers see leaning as investment that will result in the attainment of above industry returns and hence a competitive advantage. This study focused on market orientation, entrepreneurial orientation and learning orientations.

1.1.3 Firm Innovation

Firm innovation can be described as the overall formation of products (new and improved), processes, procedures and markets that enable a firm outperform its competitors in a given industry (Osamu, 2015; Wang & Feng (2019),). It involves changing different aspects the firm so as to either address changes within and or outside the firm or to create extensive modification in the environment. Jose-Luis *et al.* (2014) found that technological and organizational innovation results in a higher product innovative performance and superior competitiveness to firms. Jansen and Cau (2012) observed that the higher the innovation activities in an organization, the greater the ability of attaining competitive advantage.

Firm innovation is mandatory for the survival of any firm. Therefore, organizations that do not introduce and improve their product lines or adopt new ways and processes will not thrive in the competitive industries (Klingebiel & Rammer, 2014). Additionally, firms should look for effective ways of incorporating the information obtained from the environment into its internal information system in order to successfully implement firm innovation. Here, firm innovation results in organization change and might require change of routines (Lichtenthaler, 2011; Sandor *et al.,* 2019).

This is also observed by Brem *et al.* (2016) when they posited that adopting new usage of

technologies while changing the way things are done in a firm result in a competitive advantage. According to Jansen and Cau, (2012), firm innovation is an action-oriented process that determines the capacity of a leader or manager to effect change in an organization. Designing appropriate structures ensures effectiveness in business processes. Ren (2016) explained the major importance of consistent innovation in ensuring continued existence and improved performance of organizations.

Dabic *et al.* (2011) emphasized the close link between organizational innovation and competitiveness of firms. The development of conditions favoring open innovation instead of management control results in greater product and process innovation across the organization (Poutanen, 2016). Tresna and Raharja (2019) posited that product innovation is an essential and critical component of firm innovation. It involves the development of products that have unique characteristics and or different uses. This can also be seen in products that have high technical specifications, myriad of components and those that have been made from effective materials.

According to Steward *et al.* (2008), product innovation also entails changing the whole product or making minor changes by accessorizing the existing product. In this case, the product becomes unique and appealing to customers. Mu *et al.* (2009) and Lin *et al.* (2013) concluded that product innovation leads to an increased market share of an organization resulting from new customer purchasing the product while enhancing loyalty of the existing customers. Process innovation is paramount for effective business operations while minimizing costs. This ensures that work is done seamlessly and the end product of a firm is obtained efficiently (Brem *et al.* 2016).

Process innovations utilize various information technologies to introduce new processes that not only improve the workflow but also ensure improved service delivery methods (Dabic *et al.*, 2011). These innovations also enable the firms manage their inventory levels so that there are no shortages and the company does not incur more storage costs. The need to identify production malfunctions and other constraints instantaneously is of utmost importance to the management. This will enable the firm address the issues and thereby deliver the product or service to the consumer without disruption of supply. Process innovation calls for a high rate of change of technological methodologies that will enhance the company's competitive advantage (Klingebiel & Rammer, 2014)

1.1.4 Competitive Advantage

Competitive advantage has been concluded as a key concept in administration when making industry comparisons. Sigalas and Pekka-Economou (2013) pointed out that numerous analysts have depicted competitive advantage in an unexpected way and no clear and authoritative depiction has been arrived at. The analysts have either depicted it as prevalent execution (Grahovac & Mill operator, 2009; Areias & Eiriz, 2013) or its determinants (Doorman, 1985; Wiggins & Ruefli, 2002). Be that as it may, Peteraf and Barney (2003) depicted competitive advantage as the capacity of a firm to realize a more prominent financial esteem radiating from the proficient operations as compared to the competitors who are not getting the same financial esteem since they are not wasteful. Firms that appreciate showcase prevalence similarly develop speedier (Kajalo & Lindblom, 2015) as they are able to grow their advertise share (Purkayastha & Sharma, 2016).

Wang, Lin and Chu (2011) measured competitive advantage in terms of product/ service differentiation and producing goods and offering services at low cost. Product differentiation entails adding more value and features to the product which will entice the customers to buy an enhanced product/service in the marketplace. This enables the firm to charge a premium and consequently obtain greater economic value than the competitors in the industry (Sigalas & Pekka-Economou, 2013). Producing goods and offering services at lower prices than the competitors can increase the number of customers and consequently the market share. Kajalo and Lindblom (2015) pointed out that low prices emanate from not only economies of scale but also efficient supply chain of goods and services which will result in market superiority in the industry. This is another important element of competitive advantage since the firm will be able to grow and obtain above-industry returns. Areias and Eiriz (2013) emphasized the importance of high product/service quality in explaining competitive advantage. They pointed out that customers value sustained high quality products/services and this can result in loyalty and consequently increase the firm's market share.

Competitive advantage is attained through a series of vast organizational decisions (Čirjevskis, 2017; McGrath, 2013). Grant (2013) observed that creation of imitation barriers is a necessary condition to sustaining an already gained competitive advantage. Comparison with tentatively similar organizations competing in the same industry is essential in determining the level of CA. A firm, therefore, has a competitive advantage if the benefits obtained are high compared to those received by the competitors (Ferreira & Coelho, 2019).

Organizations are recommended to continue improving developing business models for renewing and sustaining competitive advantage. This will also curb unattractive business

opportunities (Purkayastha & Sharma, 2016). Lin and Tsai (2016) used an improved resource-based framework to quantitatively determine the type of dynamic capabilities needed to gain CA in an uncertain environment. Competitive advantage is realized by advertising tall esteem and quality products or creating goods/services at the most reduced fetched as compared to the rivals within the industry (Areias & Eiriz, 2013).

1.1.5 Companies Listed at the Nairobi Securities Exchange

Companies listed at NSE are diverse and their activities range from agricultural, automobiles, manufacturing telecommunication, construction, investment, insurance banking energy and petroleum to real estate. The companies are extensively recognized in the country and contribute greatly to the prosperity of the economy (Ngugi *et. al.*, 2009). This implies that there is need for the listed firms to deploy dynamic capabilities and attain competitive advantage since they can invest in emerging business opportunities by enacting the realignment of competences, reconstruction of assets and rejuvenate their resource (Bitencourt, Santini, Ladeira, Santos & Teixeira, 2020; Duan, 2013). Further, the adoption of strategic orientation will create behaviors and guide the direction managers take in responding to various external stimuli for competitive advantage (Pehrsson, 2016).

The competitiveness of companies listed at the NSE is paramount to the economic development. Therefore, the listed firms need to invest in firm innovation since organizations that do not introduce and improve their product lines or adopt new ways and processes will not thrive in the competitive industries (Klingebiel & Rammer, 2014). Over a nine-year period (2010 – 2020), listed NSE firms have risen from 55 to 63. Assist, the World Bank report (2020) on improvement markers pointed out that these firms have come

to a advertise capitalization of 21.18% of GDP in 2020. Despite this growth of listed firms, companies that were once at the top have been unable to maintain their position of competitive advantage (Nganga, 2013). Conversely, some new companies at the market have outperformed the incumbents and consequently increased their dominance of market their industries.

Capital Market Authority (CMA), as the regulator has been given a responsibility to monitor and supervise firms listed on issues relating to capital adequacy, liquidity requirements, governance and other areas to ensure the financial stability (Capital Markets Authority Act, Cap 485 A). This suggests that these companies met the posting prerequisites when they were being freely cited. The NSE has recorded a huge development in monetary division within the nation and is presently positioned fourth biggest in trading volume in Africa. The Most Speculations Showcase Fragment, the Elective Venture Markets Section and the Settled Wage Securities Showcase Section are the three critical fragments in NSE (www.nse.co.ke). The most ventures advertise postings comprise of agrarian segment, commercial, mechanical and fund and venture.

The industry position of listed companies at the Nairobi Security Exchange is always being monitored closely by various stakeholders as well as the general public. Their position informs stakeholders' decision-making process in investing. Additionally, performance of various listed firms depicts the economic status of the country. Listed firms, therefore, strive to enhance investor confidence and value by embracing the realignment of internal resources and externally-sourced competences as a vehicle of creating and attaining a

competitive advantage. Previous research output has showed that there are numerous challenges that have emerged relating to the growth of the Kenyan financial market. Beside some stock exchange brokers not adhering to the stipulated corporate governance framework, corporate malpractices have resulted in firms to undergo serious financial problems warranting the Capital Markets Authority placement under receivership/statutory management (Ngugi *et. al.*, 2009).

1.2 Research Problem

Gaining and maintaining superior competitiveness in the midst of environmental uncertainty is one of the pressing goals of a firm. It is apparent that fierce competition can reduce the chances of a firm's survival. Exponential intensification of industry competition reduces economic rents and above-average returns from invested resources (Areias & Eiriz, 2013). Therefore, instituting ways of creating of a competitive advantage is paramount to beat competition. Dynamic capabilities, therefore become the initial conditions for realizing competitive advantage (Bitencourt *et al.* 2020; Teece, 2014). However, relying on dynamic capabilities alone might not be sufficient because other factors could contribute to a firm's competitive advantage (Zhou & Li, 2010). These factors could include strategic orientation (McGrath, 2013; Purkayastha & Sharma, 2016) as well as firm innovation (Eidizadeh, Ashrafi & Chitsaz, 2016).

Kenyan recorded companies are basic within the development of the economy as well as the formative advance (Ngugi et. al., 2009). The World Bank report (2020) on improvement markers pointed out that these firms have come to a showcase capitalization

of 21.18% of GDP in 2020. Subsequently, the recorded firms in Kenya ought to discover ways of picking up a competitive advantage in the midst of an questionable commerce coming about from the endless and in-depth innovative changes, out of date quality of items, entrance of unused brands, furious competition from rivals as well as capriciousness of customer inclinations. Nganga (2013) pointed out that companies that were once at the top have been unable to maintain their position of competitive advantage. However, some new companies at the market have outperformed the incumbents and consequently increased their dominance of market their industries. This points out the need to research on why this is happening and consequently determine the factors that could help the listed firms regain their competitiveness in their industries.

Whereas dynamic capabilities vary across firms in an industry, they have the potential to trigger innovativeness within the firm (Darawong, 2018). Innovation is a powerful vehicle in the attainment of competitive advantage in a given firm and in the long run (Ren, 2016). Moreover, creating a competitive advantage is a long-term investment that needs strategic orientation. Nevertheless, the ability of a firm to use dynamic capabilities in creating competitive advantage is dependent on strategic orientation. Market oriented firms, for instance, tend to invest in sensing capabilities to improve their positioning in the industry (Kachouie *et al.*, 2018). This study enhances this discussion by establishing how the three aforementioned variables influence competitive advantage.

From a conceptual point of view, dissimilar conclusions on how energetic capabilities

relate with competitive advantage have been recorded. Teece et al. (1997), in their conceptual survey of innovative firms within the US, found a coordinate interface between energetic capabilities and competitive advantage. Tseng and Lee (2014) utilizing numerous relapse, found that energetic capabilities impact competitive advantage of SMEs in Taiwan. On the other hand, Helfat et al. (2013) pointed out that energetic capabilities lead to competitive equality or drawback. Karman and Savaneviciene (2021) concluded that energetic capabilities in a roundabout way influence the firm's competitiveness since it is mediated by ambidexterity. Their think about utilized the utilize of basic condition modelling of 455 firms within the Baltic locale. Nieves, Quintana and Osorio (2016), utilizing auxiliary condition displaying to analyze information, set up that energetic capabilities influence firm development of 109 Spanish firms within the inn industry. The study, however, failed to ascertain the link between firm innovation and competitive advantage.

Wang and Feng (2019), using regression analysis, ascertained that dynamic capabilities influence firm innovation and thereafter, innovation influence the performance of 204 Chinese firms. These firms were specifically in the manufacturing industry. The study, however, did not ascertain the mediating effect of innovation in their study. This implies that there is room for further research to establish both direct and indirect relationships between variables and hence warranting this study.

Further, strategic orientation construct has been delineated greatly using market and entrepreneurial orientation. For instance, Chahal *et al.,* (2016) using structural equation modeling, established that market orientation positively impacts competitive advantage of 900 SMEs in India. Similarly, Kajalo and Lindblom (2015) employed structural equation modeling and found that market and entrepreneurial orientation indirectly impact competitive advantage of 202 Finnish small retailers. This study incorporated learning orientation as a component of strategic orientation to address this gap. On firm innovation, prior studies have emphasized product and processes dimensions; leaving out market innovation which this study has incorporated.

Jiménez and Fuentes (2013), using hierarchical regression, established that innovation, specifically process and product mediate the relationship between dynamic capabilities and performance of Spanish technology-based SMEs. Jose-Luis *et al.* (2014) found that technological and organizational innovation results in a higher product innovative performance and superior competitiveness to 150 Lebanese firms. Further, a study by Jurksiene and Pundziene (2016) recommended more studies on mediating factors in dynamic capabilities framework and hence this current study.

Several investigations into the dynamic capabilities, strategic orientation as well as innovation are rarely on public listed companies. These studies, both in Kenya and internally, concentrate on a single industry like manufacturing or service industries. For instance, an explanatory strategic orientations study by Nakola et al. (2015) on SMEs in Kenya showed that strategic orientation increases firm performance due to enhanced

efficiency in processes and customer satisfaction. Deya *et al.* (2016) established that dynamic capabilities significantly influence profitability of Kenyan TVET institutions.

Universally, Cui and Jiao (2011) in their overview of 227 Chinese fabricating firms and utilizing auxiliary condition modeling concluded that energetic capabilities are foremost in accomplishing competitive advantage. Kachouie et al. (2018) in their overview of 270 benefit and fabricating Australian firms and utilizing exploratory figure examination and concluded that energetic capabilities make competitive advantage. Thus, this ponder purposes to adjust this inadequacy of single-industry-research by conducting a study of recorded firms that have different businesses spoken to.

Local and global research studies on dynamic capabilities (Kachouie *et al.*, 2018; Mbugua, 2015), strategic orientation (Chahal *et al.,* 2016; Nakola *et al.,* 2015) firm innovation (Darawong, 2018; Eidizadeh, Ashrafi & Chitsaz, 2016) and their influence on competitive advantage have been done. Despite this fact, researchers have not been able to definitively conclude on the factors that influence competitive advantage. This could emanate from narrow studies focusing on one of the aforementioned predictor variables instead of looking at them jointly. Furthermore, those studies that have looked at these relationships have made diverging conclusions. From a contextual point of view, many studies on the variables have been predominantly done outside the Kenyan context. The few by the Kenyan researchers have not been done on the Kenyan listed firms.

Methodologically, some studies have used similar methodologies but have recorded differing findings. For instance, Tseng and Lee (2014) used multiple regression and found that DC positively influences competitive advantage of Taiwan's 120 SMEs. However,

Dias and Pereira (2017) using similar multiple regression to analyze data from 197 small and medium firms in Portugal established an indirect influence of dynamic capabilities on competitive advantage. Further, Cui and Jiao (2011) in their survey of 227 manufacturing firms and using Structural Equation Modeling the empirical investigation concluded that DC strongly impact CA. Conversely, Karman and Savaneviciene (2021), using the same structural equation modelling to analyze surveyed data from 455 firms in the Baltic region, concluded that dynamic capabilities indirectly affect the firm's competitive advantage.

Further, different researchers have used diverging research designs with different analytical procedures. Consequently, a consensus on one way of conducting research on the aforementioned study variables is yet to be reached. For instance, Mbugua (2015), using structural equation modeling, established a positive influence of dynamic capabilities on competitive advantage of 184 SACCOs in Kenya. A study by Darawong (2018) of large manufacturing firms in Thailand and using structural equation modeling concluded that radical innovation increases project effectiveness and efficiency and consequently performance of a firm. This study employs the use of cross-sectional survey design and regression analysis to test the stated hypotheses. The different methodologies that have been employed by the different researchers in conducting the study variables indicate a gap and would fuel further discussion on the appropriate design as well as ideal analytical procedures.

Additionally, most of these studies did not simultaneously check for moderation as well as mediation effects of the variables. This study aimed at addressing the foregoing conceptual,

contextual and methodological gaps. The cross-sectional survey endeavored to answer the following research question: What is the effect of strategic orientation and firm innovation on the relationship between dynamic capabilities and competitive advantage of companies listed at NSE?

1.3 Research Objectives

The overall objective of this study was to determine the effect of strategic orientation and firm innovation on the relationship between dynamic capabilities and competitive advantage of companies that are listed at NSE.

The specific objectives were to establish:

1. The Influence of Dynamic Capabilities on Competitive advantage of Companies Listed at NSE.
2. The Effect of Strategic Orientation on the relationship between Dynamic Capabilities and Competitive advantage of Companies Listed at NSE.
3. The Effect of Firm Innovation on the relationship between Dynamic Capabilities and Competitive advantage of Companies Listed at NSE.
4. The Joint Effect of Dynamic Capabilities, Strategic Orientation and Firm Innovation on Competitive advantage of Companies Listed at NSE

1.4 Value of the Study

The inquire about discoveries had the potential of including esteem to key administration hypotheses by deciding the joint impact of energetic capabilities, vital introduction and

firm development on CA of firms. It, also, given an opportunity of expanding the improvement and scope of writing both hypothetically and experimentally. Energetic capabilities center on a firm's capacity to realign its asset supply so as to defeat natural issues. Subsequently, the ponder illustrated not as it were the esteem but too the application of energetic capabilities hypothesis. This underpins the DC hypothesis that firms that are able to reconfigure their asset base pick up competitive advantage (Teece, 2012) and appreciate showcase predominance either from debilitating their competitors' positions or from the developing industry (Purkayastha & Sharma, 2016). The investigate finding advance includes to the information of Way reliance hypothesis since it appeared that firm development plays a key interceding part of DC-CA relationship (Klingebiel & Rammer, 2014).

Companies recorded at NSE are profoundly recognized and well-known organizations within the Kenyan economy. A great number of these firms are blue-chip companies and can be utilized by other organizations for benchmarking. These firms will embrace the utilize of firm advancement by empowering and contributing in inquire about and improvement. The data on natural dynamism brought consideration to the managers of their part in reconfiguring and reassembling the organization's competencies. Typically an imperative way in which the consider contributed to approach advancement and execution. The discoveries of this think about propose advantageous bits of knowledge to approach creators of companies recorded at the NSE. CMA as the arrangement holder may be able to create methodologies that will change the companies recorded and guarantee that Kenya is all inclusive competitive in conducting commerce and locks in in backing that advances financial development.

Delineating DC and establishing the joint effect of SO and FI on competitive advantage is useful in management practice. It offered new and pragmatic contributions in the improvement of financial performance, customer and employee satisfaction and sustainability. Strategic Orientation, particularly, entrepreneurial orientation showed that new cultural practices that are not only forward looking and visionary but also supportive are necessary in the attainment of competitive advantage. The study further showed that embracing innovation in all spheres of business ensures attainment of competitiveness, better performance and enhanced efficiency thereby reducing operation costs. The results of this study will help management practitioners to make long term strategies to address listed firm's constraints and thereby become competitive in their respective industries. Dynamic capabilities will rejuvenate the firms' processes and resources and eliminate inefficiencies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter includes a detailed delineation of theoretical foundation. A critical examination of empirical studies that have focused on the four variables and their relationships was equally done. Theoretical foundations guided discussions on various variable relations as to not only give a synthesis of the theory but also the assumptions that were important in coming up with conclusions.

The got to decide the different connections among the factors that were being considered was vital. These connections incorporate energetic capabilities with competitive advantage, energetic capabilities, key introduction and competitive advantage, energetic capabilities, firm advancement with competitive advantage. This empowered a comprehensive conclusion of the think about.

This chapter equally summarized empirical studies concerning the study variables and identified research gaps that the current study aimed at filling. The conceptual framework in this chapter depicted the direction of various relationships of the study variables. This consequently gave rise to the research hypotheses that were tested.

2.2 Theoretical Foundation

There are four theories that the study utilized, namely: Dynamic Capabilities theory as the anchor theory, Contingency theory, Path dependency theory as well as Schumpeter

innovation theory as the supporting theories. Theories explain various concepts of a study. The link between dynamic capabilities and competitive advantage was important for adoption as well as maturity of the theory for generalization purposes.

2.2.1 Dynamic Capabilities Theory

This theory was first described by David Teece in 1990. It was intended to address the inadequacies of Resourced Based Theory which did not provide ways in which successful organizations respond promptly to environmental changes. This theory, as the anchor theory, put emphasis on the managers to coordinate and integrate internal resources as well as new competences from the external environment (Teece & Pisano, 1994). According to this theory, a firm's competitive advantage is a product of creating, reconfiguring, modifying, and redeploying high value competences and resources which cannot be easily substituted.

Firms' efforts of combining and developing new competences, resources and capabilities are being watered-down by the competitors in the industry since they are equally enhancing their processes through sophisticated imitation techniques and reverse-engineering (Peteraf *et al*., 2013). Nevertheless, firms should continue investing in internal processes like environmental sensing, investment seizing and integration while revamping management capabilities for effective coordination of firm routines (Teece, 2018).

This study posits that firms will only be able to attain a competitive advantage by developing and deploying dynamic capabilities. This is because firms can only survive in cut-throat environment if they are strong in reconfiguring their resource base for diversification purposes (Kachouie *et al.,* 2018). Therefore, the theory can be used to

support the relationship between dynamic capabilities and competitive advantage. Moreover, the reconfigured competences will enable the firm to innovative by developing new products, new processes and exploit new markets to a competitive advantage. This shows that the theory supports the link between DC and firm innovation in realizing a competitive advantage.

The theory has, however, been criticized because of tautological explanations of organizational and managerial processes and not on how these high order capabilities can be deliberately created by firms. Secondly, the theory has not been able to clearly state whether dynamic capabilities transform the resource base singularly or when combined. Thirdly, identifying a particular dynamic capability to address a certain firm situation is unclear. This shortcoming of equating organizations to composite resources as well as competences has heightened the need to define those that can be natured, integrated and improved so as to maximize their ability to create higher value of the firm. Nevertheless, the supporting theories; contingency, path dependency and innovation theory have been used to address the theory's limitations (Foss &Ishikawa, 2007; Mathews, 2010).

2.2.2 Path Dependency Theory

Evolutionary economics and organizational change formed the basis of Path dependency literature and principles in 1980's (David, 1985; Arthur, 1989). Over the last few decades,

there has been great interest in organization theory while appreciating organizational inertia and path-dependent systems and processes (Whitley *et al.*, 1996; Rodrigues & Child, 2003; Volberda & Lewin, 2003). This theory posits that initial conditions and their historical antecedents shape eventual outcomes. It is believed that current decisions will determine the effectiveness of future decisions and the resulting outcomes due to the increasing absorptive capacity of decision makers (Schön, 2012).

Current investments of organizations can determine the plausibility of strategic alternatives and profitability of future investments and opportunities (Dobusch & Schüßler, 2013). This theory supports the relationship between dynamic capabilities and firm innovation because the study posits that firms can only undertake profitable future firm innovations if they currently invest in the development and deployment of dynamic capabilities. This is because DC do not directly produce goods or services but are valuable in initiating and boosting firm innovation which lead to a CA (Tresna & Raharja, 2019). Further, the theory complements the dynamic capabilities theory and addresses its limitation of tautological explanations by showing that organizational and managerial processes are well embedded in the routines of a firm (Acer & Polin, 2015). Path dependence aspects have been instrumental in completing organizational knowledge (Zott *et al*., 2011). Organizational characteristics often indicate how the organization operated in terms of systems.

Culture and processes during its development are additional indicators. Most organizations do not undertake vast structural re-organization since their historical operations determine their present investment standing (Gärtner & Schön, 2016). The major criticism of path dependency theory is its limitation to best identify and define the application of path dependence concept; deterministically or stochastically (Pierson, 2000; Schmidt & Spindler, 2002; Webster, 2008). Additionally, path dependence cannot be the only explanation of technological advancements and capabilities persistence in organizations.

2.2.3 Contingency Theory

This theory was coined by James Thompson in 1967 with the aim of explaining the apparent interrelationships amongst organizational systems and their environment. It has its roots in general systems theory and open systems view where the organization is seen as a composition of interdependent parts. The firm segments are characterized by adaptation to each other and environment with equifinality in realizing set objectives (Boulding, 1956). The firm in this case is a multivariate collection of subsystems and operates under different conditions. Therefore, it is assumed that no one strategy of effectively managing a firm exist (Child, 1974).

The theory assumes that the external environment cannot be influenced by organizational factors and that firm actors are rational with clear goals. Thus, a concise fit of contingent variables explains better performance and competitive advantage of firms (Dessler, 1976). This theory supports the strategic orientation variable since the appropriateness of different strategic orientations adopted by a given firm is dependent on organizational and environmental contingencies. Furthermore, the study posits that firms that invest in the development of dynamic capabilities as well as observe strategic orientation will out-perform their competitors and gain a competitive advantage. The theory's premise on organizations constantly assessing their environments before crafting appropriate strategies is important in understanding dynamic capabilities and achieving competitive advantage (Pratono, 2016).

Contingency theory has been heavily criticized for its inability to provide managerial prescriptions to address environmental uncertainties. A course of action chosen by the manager can equally fail or the returns could be lower than competitors who might not have incurred any cost in switching to the course of action. Additionally, the theory accounts for only a small variance in competitive advantage between firms and has not explained the interaction between contingent variables (Schoonnoven, 1981). Nevertheless, the shortcomings of contingency theory are address by dynamic capabilities theory since the theory depicts the key role of management capabilities in effective

coordination of firm routines as well as absorption of external competences into existing structures and systems (Teece & Pisano, 1994).

2.3 Dynamic Capabilities and Competitive Advantage

Discussions in management classes often focus extensively on an organization's energetic capabilities and the role those capabilities play in achieving competitive advantage. It has been suggested that they are indispensable to the achievement of the firm's potential for competitiveness (Bitencourt et al., 2020 Karna et al., 2015, Wilden et al., 2016). According to the findings of a few research studies, firms with more dynamic capabilities have a clear and significant advantage in terms of competition (Teece et al., 2014). On the other hand, a few analysts have arrived at the conclusion that the connection between the two structures is indirect (Peteraf et al., 2013; Ren et.al, 2016). Tseng and Lee (2014) used a variety of relapses to investigate and discover that there is a positive relationship between DC and the competitive advantage relationship of SMEs in Taiwan.

irjevskis (2017) made the observation that the capability of producing energy indirectly affects a company's level of competitive advantage in the Asian-Pacific shipping industry. In order to conduct an in-depth investigation into the adaptable capabilities of Asian-Pacific shipping companies, the study made extensive use of illustrative case studies. In a similar vein, researchers have hypothesized dynamic capabilities in a variety of environmental conditions. Some research findings have documented the effectiveness of dynamic capabilities in environments that are moderately certain or stable. This is in spite

of the fact that these capabilities are effective in extremely turbulent environments. For example, Kalali and Heidari (2016) found that an organization's energetic capabilities had a more definitive impact on their competitive advantage during times of tumultuous natural conditions than during times of relatively stable natural shifts. The investigation consisted of a comparative longitudinal case study of 14 administration counseling firms located in Iran.

In their analysis of 227 Chinese manufacturing companies, Cui and Jiao (2011) came to the conclusion that an organization's energetic capabilities unequivocally have an impact on its competitive advantage, both in steady and high turbulent conditions. This statement lends credence to the notion that firms, regardless of the external environment in which they operate, can benefit from the possession of energetic capabilities (Helfat & Peteraf, 2015). Other academics have noted that dynamic capabilities contribute to a better understanding of the process by which economic rents are generated as well as the reasons why the performance of businesses that operate in an uncertain environment varies from one another. This is primarily attributable to the rapid advancement of technology, which causes older systems to become defunct. Nevertheless, dynamic capabilities can only assist businesses in reaching competitive parity, not advantage, in the marketplace (Peteraf et al., 2013).

Karman and Savaneviciene (2021) came to the conclusion that dynamic capabilities have an indirect impact on the competitiveness of a company because ambidexterity plays a role

in the relationship. The research highlights the robust importance of sensing and integration capabilities within the model even further. Their research involved the application of structural equation modeling to the data collected from 455 businesses located in the Baltic region. Therefore, the purpose of this study was to make a contribution to the ongoing conversation about the nature of the relationship that exists between DC and CA.

2.4 Dynamic Capabilities, Strategic Orientation and Competitive Advantage

According to Teece (2012) dynamic capabilities include organizational processes which are dependent on the asset positions of organizations and directed by its historical journey, that is, prior investments of the firm and future investment opportunities. Despite the consensus of the need to create dynamic capabilities in order to address drastic environmental changes, prior empirical studies show that these processes can be influenced by extraneous factors (Helfat & Peteraf, 2015). Balodi (2020) pointed out the critical role of entrepreneurial and market orientation in obtaining superior performance amidst environmental turbulence in manufacturing and service ventures. The study was carried out on 91 young ventures (above 3 but less than 12yrs old) in UK and India. The study however did not incorporate learning orientation in its analysis. Gomes, Seman, Berndt, & Bogoni (2021), using Partial Least Squares Path Modeling, concluded that entrepreneurial and learning orientations drive organizational competitiveness of 159 Brazilian architectural firms. The study encouraged proactiveness of the top managers as well the sharing of ideas amongst employees for the realization of competitive edge. This was supported by a study done on 782 Indonesian SMEs by Pratono (2021) where entrepreneurial orientation helps the firms realize a sustained competitive advantage. The study used structural equation modelling for its analysis.

In Portugal, Dias and Pereira (2017) conducted a survey of 197 SME firms and established

that dynamic capabilities indirectly influence performance. Similarly, the cross-sectional survey of 270 selected firms by Kachouie *et al.* (2018) concluded that dynamic capabilities only help in creating market change but not directly on achieving superior performance. Zhou and Li (2010) conducted a survey of 380 of consumer product firms in China and established that strategic orientation enhances dynamic capabilities-competitive advantage relationship. The study, however, used market orientation as the only dimension in its analysis. Li and Liu (2014) observed that other studies should incorporate more mediating and moderating variables after they found an indirect impact of DC on CA.

Chahal *et al.,* (2016) using structural equation modeling, established a positive influence of strategic orientation on organization performance of 900 SMEs in India. However, entrepreneurial orientation was not analyzed in detail to show its impact on competitive advantage. Investing and systematically synchronizing externally sensed opportunities with internal capabilities while observing a given strategic orientation would exponentially enhance the ranking of a firm in a particular sector relative to the competitors (McGrath, 2013; Purkayastha & Sharma, 2016). Strategic orientation therefore strengthens dynamic capabilities-competitive advantage relationship.

2.5 Dynamic Capabilities, Firm Innovation and Competitive Advantage

Research studies have pointed out the need for investing in firm innovation as it contributes greatly to the competitive advantage of organizations (Kyläheiko, 2011). Additionally, prior studies have showed that firm innovation emanates from previous investments and

progress incrementally as the firm grows and consequently leading to competitive advantage (Cross, 2013; Goffin & Mitchell, 2010; Norman & Verganti, 2012). Similarly, dynamic capabilities encourage firm innovation by determining which new products are to be formed, which new processes need to be introduced and which new markets need to be ventured into (Bogers et al., 2019; Drnevich & Kriauciunas, 2011). Pratono (2021) conducted a study on 782 Indonesian SMEs and observed that product and market innovations enable firms to attain a competitive advantage. The study used using structural equation modelling for analyzing the data.

A study by Darawong (2018) concluded that dynamic capabilities give rise to radical innovation and consequently increased project effectiveness and efficiency of selected large manufacturing firms in Thailand. Using structural equation modeling, dynamic capabilities construct was operationalized and analyzed in terms of sensing, learning, integration and coordination capabilities. Eidizadeh, Ashrafi & Chitsaz (2016) established that organizational innovation influences competitive advantage of 213 Iranian export companies. The study employed structural equation modeling to analyze the data and concluded that export companies outperform their rivals and thrive in the global arena by innovating their products, processes and organizational systems.

Ren *et al*., (2016) in their analysis of China mobile industry concluded that there is need to build internal innovative ability that not only enhances the capacity of an organization to meet changing customer needs but also improve day to day operation efficiencies. The role of dynamic capabilities in realizing these innovations was not taken into consideration. Firm innovation is, therefore, key in explaining the processes-part of DC. The study on synergy that exists between dynamic capabilities with firm innovation and its eventual effect on competitive advantage would create a clear understanding on the dynamic capabilities' theory.

Ferreira and Coelho (2019) undertook a study on the mediating role of innovation in DC-CA relationship amongst 387 Portugal's SMEs. The study concluded that dynamic capabilities enable the SME to develop new products that will enable them to outperform their competitors. Similarly, explorative capabilities of dynamic capabilities expand the firm's relationships in new markets and hence competitive advantage.

2.6 Dynamic Capabilities, Strategic Orientation, Firm Innovation and Competitive Advantage

Firms that are able to reconfigure their resource base gain competitive advantage (Teece, (2012) and enjoy market superiority either by rendering their rivals weak or by extensively expanding their operations in the industry (Purkayastha & Sharma, 2016). Balodi, (2014) concludes that a firm can implement different orientations and utilize resources so that it can assume stronger competitive market position. Balodi (2020) pointed out the critical role of entrepreneurial and market orientation in obtaining superior performance amidst environmental turbulence in manufacturing and service ventures. The study was carried

out on 91 young ventures (above 3 but less than 12yrs old) in UK and India. However, many studies have not jointly examined the effect of strategic orientation and firm innovation on CA. A study by Kamboj and Rahman (2017) on profitable service companies in India unraveled strong direct relationship between strategic orientation and organization performance. Gomes, Seman, Berndt, & Bogoni (2021), using Partial Least Squares Path Modeling, concluded that entrepreneurial orientation as well as innovation drives organizational competitiveness of 159 Brazilian architectural firms.

Ferreira and Coelho (2019) found that entrepreneurial orientation acts as a moderator in the relationship between DC and CA. This moderation was positive and statistically significant. The study was conducted on 387 Portugal's SMEs and used structural equation modeling to ascertain the relationship. The authors concluded that entrepreneurial orientation enhances the exploration capabilities of a firm to realize a competitive advantage. The same study explored whether firm innovation is a mediator in dynamic capabilities-competitive advantage relationship. The study concluded that dynamic capabilities enable the SME to develop new products that enables them to outperform their competitors. Similarly, explorative capabilities of dynamic capabilities expand the firm's relationships in new markets and hence competitive advantage.

Tresna and Raharja (2019) concluded that product innovation does not influence competitive advantage of firms in Indonesian creative industries while entrepreneurial orientation led to a competitive advantage. The study was conducted on 585 companies in the creative industries and data analyzed using structural equation modeling. This implies that entrepreneurial orientation as a dimension of strategic orientation is important in the

attainment of a competitive advantage. Their findings of non-existing relationship between product innovation and competitive advantage are different from those of Norman and Verganti (2012) that established a positively significant relationship between product innovation and CA.

In Kenya, Mbonoka (2015) in her case study of the three mobile phone operators established a positive influence of market orientation on firm performance. Similarly, Mugo (2015) used regression analysis and established that innovation strongly influences performance of five wine companies. Mwazumbo (2016), using multiple regression, found that dynamic capabilities variable is a significant mediator between firm resources and non-financial performance but not on profitability of 56 large manufacturing firms. Mbugua (2015) using regression, established a positive influence of dynamic capabilities on performance of 184 SACCOs in Kenya.

In China, Cui and Jiao (2011) in their study of 227 fabricating firms and utilizing SEM the experimental examination concluded that DC unequivocally affect CA in steady as well as tall speed showcase conditions. Tseng and Lee (2014), utilizing different relapse, found a positive relationship on energetic capabilities-competitive advantage relationship of SMEs, particularly in benefit, innovation and fabricating businesses in Taiwan.

Utilizing SEM in analyzing information gotten from 224 organizations, Jiménez and Fuentes (2013) set up that item as well as prepare developments intercede energetic capabilities, particularly information combining capability and firm execution of

technology-based SMEs in Spain. Hence, a joint impact of energetic capabilities, key introduction with firm advancement on competitive advantage was anticipated to be critical.

2.7 Summary of Empirical Studies and Research Gaps

Creation and attainment of competitive advantage in a turbulent environmental condition remains a major focus in strategic management discipline (Li & Liu, 2014). This environment is characterized by technological advancements, short life cycle of products, changing customer preferences and short life span of technologies (Tresna & Raharja, 2019). The review of literature and empirical studies indicated gaps in explaining this important construct. A greater internalization of dynamic capabilities dimensions and how they ensure competitiveness when interacting with other organizational aspects was paramount.

Delineating dynamic capabilities and establishing the joint effect with strategic orientation and firm innovation on the development of competitive advantage warranted this study. It, therefore, depended on the organizational processes guided by the management, a firm's strategic orientations and the capacity to create new or modified valuable products or services (Ferreira & Coelho, 2019). The need to establish the moderating effect of strategic orientation and intervening effect of firm innovation on DC and CA relationship would further the understanding of organizational and managerial processes in creating value of a firm. The extensive review of literature showed gaps amongst the four variables. These gaps were described conceptually, methodologically and contextually. The knowledge gaps were equally summarized and are shown in Table 2.1.

Table 2.1: Pertinent Literature and Research Gaps

Author	Study	Methodology	Findings	Knowledge Gap(s)	Current Study
Deya (2016)	Energetic ICT capabilities, and competitive advantage of TVET educate in Western Kenyan	Descriptive Survey	Dynamic ICT capabilities significantly and positively and competitive advantage	The study concentrated narrowly on Dynamic ICT capabilities and failed in construct delineation of dynamic capabilities.	This study focuses on three measures of DC; sensing, seizing and integration capabilities so as to adequately measure the construct in relations to CA.
Nakola, J.O, Tarus B.K, & Buigut, K. (2015)	Impact of Vital Introduction on Execution of Little and Medium Undertakings: Prove from Kenya	Explanatory research; Descriptive Survey	This study showed that customer orientation adopted by SMEs influence business performance	The study concentrated on customer orientation as a component of strategic orientation. The link between other orientations and competitive advantage was not established	This study focuses on three components of strategic orientation; market, entrepreneurial as well as learning orientations
Ogunkoya, O.A, Hassan, B.A & Shobayo, P.B (2018)	Energetic capabilities and Competitive advantage within the Nigerian Keeping money Division	Explanatory research; Descriptive Survey	The study found that there is no significant relationship between dynamic capabilities and competitive advantage in the Nigerian Banking Sector	The study did not provide a detailed analysis of dynamic capabilities as it focused only on seizing capabilities. Sensing and integration capabilities were not analyzed	The study focuses on three measures of DC; sensing, seizing and integration capabilities so as to adequately measure the construct in relations to CA.

Table 2.1 Cont'd…

Chahal, H., Dangwal, R.C. Raina,S. (2016)	Affect of promoting introduction and key introduction on execution of SMEs in India	Survey; Structural Equation Modeling	The synergy between SO and MO was found to be weak. MO has both direct and indirect effect on business performance	The link dynamic capabilities and SO was not studied in establishing sustainable superior competitiveness. Firm innovation's role was equally not addressed	The current study measures the construct and includes EO to explain SO and consequently competitive advantage in the of NSE firms
Ren, R., Yu, L. & Zhu, Y. (2016)	Innovation-orientation, energetic capabilities and advancement of the casual Shanzhai firms in China	Meta-analysis	The study found out that constant innovativeness in mobile phone industry is essential in ensuring survival. DC are also important in making decisions relating to resource allocations.	The study was on only one industry; mobile phone industry. Integration aspect of dynamic capabilities was left out. The study emphasized on product innovation and not entire firm innovation	This study delineates three measures of DC sensing, seizing and integration capabilities so as to adequately measure the construct in relations to CA. Majority of the industries in Kenya will be represented from NSE listed firms
Yongzhi & Nandini (2012)	Collusion Capabilities: Survey and Investigate Plan	Conceptual study	The study indicates that there are diverse alliance outcomes since the capabilities that are required for developmental value varies in all stages of alliance formation	The study did not provide a detailed analysis of dynamic capabilities as it focused only on alliance capabilities which are embedded in organizational processes	The current study not only analyzes the influence of DC on CA but also the effect of SO and firm innovation.

Kalali & Heidari (2016)	Competitive advantage supported in administration consultancies amid alter: The part of energetic capabilities	Comparative longitudinal case analysis	Energetic capabilities have a more grounded affect on competitive advantage amid turbulent natural conditions than amid steady natural changes	The study focused only on management consultancies. It also put emphasis on integration capabilities rather than on sensing and seizing capabilities	The current study comprehensively analyzes DC, SO, innovation and competitive advantage

Table 2.1 Cont'd…

Author	Study	Methodology	Findings	Knowledge Gap	Current Study
Andrejs Čirjevskis, (2017)	Unbundling energetic capabilities in effective Asian-Pacific shipping companies	Illustrative case studies	Strategic decision making is an antecedent dynamic capabilities-sustained competitive advantage relationship	The study focused only on sensing capabilities leaving out their uses in realizing and maintaining a competitive advantage	The current study examines DC in terms of processes that enable an organization achieve and sustain competitive advantage
Chonlatis Darawong, (2018)	Energetic capabilities of unused item improvement groups in performing radical advancement ventures	Structural Equation Modeling	Dynamic capabilities give rise to radical innovation and consequently increased project effectiveness and efficiency	The study was narrowly operationalized and narrowly focused on new product development and not on sensing, seizing and integration capabilities.	The current study comprehensively analyzes DC, SO, innovation and competitive advantage
George Tsekouras, Efthimios Poulis, Konstantinos Poulis, (2011)	Advancement and energetic capabilities in a conventional benefit segment (shipping companies)	Comparative case studies	Process and organizational innovations and reconfiguration capabilities enable firms to realize competitive advantage from the creation of new markets	The study focused only on three companies in the shipping industry. Dynamic capabilities were narrowly explained in terms of reconfiguration capabilities.	The current study comprehensively analyzes DC, SO, innovation and competitive advantage in more than one sector

Source: Researcher, 2021

From Table 2.1, research gaps that are conceptual, contextual and methodological in nature are apparent. Divergent views on how DC and CA relate have been outlined. For instance, Ogunkoya, Hassan & Shobayo (2018) found an insignificant relationship while Kalali and Heidari (2016) found a strong relationship between the two variables. Additionally, some studies did not use all the dimensions of the constructs. For example, Ren et al. (2016) left out integration capabilities in their analysis of DC while Nakola *et al.* (2015) left out entrepreneurial and learning orientations in their analysis of SO. Several investigations into the dynamic capabilities, strategic orientation as well as innovation are rarely on public listed companies. These studies, both in Kenya and internally, also concentrate on a single industry like manufacturing, service and shipping industries (Chahal et al, 2016; Čirjevskis, 2017; Nakola *et al*.,2015). This current study addresses this gap by studying the Kenyan listed firms which are from diverse sectors of the economy. Different researchers have used diverging research designs with different analytical procedures. Some studies have been empirically undertaken and data analyzed using structural equation modelling (Darawong, 2018) while others are conceptual studies (Yongzhi & Nandini, 2012). This study employs the use of survey design and analyzes data using regression analysis.

2.8 Conceptual Model

Figure 2.1 delineated a comprehensive conceptual system appearing different connections of the consider from the hypothetical system that was prior portrayed. Energetic capabilities develop was the free variable. Key introduction was the arbitrator whereas firm advancement was the intervening variable. Competitive advantage as the subordinate variable of this consider had been proposed by writing.

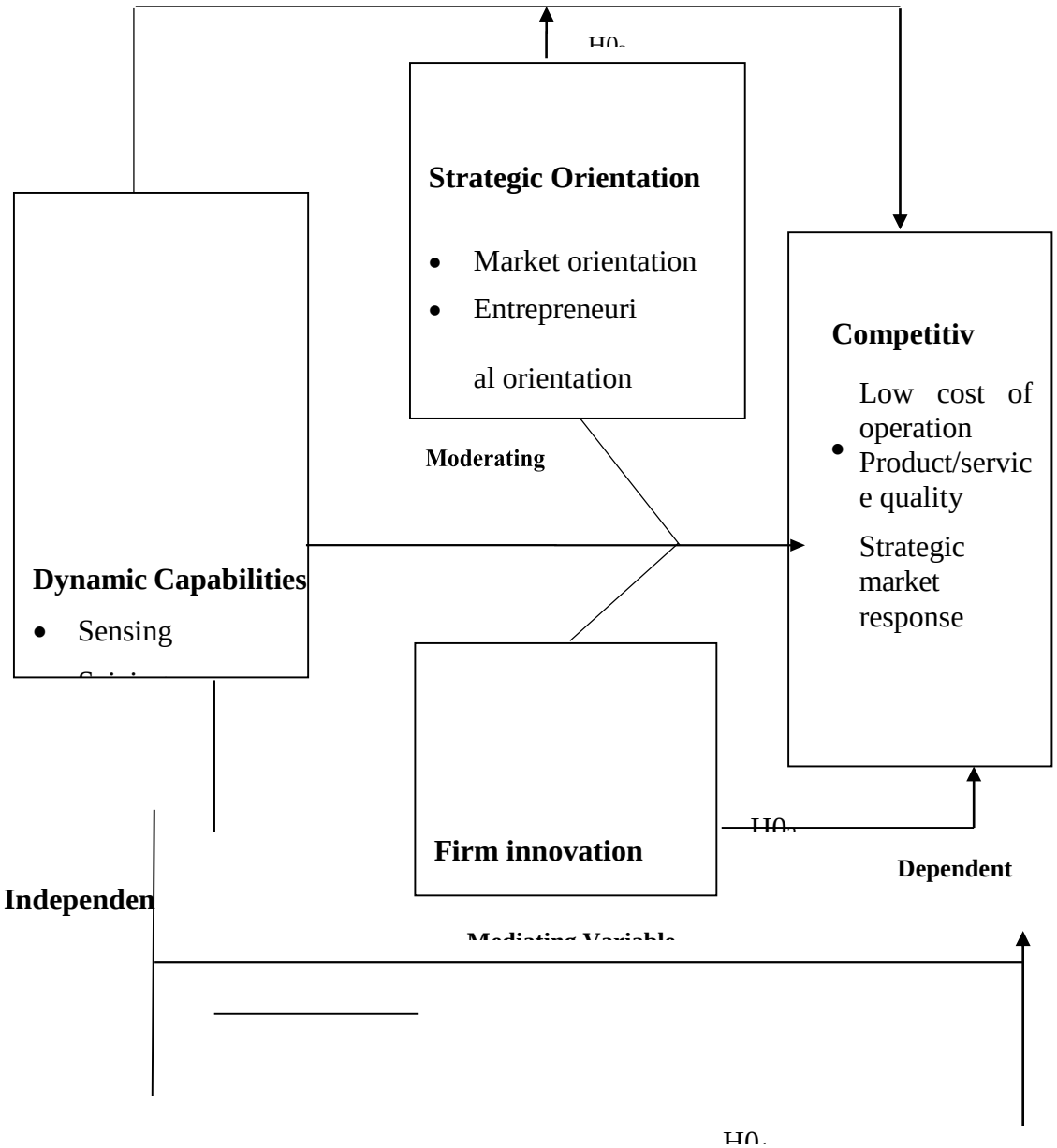

Figure 2.1: Conceptual Framework

DC comprising of detecting, seizing and integration capabilities have a coordinate impact on competitive advantage (Linden et al., 2019 & Teece et al., 2014). This can be since energetic capabilities empower firms to distinguish and contribute in developing trade openings by sanctioning the realignment of competences, remaking of resources and by

reviving their asset (Bitencourt et al., 2020). Competitive advantage portrays the capacity of a firm to realize a more noteworthy financial esteem radiating from the effective operations as compared to the competitors who are not getting the same financial esteem since they are not wasteful (Peteraf & Barney, 2003). This subordinate variable was operationalized by the firm's moo fetched of operation, product/service separation, product/service quality and key advertise reaction (Fereeira et al., 2019; Purkayastha & Sharma, 2016).

Additionally, Pehrsson (2016) observed that deploying dynamic capabilities while observing a given strategic orientation exponentially enhance a firm's position in a particular sector or industry relative to its competitors. This is because all activities are guided and geared towards implementing that orientation (Balodi, 2014). Consequently, strategic orientation moderates the relationship between dynamic capabilities and competitive advantage. Strategic orientation had market, entrepreneurial and learning orientations as the indicators and was also supported by studies conducted by Chahal *et al.* (2016) and Fereeira *et al.* (2019).

Dynamic capabilities do not produce the end products because they only reshape resource base and competences and consequently lead to firm innovation (Tresna & Raharja, 2019). This shows that firm innovation is a mediator, a conclusion also reached by Ren *et al*. (2016) as well as Pundziene, Nikou & Bouwman (2021). Firm innovation is operationalized as product, process and market innovations as put forth by Darawong (2018), Sandor *et al*. (2019) and Sharma and Rai (2015). While dynamic capabilities enable a firm to address environmental turbulence, relying on them alone might not be sufficient because other factors like strategic orientation and firm innovation could jointly

enhance a firm's competitive advantage (Eidizadeh, Ashrafi & Chitsaz, 2016; Zhou & Li, 2010). This resulted in the last specific objective and the testing of the fourth null hypothesis in order to conclude that dynamic capabilities, strategic orientation and firm innovation have a statistically significant joint effect. The conclusion has been reached by previous studies including Jiménez and Fuentes (2013) as well as Fereeira *et al.* (2019).

2.9 Research Hypotheses

The null hypotheses have been derived from the conceptual model variables and review of literature. They are shown below:

H01: There is no significant influence of dynamic capabilities on competitive advantage of companies listed at NSE.

H02: There is no significant moderating effect of strategic orientation on the relationship between dynamic capabilities and competitive advantage of companies listed at NSE.

H03: There is no significant mediating effect of firm innovation on the relationship between dynamic capabilities and competitive advantage of companies listed at NSE.

H04: Dynamic capabilities, strategic orientation and firm innovation have no significant joint effect on competitive advantage of companies listed at NSE.

The previous chapter broadly portrayed the hypothetical system and subsequently the relationship of factors within the consider. Energetic capabilities hypothesis, as the stay hypothesis clarified how detecting, seizing and integration capabilities empower an

organization realign its competences and resources and accomplish competitive advantage. The continued debate on whether dynamic capabilities directly or indirectly influence competitive advantage was put forward by reviewing empirical studies. Moreover, Li and Liu (2014) suggested that other studies should incorporate more mediating and moderating variables after they found that dynamic capabilities indirectly affect the firm's competitive advantage.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter depicts the inquire about technique that was embraced by the enquiry. It displayed inquire about philosophical establishment, the investigate plan and the think about populace. It similarly appears the information collection strategy, instrument of information collection, unwavering quality and legitimacy tests of inquire about rebellious, operationalization of investigate factors as well as information examination methods.

Research philosophy as an important element of research methodology guides the understanding of a particular phenomenon. This is possible from the specific assumptions that help in generating new ways of perceiving reality. Philosophy in research equally directs how a particular enquiry will be done. This chapter also explained the research design that was adopted in order to provide explanations and answers to the postulated questions. The nature of association between study variables was established by the research design.

The chapter, additionally, describes the population of the study and how data collection was done. It further explains the process in which the validity of the research instrument was ensured because validity depicts the accuracy of results and consequently, the inferences from the study. Reliability test was conducted to ensure consistency of the questionnaire. The operationalization of variables and the detailed data analysis techniques

was described and shown in section 3.7.

3.2 Research Philosophy

Research philosophy is a fundamental aspect of any scientific research undertaking because it gives assumptions that will guide the research nature, method of collecting evidence, its analysis and interpretation (Alharahsheh & Pius, 2020). Research philosophy is the foundation under which research is conducted. It produces knowledge that encompasses essential assumptions on how scientists and other researchers perceive the world (Saunders et *al.*, 2012). Philosophical foundation guide in the methods and analyses to be used and ultimately the outcome of an enquiry, that is, research methods (Amaratunga & Baldry, 2011).

Alharahsheh and Pius (2020) pointed out that there are two philosophical foundations occupying a continuum of research. They are phenomenology and positivism. Phenomenology is entirely qualitative and relies on an individual's perception and experiences for theory development. This approach majorly seeks to obtain data from the field, undertake analysis of the data and ultimately make conclusions that concern the nature and strength of variable relationships from empirical facts (Saunders *et al.*, 2012). In positivism, knowledge is created from factual, measurable and scientific information. This makes the predictability of the phenomena possible from an already coined theory and hence the observer is not part of the phenomenon being observed (Cooper & Schindler, 2011). Equally, the philosophy chosen is based on objectivity and not one's beliefs.

It is clear that the philosophy is anchored by objectivity of the enquiry, scientific measurement of data and validity and neutrality of the findings (O'Sullivan & Abela, 2007). The ontomological aspect positivism paradigm is that the researcher's observations of a phenomenon are objectively real (Alharahsheh & Pius, 2020). This implies that the observations are done independent of the researcher's perceptions (Ryan, Scapens & Theobald, 2002). Epistemologically, positivism philosophy requires the researcher to discover facts that can be objectively observed and measured.

Additionally, the findings from analyzed data in this regard should lead to generalization. Strategy is an imperative component of any investigate logic since it is the by and large methodology that stipulates how the inquire about will be embraced in arrange to realize its objective. The various methods or techniques of collecting and analyzing data in research emanate from the chosen methodology and its assumptions (Igwenagu, 2016).

This study was anchored on positivism because it utilized existing theories and the null hypotheses were tested before drawing conclusions from the inferences (Cooper & Schindler, 2011). The study also employed a positivism philosophical approach because it is quantitative in nature. It is also characterized by hypotheses testing that aims at confirming or not confirming the trueness of hypotheses.

3.3 Research Design

A research design as a structured direction of a study aims at obtaining answers of research questions. It is a comprehensive framework that establishes and specifies the apparent relationships amongst the study variables (Asiamah, Mensah & Oteng-Abayie, 2017). This study utilized a descriptive cross-sectional research design because it strived to depict the relationships between the constructs and also to determine the magnitude of the resulting relationships. Cross sectional surveys are used to collect data that would make induction possible at a particular time (Kihara, Ngugi & Ogollah, 2016). This type of design is appropriate as it helps in gathering information on firm factors as well as external factors that affect organizations competitiveness.

Descriptive data was collected and hypotheses tested so as to develop a comprehensive and objective conclusion. This design was chosen with guidance from the aim and extent of the enquiry as well of the nature of data that was collected and analyzed (Cooper & Schindler, 2011). Cross-sectional studies have the ability to highlight population characteristics in their natural habitat. This research design was appropriate since it provided conclusions about data at a specific point in time (Creswell & Clark, 2017).

The descriptive cross-sectional research design was chosen to be the most applicable design to describe the NSE listed firms and allow generalization to be made after the study (Mugenda & Mugenda, 2006). The design was also appropriate as it extensively and comprehensively elaborated the elements that were being investigated with the aim of

easing the understanding of the results. Moreover, descriptive survey design is agile and provides ways of exploring other parts of the problem being studied (Fereeira *et al.,* 2019). Further, this research design was appropriate for the study since it was purposed to draw conclusions from inferred statistics and give useful information for the benefit of policy-makers and managers (Mkalama & Machuki, 2019)

Testing of the hypotheses helped in reaching a concrete conclusion on the study variables. The study purposed to establish the influence of DC on CA. The moderating and mediating effect of strategic orientation and innovation was tested for the research question to be answered. Studies that have adopted this research design have reached acceptable conclusions from data collected at a specific point in time (Kihara, Ngugi & Ogollah, 2016; Karani, Aosa, Awino & Njihia, 2018; Mathooko & Ogutu, 2015; Mkalama & Machuki, 2019).

3.4 Population of the Study

A research population which is mainly the focus in a scientific enquiry consists of items of similar characteristics. This study targeted all sixty-three (63) firms listed at the NSE as its population. The firms were chosen for the enquiry since they cut across many sectors of the economy and operate in diverse sectors. Their financial exercises transverse agrarian, automobiles, media transmission, keeping money, development, protections, fabricating, venture, vitality and petroleum, genuine domain and exchanged support. Lion's share of these companies are industry pioneers in Kenya since of their broad capitalization and productivity.

The regulator, Capital Market Authority (CMA), has been given the responsibility to monitor and supervise firms listed on issues relating to capital adequacy, liquidity requirements, governance and other areas to ensure the financial stability. A list of all listed companies at the NSE is provided by the regulator, Capital Market Authority (CMA). The soundness and integrity of economic activities undertaken by these companies are of concern to CMA (Capital Market Authority Act, Cap 485 A).

The names and the total number of the firm's listed companies were sixty- three (63) as of April 2021 as shown in Appendix C. The population was convenient for this kind of study and nature and enabled statistics to be derived. The study, therefore, utilized a census approach in the collection of data from the listed firms of NSE. The major expectation was that these firms would be financially attractive to investors thereby increasing capital base and ultimately more sustainable investments in goods and or services that they offer.

3.5 Data Collection

The primary data came from filling out a questionnaire that was only partially structured. The questionnaire was developed to include closed ended questions that focused on dynamic capabilities, strategic orientation, firm innovation, as well as competitive advantage variables. This was accomplished by using previous research in the operationalization of constructs and comments from supervisors. The questionnaire was broken up into five sections, which were as follows: a background on the company, a variable demonstrating dynamic capabilities, strategic orientation, and firm innovation and competitive advantage. The aggregate explanation for each construct was provided by

close-ended questions of various indicators. The sensing, capturing, and integration capabilities made up the dynamic capabilities construct that had been outlined (Teece et al., 2014). On the other hand, Strategic Orientation was clarified by Chahal et al. through the lenses of market orientation, learning orientation, and entrepreneurial orientation (2016). The researcher was able to accomplish the goals of the study thanks to the data that was collected.

The information for the study came from the highest levels of management within the organization, including the Chief Executive Officers and the top managers in charge of the marketing, manufacturing, and finance departments. The questionnaires were filled out by either of these top management executives, and as a result, each company had only one respondent. The company's top management as well as its key managers were actively involved in the management of the company's resources and also directed the implementation of change in a variety of processes that could have an effect on the company's competitive advantage. They were able to have a better understanding of the constructs being researched because of the positions that they held in the organizations, and as a result, they were able to fill out the questionnaires in an appropriate manner. During the data collection process, research assistants were utilized. These individuals were tasked with delivering questionnaires to the workplaces of respondents so that they could be filled out. Later on, they were tasked with the responsibility of collecting them after they had been filled. This method was effective, and it made certain that data were gathered within the allotted amount of time.

3.6 Pilot Study

Before the main study was conducted, a pilot study was undertaken and its aim was to ascertain the reliability as well as the validity of the research tool. This pilot study ensured that the questionnaire was adequately revised and refined for acceptable reliability and validity measures (Saunders *et al*., 2012). Further, all problems that were going to be encountered by the respondents while filling the questionnaire were identified and addressed accordingly. This makes it possible for the respondents to easily fill the research instrument (Cooper & Schindler, 2014). The pilot study was undertaken on 7.9% of the 63 companies listed at the NSE. This translated to 5 listed companies. The firms used for pilot testing did not take part in the main research survey. The tests included reliability tests and validity tests.

3.6.1 Test of Reliability

Saunders *et al*. (2012) defined reliability of a measurement instrument as the degree to which it does not have errors and can give consistent results across time and various items in the instrument. Reliability in research demonstrates not only consistency but also accuracy. Ideally, measuring particular items depicting a phenomenon, repeatedly under constant conditions should give or yield similar results. Internal consistency is an essential element when determining reliability. Obtaining results that are consistent and precise across time is key in a research undertaking. Further reliability shows the extent of obtaining stable and consistent results from a research tool. Therefore, the observed score of a measure depicts a true score of that measure. Moreover, reliability test's goal is to

estimate measurement errors and hence its role as a measure of an instrument's internal consistency (Cooper & Schindler, 2014).

Two other forms of estimating reliability in research include test-retest and the equivalent reliability tests. Coefficients measuring internal consistency show the reliability of the content being studied. Normally distributed data has been found to have higher reliability coefficients. This implies that the measuring instrument can be relied upon in making conclusions (Cooper & Schindler, 2011). This study utilized Cronbach's alpha (α) to measures actual variance in respective variable (Cronbach & Shavelson, 2004). The coefficient alpha of 0.7 and above has been shown to provide appropriate internal consistency. Saunders *et al*. (2012) equally recommended an alpha of 0.7 to indicate a high reliability of data. This method has been found to be useful in social sciences.

Cooper and Schindler (2014) posits that a coefficient which is above 0.7 meets the acceptability threshold while those that are above 0.8 are termed as very good in ascertaining reliability test. A Cronbach Alpha coefficient of 0.7 was used as the minimum in this study as used by Bryman (2016) as well as Creswell and Clark (2017). This is supported by Cooper and Schindler (2014), where they consider between 0.7 and 0.9 Cronbach's Alpha coefficients as appropriate in testing for reliability. Marshall and Rossman (2014) however concluded that a coefficient of 0.6 as adequate in testing for reliability. In order to establish the reliability of the research instrument a pilot study was undertaken on five selected NSE companies. The respondents were urged to fill the

questionnaires, indicate the questions that needed clarification as well as make suggestions that could improve the research instrument.

Table 3.1: Summary of Cronbach's Alpha

Variable	Variable Components	Cronbach's Alpha	Comment
Dynamic capabilities	Sensing capabilities, Seizing capabilities, Integration capabilities	.913	Reliable
Strategic orientation	Market orientation, Entrepreneurial orientation, Learning orientation	.896	Reliable
Firm innovation	Product innovation, process innovation, market innovation	.916	Reliable
Competitive advantage	Low cost of operation Product/service quality , Strategic market response, Technological superiority	.877	Reliable

Source: Primary Data, (2021)

The comes about appear that the energetic capabilities variable's Cronbach's alpha is 0.913. This appears that the things joined within the estimation of energetic capabilities variable were delineating the same basic mien. The Cronbach's alpha for Technique Introduction, Firm Advancement and Competitive Advantage factors were 0.896, 0.916 and 0.877 separately appearing that the things joined within the estimation of energetic

capabilities variable were portraying the same fundamental mien The discoveries appear that all builds scored exceedingly in terms of unwavering quality coefficients and thus establish that the investigate instrument was dependable for the most study information collection.

3.6.2 Validity Test

Validity of a research instrument is of a great importance in generating conclusions of a study. It depicts the accuracy of results and consequently, the inferences from a particular study. This is possible if the instrument measurements are free from error (Cooper & Schindler, 2014). Validity equally determines the usefulness of inferences. Different validity tests can be carried out to ascertain correctness of results, for example, content, face and construct validity. The study observed content validity by establishing the extent to which the measurement instrument provided adequate coverage of the investigative statements guiding the research (Saunders *et al*., 2012). Content validity was ensured by incorporating views and judgements of content experts consisting of the research supervisors. Content validity ensures that the measure has enough items that represent the concept being investigated. Sekaran and Bougie (2014) concluded that a greater content validity is realized when the scale has more items describing a concept.

Face validity ensures that results and inferences give meaningful interpretation of

phenomena being studied (Sekaran & Bougie, 2014). To ensure this, a pilot test was conducted by administering questionnaires to five firms listed at NSE and were randomly chosen. The pre-testing of a questionnaire determined the clarity of questions, their specificity and relevance. Identified shortcomings of the questionnaire were addressed to ensure an adequate data collection instrument (Omagwa, 2014).

Encourage, Kaiser- Meyer- Olkin (KMO) and Barlett's Test of Sphericity were utilized within the finding out of legitimacy of the instrument. Yin (2014) concluded that information with a KMO esteem more prominent than 0.5 and Barlett's Test of Sphericity which is measurably noteworthy is suitable for measurable examination. If KMO value is 0, the total sum of partial correlations is large as compared to the total sum of correlations. This indicates a big dispersion of correlations patterns and therefore will give not valid results. A KMO value which is approximately nearing to 1 depicts relatively concentrated correlations patterns and therefore the results will give specific and distinguishable factors. A KMO value which is approximately nearing to 1 depicts relatively concentrated correlations patterns and therefore the results will give specific and distinguishable factors. Field (2000) concluded that KMO value which is greater than 0.5 is good and should be used for statistical analysis. Table 3.2 show the Kaiser- Meyer- Olkin (KMO) and Barlett's Test of Sphericity results.

Table 3.2: The Summary of KMO and Bartlett's Test

Variable	KMO	Bartlett's Test of Sphericity		
		Chi-Square (χ)	df	Significance Level
Dynamic Capabilities	.597	1122.900	630	.000
Strategic Orientation	.639	858.721	435	.000
Firm Innovation	.770	848.600	406	.000
Competitive Advantage	.807	353.418	91	.000

Source: Field Data (2021)

The result in Table 3.2 indicates that KMO index was greater than 0.5. Dynamic Capabilities (KMO =.597, χ = 1122.900, df= 630 and significance level =0.000); Strategy Orientation (KMO =.639, χ = 858.721, df= 435 and significance level =0.000); Firm Innovation (KMO =.770, χ = 848.600, df= 406 and significance level =0.000); Competitive Advantage (KMO =.807, χ = 353.418, df= 91 and significance level =0.000). On the other hand, the *p* value from Bartlett's test of Sphericity result is 0.000 and shows that the validity test of the data was met since it was within the acceptable of significance. A significant relationship amongst variables was established. Moreover, all KMO scores were greater

than 0.50 and were significant paving way for further statistical analysis such as regression analysis of all items of research tool.

3.7 Operationalization of Key Study Variables

The constructs in this study (dynamic capabilities, strategic orientation, firm innovation and CA) were operationalized as depicted by Table 3.3. This process enhanced the understanding of the variables and made it possible to have quantitative measurement. The independent, mediating, moderating and dependent variables were operationalized using literature review precedents.

Table 3.3: Operationalization of Key Study Variables

Variable of the study	Indicators	Supporting Literature	Measurement scale
Dynamic Capabilities	Sensing capabilities, Seizing capabilities, Integration capabilities	Linden *et al.* (2019) Helfat & Peteraf (2015) Teece *et al.* (2014	Nominal scale measured the extent to which various aspects of dynamic capabilities were manifested in the firm
Strategic Orientation	Market orientation, Learning, Entrepreneurial orientation	Fereeira *et al.* (2019) Chahal *et al.* (2016) Balodi (2014)	Nominal scale measured the extent to which various aspects of strategic orientation were manifested in the firm
Firm Innovation	Product innovation, process innovation, market innovation	Sandor *et al.* (2019) Darawong (2018) Sharma & Rai (2015)	Nominal scale measured the extent to which various aspects of firm innovation were manifested in the firm
Competitive Advantage	Low cost of operation Product/service differentiation, Product/service quality , Strategic market response	Fereeira *et al.* (2019) Purkayastha & Sharma, (2016)	Nominal scale measured the extent of manifestation of various aspects of competitive advantage were manifested in the firm

Source: Researcher, 2021

Operationalization of study variables is paramount in all research studies. It involves the process specifying the measurement of key constructs or concepts thereby enabling further research treatments of variables like hypothesis testing (Cooper & Schindler, 2011). The current study operationalized its key variables which are dynamic capabilities, strategic orientations, firm innovation and competitive advantage as illustrated in Table 3.3.

3.8 Data Analysis and Diagnostic Tests

After the completion of information collection handle, the investigate disobedient were totaled, coded, cleaned, summarized and crude information input to a computer. This think about utilized Measurable Bundle for Social Science (SPSS) amid examination. Graphic as well as inferential measurements given a conclusive depiction and data of information analyzed. Expressive insights involves getting the entireties, implies, coefficient of varieties, standard deviations and rates. The inferential insights delineated the scope and quality of connections among the factors that were being examined as well as testing stipulated speculations.

Pearson Minute Coefficient Relationship (r) was be computed to discover the quality of affiliation between any two factors of the consider with an point of deciding the degree of relationship, that's , the quality of relationship. Eventually, the t-test sought to set up the nearness of noteworthiness in relationship among autonomous factors. The utilize of multivariate relapse investigation to find out the connect among energetic capabilities, vital introduction, firm development and competitive advantage was embraced.

The directing impact of SO on the relationship between DC and CA was tried utilizing the demonstrate coined by Noble and Kenny (1986). In arrange to discover whether firm advancement may be a arbiter, the consider utilized way examination as by Aristocrat and Kenny (1986) to test the speculation. Different relapse examination appeared the impact of energetic capabilities, vital introduction and firm development on competitive advantage. Table 3.4 summarized investigate destinations, theories, investigation as well as the demonstrate estimation. The consequent yield shown the degree to which the ponder realized the common and particular targets.

Table 3.4: Research Study Objectives, Hypotheses, Analysis and Model Estimation

Objectives	Hypotheses	Analysis and Model Estimation	Interpretation
Determine the influence of DC on CA of companies listed at NSE	There is a significant influence of DC on CA of companies listed at NSE.	Simple regression analysis: $CA = \alpha + \beta_1 DC + \varepsilon$ CA= Competitive Advantage DC = Dynamic Capabilities, α= constant β=regression coefficient, ε= Error term	Coefficient of determination (adjusted R^2) value will show the amount of variation in Competitive advantage explained by dynamic capabilities. Regression coefficient will show the amount of change and the direction of the influence
Determine the moderating effect of strategic orientation on the relationship between DC and CA of companies listed at NSE.	There is a significant moderating effect of strategic orientation on the relationship between DC and CA of companies listed at NSE	Three Step Methodology: (Baron and Kenny (1986). Step1 : $CA= \alpha + (\beta_1 DC) + \varepsilon$ Step 2:$CA= \alpha+ \beta_1 DC + \beta_2 SO + \varepsilon$ If the relationship is significant then proceed to: Step 3: $CA= \alpha + \beta_1 DC + \beta_2 SO + \beta_3 SO*DC + \varepsilon$ CA= Competitive Advantage DC = Dynamic Capabilities, SO= Strategic Orientation α= constant β=regression coefficient, ε= Error term, *=interaction term	The value of adjusted R^2 will show variation in Competitive advantage explained by dynamic capabilities. F ratio will indicate overall robustness and significance of the regression model. Reject H0 if $p<0.05$ Conduct Stepwise process. Regression Coefficient show whether dynamic capabilities construct influences competitive advantage strongly with strategic orientation

Table 3.2 Cont'd…

Determine the intervening effect of firm innovation on the relationship between DC and CA of firms listed at NSE.	There is a significant mediating effect by firm innovation on the relationship between DC and CA of companies listed at NSE	Four Step Mediation Methodology: (Baron and Kenny (1986). Step1: $CA = \alpha + \beta 1\ DC + \varepsilon$ Step 2: $FI = \alpha + \beta_2\ DC + \varepsilon$ Step3: $CA = \alpha + \beta_3 FI + \varepsilon$ If the relationship is significant then proceed to: Step 4: $CA = \alpha + \beta_1\ DC + \beta_2 FI + \varepsilon$ CA= Competitive Advantage DC = Dynamic Capabilities, FI= Firm innovation, α= constant (intercept), β=regression coefficient, ε= Error/disturbance,	R^2 is an indication of the amount of variation in Competitive advantage explained by Dynamic Capabilities. F-ratio test (Analysis of Variance) explains overall robustness and significance of the regression model. Reject H0 if $p<0.05$. A reduction of R^2 when Firm innovation is introduced into the model will indicate partial mediation
Determine the joint effect of DC, strategic orientation and Firm innovation on CA of firms listed at NSE.	Dynamic capabilities, strategic orientation and firm innovation have a significant joint effect on CA of companies listed at NSE	Pearson's Correlation Multiple regression analysis: $CA = \alpha + \beta_1 DC + \beta_2 SO + \beta_3 FI + \varepsilon$ Where, CA= Competitive Advantage DC= Dynamic Capabilities, SO=Strategic Orientation FI= Firm innovation. α= constant (intercept), β=Coefficient parameters to be determined, ε= Error/disturbance	The value of adjusted R^2 will show the amount of variation in competitive advantage explained by the independent variables F ratio will indicate overall robustness and significance of the regression model. Reject H_0 if $p<0.05$ Regression coefficients will show whether Dynamic capabilities, Strategic orientation and Firm innovation have an influence on Competitive advantage of an organization

Source: Researcher, 2021

Alharahsheh and Pius (2020) emphasized the need for independent and dependent variables to comply with some rules. This is in regard to normality, linearity, homoscedasticity and multicollinearity. According to Sharma and Rai (2015), parametric statistical tests can only be conducted if data collected is gotten from a normally distributed sample. These tests incorporate relationship investigation, relapse investigation, t tests as well as investigation of fluctuation. In this respect, the presumption that the test comes from a populace that has normal-like dissemination holds to the letter. Creswell and Clark (2017) concluded that factual and dependable conclusions about a phenomenon are only possible if the normality assumptions hold. Omagwa (2014) pointed out that K-S and Shapiro-Wilk tests are commonly used in assessing normality non- graphically. The study depicted normality graphically using Q-Q plots and non-graphically using K-S test and Shapiro-Wilk test.

Linearity implies that two variables have a relationship that could be plotted on a straight line. The relationship could be positive where the dependent and independent variables are moving in a similar direction or negative where they are moving towards opposite directions. There are circumstances where there is no relationship and can be seen from non-discernable pattern of linear relationship. The assumption of linearity of relationships is pertinent in reaching appropriate conclusions of the enquiry (Asiamah, Mensah & Oteng-Abayie, 2017).

Homoscedasticity implies that the variance of random error terms is constant across different values of independent variables when comparing them to a dependent variable (Asiamah, Mensah & Oteng-Abayie, 2017). This is an important requirement for ensuring accurate hypotheses testing since the variances of the errors will be equal and therefore the confidence intervals will be appropriate. This study's test of homoscedasticity was measured using Levene's test. Homogeneity of variance test ensures that there is less biasness in the estimation of standard errors that could overestimate the Goodness of Fit. After conducting a Levene's test, a statistically significant test $\boldsymbol{\alpha}$<=0.05 shows that the variances across the samples are unequal. Conversely, a non-statistically significant p value shows that there is equality of variance across the sample groups.

Keraro (2014) and Ombaka (2014) concluded that determining and ascertaining the intercorrelations between independent variables of a statistical model is paramount for reaching dependable conclusions about a phenomenon. Multicollinearity tests, therefore, gauges whether there are high correlations amongst predictor variables (Saunders et *al.,* 2012). These tests include the measurement of Tolerance levels as well as calculating the Variance Inflation Factor (VIF). This study employed a tolerance value which was below 0.8 and VIF value which was below 10 to test for multi-collinearity within independent variable relationships. The VIF diagnostic is used to ensure the non-overlapping nature of the predictor variables which in turn may inflate variance explained or the coefficient of determination R^2.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.1 Introduction

The main objective of this study was to determine the effect of strategic orientation and firm innovation on the relationship between dynamic capabilities and competitive advantage of companies listed at NSE. This objective was going to be realized by setting four specific objectives, formulating and testing their corresponding hypotheses. These processes were essential since the study purposed to reach valid conclusions which emanated from the aforementioned specific objectives and resulting hypotheses testing.

The data was collected and obtained using a structured questionnaire developed from elements of study variables. Statements describing an aspect of each study variable was presented to the respondents in a five-point Likert-type scale. The respondents were required to show the extent of applicability of these statements. The findings of pre-testing the questionnaire in terms of validity as well as were discussed. Reliability and validity ascertained the appropriateness of the resulting data and consequently answering pertinent research question from the objectives.

4.2 Response Rate

A descriptive cross-sectional survey was administered to all of the companies that are listed on the NSE for the purpose of this study. Collaborators in the preparation of the investigation managed the organization of surveys to individual businesses. The target population for the study included all of the companies that were listed on the NSE. 58 questionnaires were handed out to the various individuals who participated in the survey.

The respondents were responsible for accurately filling out and subsequently returning forty (40) surveys. As a consequence of this, the reaction rate was 68.9%.The remaining 31.1% were inert indeed after a few follow-ups and updates.

Table 4.1: Response Rate

Response Rate	Number	Percentage (%)
Total responses achieved	40	68.9
Total Non-responses	18	31.1

Source: Primary Data, (2021)

This consider reaction rate is considered great for study investigate by Kachouie et al. (2018) where they propose a reaction rate of 50% as worthy to analyze and distribute, 60% reaction rate as great and 70% and over reaction rate as exceptionally great.

4.3 Tests of Statistical Assumptions

In order to determine whether the collected data met some important thresholds for further statistical analysis, statistical assumptions were tested. These include tests to establish that the data assumed normal curve, data followed a linear path, was homogeneous and had no multicollinearity tendencies. Based on these results, measures of central tendency, dispersion, significance tests, association and prediction tests were undertaken.

4.3.1 Test of Normality

Concurring to Alharahsheh and Pius (2020), information expecting a ordinary dissemination makes it conceivable to conduct parametric measurable tests like relationship investigation, relapse examination, t tests as well as investigation of fluctuation. In this respect, the suspicion that the test comes from a regularly disseminated populace holds to the letter. Creswell and Clark (2017) concluded that factual and dependable conclusions about a phenomenon are only possible if the normality assumptions hold. Elliott and Woodward (2007) concluded that conducting parametric procedures on large sample sizes of above 30 will still yield acceptable results even without obeying the normality assumption where the data must be normally distributed. Despite the fact that this study's sample size was above 30, normality tests were conducted.

Typicality of information can be displayed graphically for visual review or non-graphic factual ordinariness tests (Oyugi, 2006). Despite the use of visual inspection of distribution to assess normality, the method is less reliable in ascertaining that the distribution is actually normal. However, graphical interpretation of normality is important in cases where judgement is required due to over or under sensitivity of numerical. Bryman (2016) observed that visual presentation of data allows users of the final findings to assess the extent of normal distribution of the data used.

Non-graphic statistical normality tests can be used to enhance graphical determination of

normality (Elliott &Woodward, 2007). Statistical tests provide the only way of reaching at an objective conclusion regarding normality of data. However, this conclusion might not be arrived at because the tests might be less sensitive when using small sample sizes and extremely sensitive when using large samples. This could explain the reason why some statisticians visually make subjective judgement about normality of data by utilizing their experience. Due to these reasons this think about embraced graphically ordinariness test utilizing Q-Q plots and non-graphic factual typicality tests utilizing K-S test and Shapiro-Wilk test.

Table 4.2: Tests of Normality

The Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Dynamic Capabilities	.033	40	.200*	.993	40	.972
Strategic Orientation	.058	40	.200*	.989	40	.840
Firm Innovation	.049	40	.200*	.991	40	.938
Competitive Advantage	.068	40	.200*	.981	40	.454

Source: Research Data (2021)

Table 4.2 shows that the P values on both K-S and Shapiro-Wilk tests were greater than 0.05. This implies that the data was drawn form a population that assumes a normal distribution. The significance levels in this case from the Shapiro-Wilk test were 0.972, 0.80, 0.938 and 0.454 respectively. Shapiro-Wilk test remains a fundamental way of measuring normality. A non-significant p value of a statistic shows that the assumption of normality has been observed. However, supplementing the test with Q-Q plots shows how the values lie along the fit line.

4.3.1.1 A Quantile - Quantile (Q-Q) Plot

A Q-Q plot is used to visually display data sets that have been divided into equal parts called quantiles. Interpreting Q-Q plots is relatively easy when large sample sizes have been employed. When Q-Q plot has been utilized, the scatter of normally distributed data will fall close to the line and there is no discernable pattern formed further from the line. Utilizing SPSS, this ponder carried out Q-Q plot of typicality test to all the four consider factors. These Q-Q plots are shown in Figure 4.1 to figure 4.4. Figure 4.1 shows the Q-Q plot of dynamic capabilities construct.

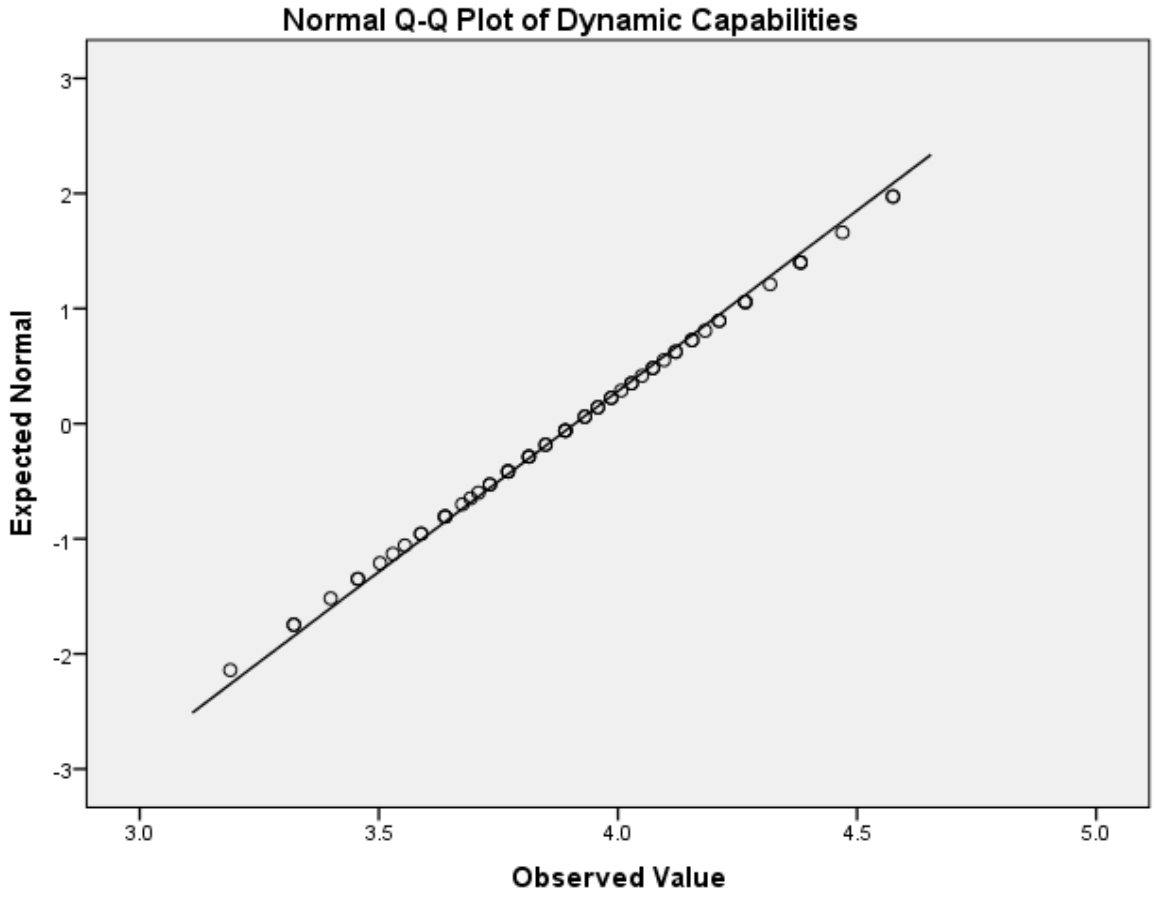

Figure 4.1: The Normal Q-Q Plot on the Independent Variable Dynamic Capabilities

Source: Field Data (2021)

The Figure 4.1 portrays a pictorial representation of how the information focuses of the autonomous variable drop near or distant from the inclining line. From this figure, the Q-Q plot appears that a larger part of the scramble specks were falling near to the corner to corner line and thus, the populace from which the autonomous variable was drawn from was regularly conveyed. This was key as it ascertained the assumption of normality and it

paved way for conducting further analysis. Figure 4.2 shows the Q-Q plot of strategic orientation.

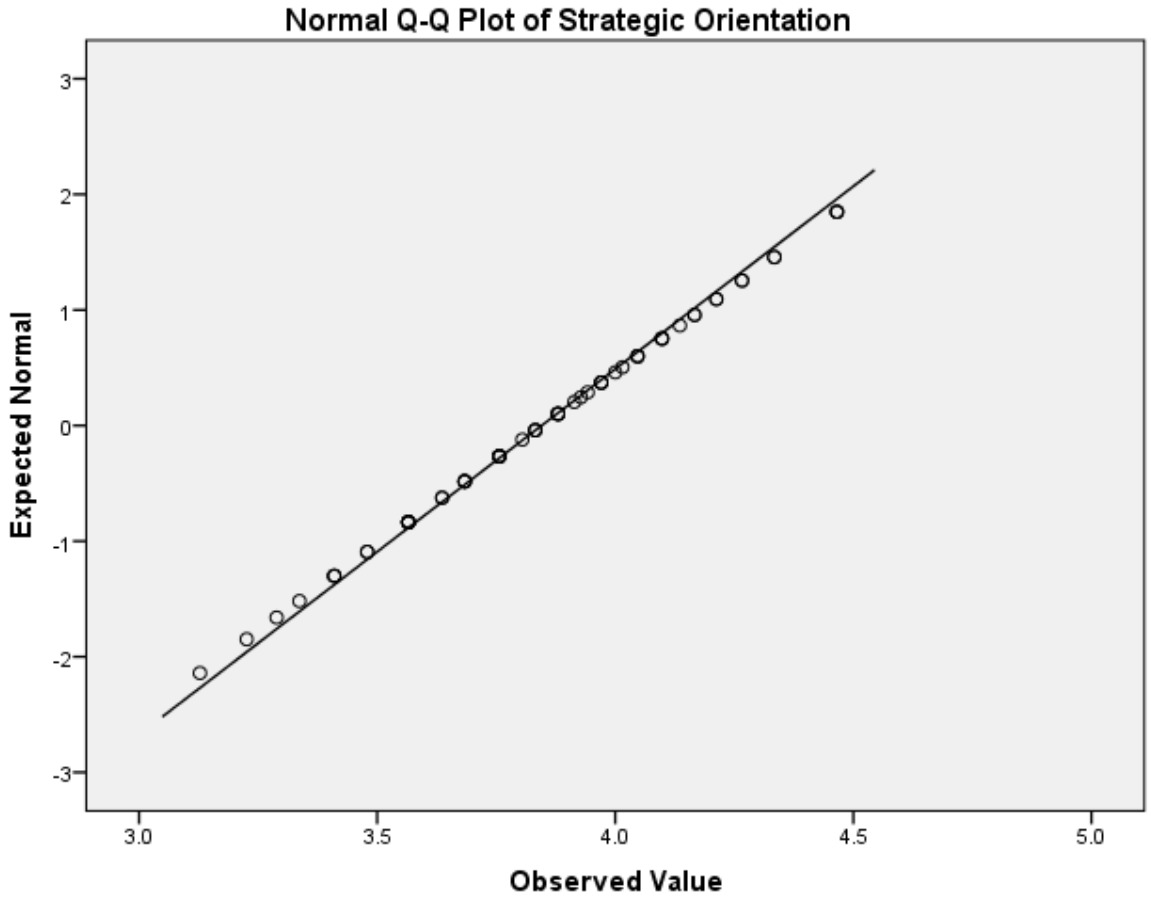

Figure 4.2: The Normal Q-Q Plot on the Independent Variable Strategic Orientation

Source: Field Data (2021)

The Figure 4.2 depicts a pictorial representation of how the data points of strategic orientation fall close or far from the diagonal line. From this figure, the Q-Q plot shows that a majority of the scatter dots were falling close to the diagonal line and therefore, the population from which the moderator variable was drawn from was normally distributed.

This was key as it ascertained the assumption of normality and it paved way for conducting further analysis. Figure 4.3 shows the Q-Q plot of firm innovation.

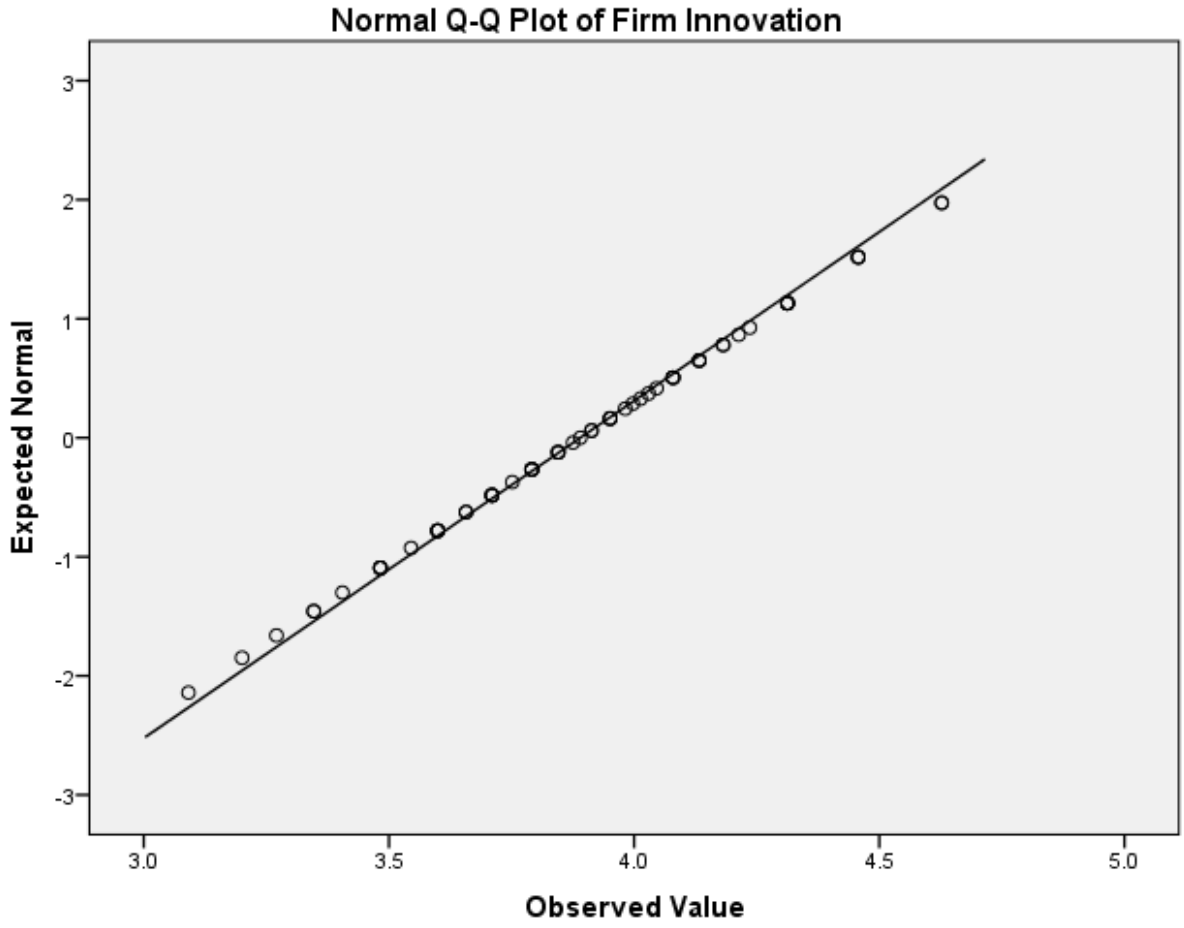

Figure 4.3: The Normal Q-Q Plot on the Independent Variable Firm Innovation

Source: Field Data (2021)

The Figure 4.3 depicts a pictorial representation of how the data points of firm innovation fall close or far from the diagonal line. From this figure, the Q-Q plot shows that a majority of the scatter dots were falling close to the diagonal line and therefore, the population from

which the mediator variable was drawn from was normally distributed. This finding enabled further data analysis to be conducted. Figure 4.1 shows the Q-Q plot of competitive advantage.

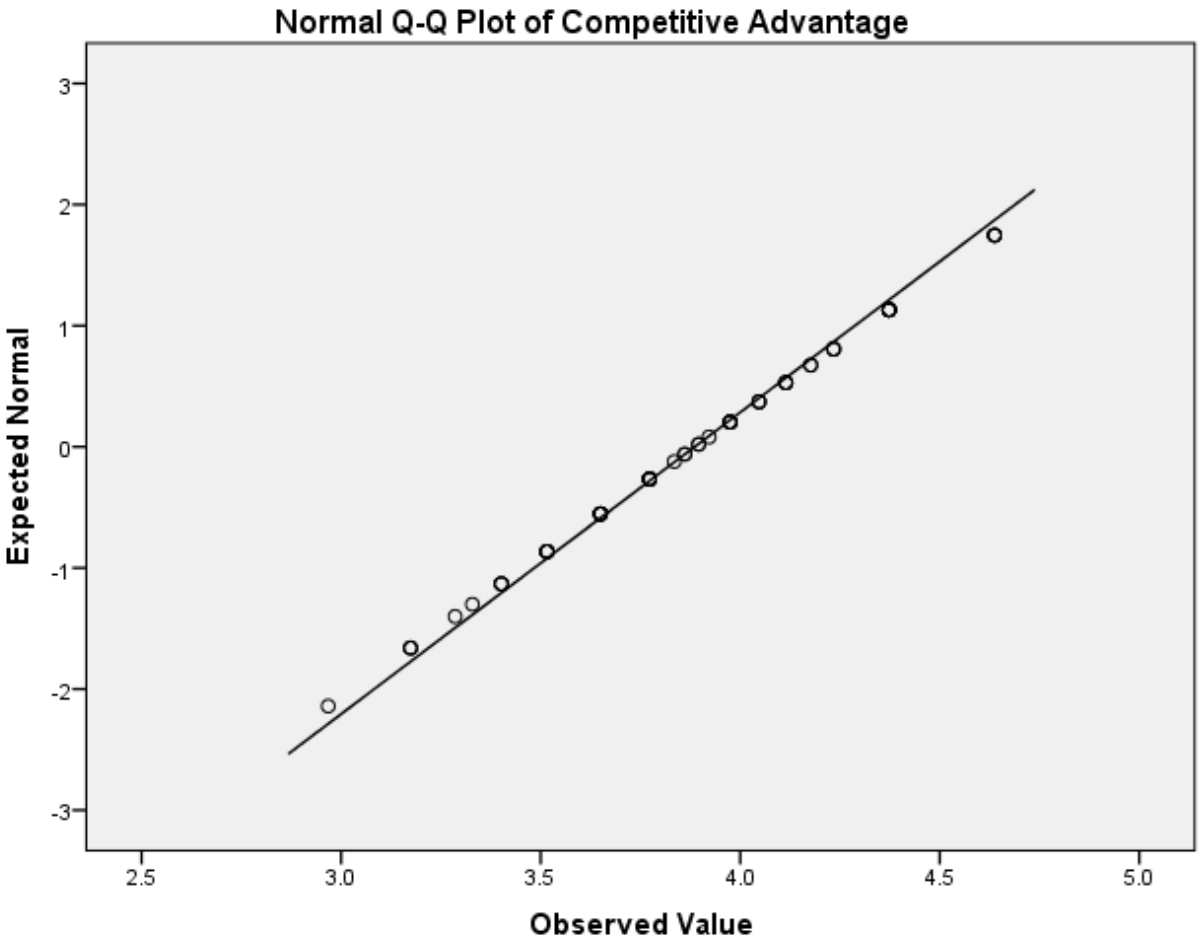

Figure 4.4: Normal Q-Q Plot on the Dependent Variable Competitive Advantage

Source: Field Data (2021)

The Figure 4.4 depicts a pictorial representation of how the data points of competitive advantage fall close or far from the diagonal line. From this figure, the Q-Q plot shows that

a majority of the scatter dots were falling close to the diagonal line and therefore, the population from which the dependent variable was drawn from was normally distributed.

4.3.2 Test of Multicollinearity

Keraro (2014) and Ombaka (2014) concluded that determining and ascertaining the intercorrelations between independent variables of a statistical model is paramount for reaching dependable conclusions about a phenomenon. Multicollinearity tests, therefore, gauges whether there are high correlations amongst predictor variables. These tests include the measurement of Tolerance levels as well as calculating the Variance Inflation Factor (VIF).

Agreeing to Cohen et al., (2003), the most extreme resilience level of multi-collinearity is 0.8. Hair et al. (2006) concluded that in arrange to discover the nonattendance of multi-collinearity, a VIF of less than 10 ought to be watched. This consider embraced resilience esteem which was less than 0.8 and VIF esteem which was less than 10 to test for multi-collinearity inside free variable connections.

Table 4.3: Multicollinearity Test

	The Collinearity Statistics		Comment
Model	**Tolerance**	**VIF**	
(Constant)			
Dynamic Capabilities	.403	2.481	No multicollinearity
Strategic Orientation	.334	2.997	No multicollinearity
Firm Innovation	.477	2.097	No multicollinearity

Dependent Variable: Competitive Advantage

Source: Research Data (2021)

The comes about from Table 4.3 appear the resistance and VIF values for the autonomous factors. The resilience and VIF values for factors are; Energetic Capabilities' Resistance [0. 403] and VIF [2.481], Methodology Introduction Resilience [0. 334] and VIF [2.997] and for Firm Development Resistance [477] and VIF [2.097]. The discoveries appear that there were no cases of multicollinearity among free variable connections.

4.3.3 Test of Homoscedasticity

Homoscedasticity implies that the variance of random error terms is constant across different values of independent variables when comparing them to a dependent variable. This is an important requirement for ensuring accurate hypotheses testing since the

variances of the errors will be equal and therefore the confidence intervals will be appropriate. This study's test of homoscedasticity was measured using Levene's test. Homogeneity of variance test ensures that there is less biasness in the estimation of standard errors that could overestimate the Goodness of Fit. After conducting a Levene's test, a statistically significant test **α**<=0.05 shows that the variances across the samples are unequal. Conversely, a non-statistically significant p value shows that there is equality of variance across the sample groups. The significant values for the Levene's test were 1.454 for dynamic capabilities, 1.682 for Strategy orientation and 1.804 for firm innovation as shown in Table 4.4.

Table 4.4: Tests for Homogeneity of Variances

Variable	Levene's Statistic	df1	df2	Sig.
Dynamic Capabilities	1.454	19	27	.222
Strategic Orientation	1.682	15	34	.177
Firm Innovation	1.804	14	31	.084

Dependent Variable: Competitive advantage

Levene's test for homogeneity of changes was not measurably noteworthy as affirmed by P-values that were all more noteworthy than 0.05 (Table 4.4). The test affirmed the homogeneity of fluctuation of irregular blunder terms. Levene's insights of energetic capabilities, key introduction and firm advancement were 1.454, 1.682, 1.804 separately. In cases where Ghasemiand and Zahediasal (2012) concluded that Levene's measurements

that are measurably noteworthy and p is more noteworthy than 0.05, abuse the suspicion of homogeneity of fluctuations and seem cause the estimation of Goodness of Fit. Typically alluded to as heteroscedasticity where the changes of irregular blunders in a relapse demonstrate change over the information.

4.3.4 Test of Linearity

Linearity infers that two factors have a relationship that may well be plotted on a straight line (Hair et al., 2010). The think about utilized scatterplots to test for linearity. Scramble plot appears a visual representation of how the indicator factors within the consider relate with the subordinate variable. The relationship may be positive where the subordinate and free factors are moving in a comparable course, negative where they are moving towards inverse headings or none at all, hence no clear design of straight relationship. The nonappearance of a relationship that expect linearity of free factors and the subordinate factors impacts the results of the relapse direct investigation to mis-approximate the genuine relationship.

Figure 4.5, 4.6 and 4.7 appears that for the three factors, deviation from linearity was not noteworthy since all the p-values were more than 0.05. Hence, it suggested that a direct relationship exists between the study's subordinate variable and indicators factors comprising the autonomous, intervening and directing factors independent of the nature (solid, direct or powerless) or the sort (negative or positive) of the relationship. The relationship underpins the presumption of linearity as it were when the invalid speculation is rejected because it will have a p-value is that's lower than 0.05.

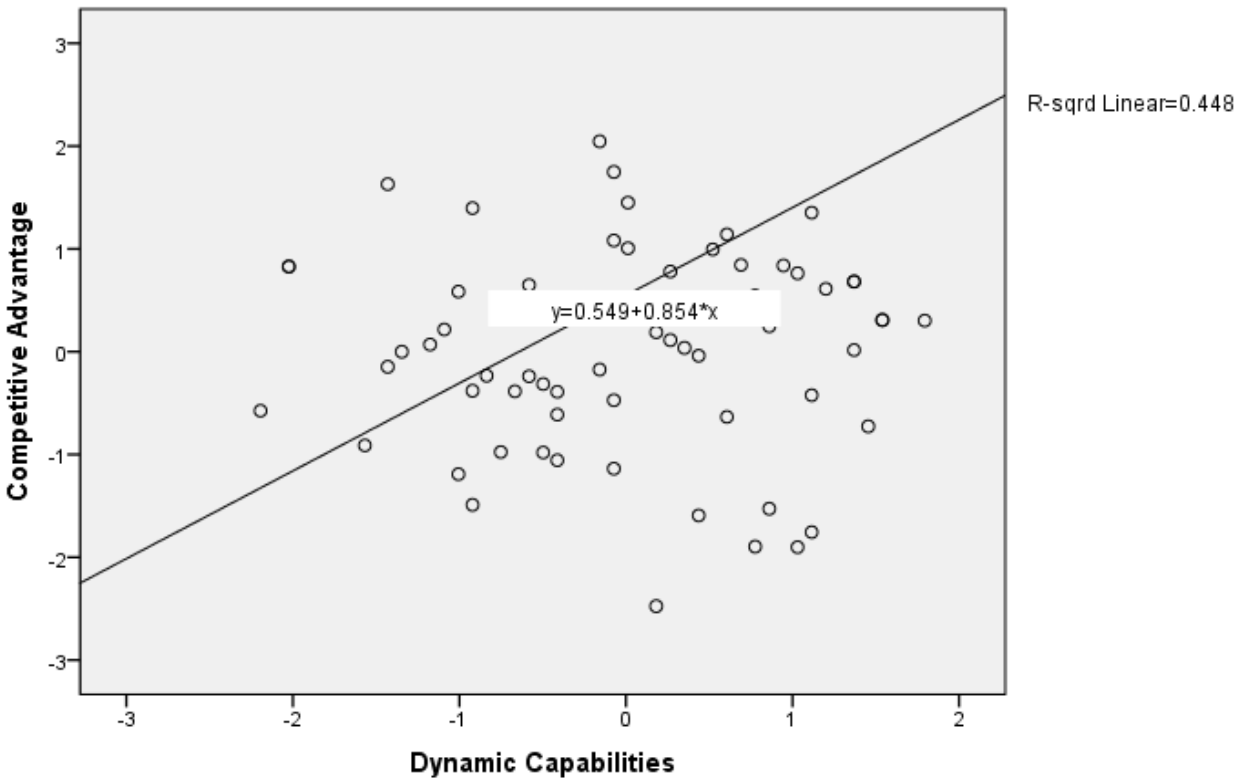

Figure 4.5: Linearity Scatter Plot of Data for Dynamic Capabilities

Source: Field Data (2021)

Figure 4.5 shows a strong positive linear association between dynamic capabilities variable and competitive advantage. The study's population which comprises of more than 30 firms ($n \geq 30$) and is considered as a large sample in research, will neutralize the adverse effects of few observed values that fell away from the straight line. The results are therefore fit for further analysis.

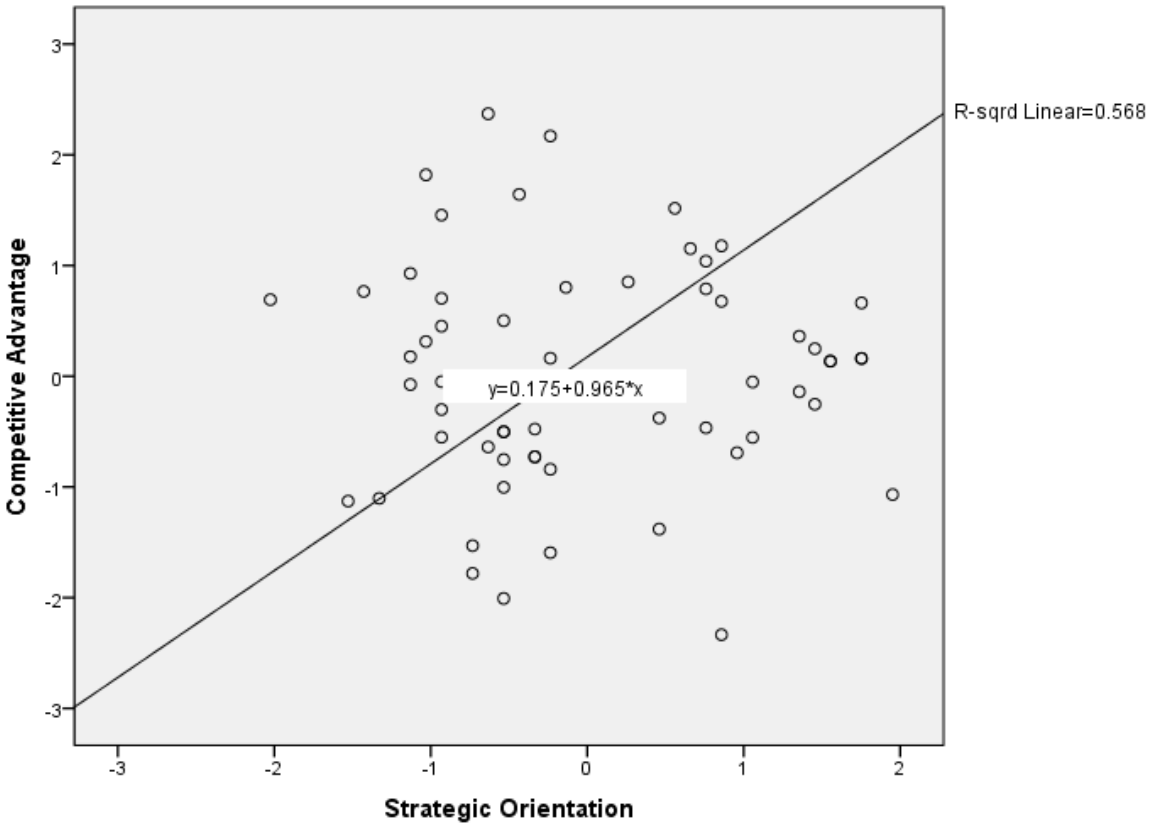

Figure 4.6: Linearity Scatter Plot of Data on Strategic Orientation

Source: Field Data (2021)

Figure 4.6 appears a solid positive direct affiliation between the key introduction as the mediator variable and competitive advantage speaking to the result variable. The study's populace which comprises of more than 30 firms ($n \geq 30$) and is considered as a huge test in investigate, will neutralize the unfavorable impacts of few watched values that fell absent from the straight line. The comes about are in this manner fit for investigation.

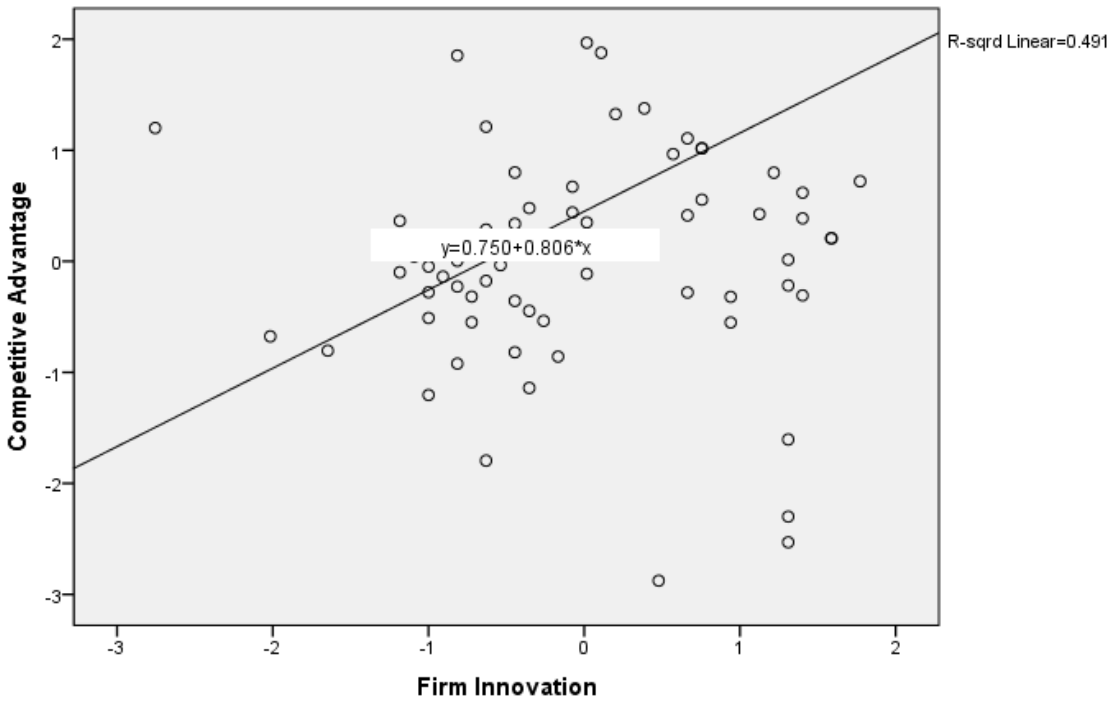

Figure 4.7: Linearity Scatter Plot of Data on Firm Innovation

Source: Field Data (2021)

Figure 4.7 appears an awfully solid positive direct affiliation between the firm advancement as the go between variable and competitive advantage speaking to the subordinate variable. The study's populace which comprises of more than 30 firms ($n \geq 30$) and is considered as a expansive test in inquire about, will neutralize the antagonistic impacts of few watched values that fell absent from the straight line. The comes about are hence fit for encourage investigation.

4.4 Organizational Demographic Profiles

The companies recorded at NSE are broad in scope of financial exercises extending from rural, automobiles, media transmission, keeping money, development, protections, fabricating, speculation, vitality and petroleum, genuine domain and exchanged stores. Moreover, these companies vary in estimate, age and the period in which they have been operational as recorded firms. This think about decided the estimate in terms of the number of lasting workers.

4.4.1 Size Based on the Number of Permanent Employees

Size of the firm is key in ascertaining internal processes and therefore the study determined the number of permanent employees in each listed firm. The firm with many personnel means its operation is bigger thus requiring more employees in each functional unit to carry out the needed roles. The findings are presented in Table 4.5.

Table 4.5: Size Based on the Terms of number of Permanent Employees

No. of Permanent Employees	Frequency	Percentage (%)
Between 1 and 300	13	32.5
Between 301 and 600	6	15
Between 601 and 900	2	5
Between 901 and 1200	6	15
Above 1201	13	32.5
Total	**40**	**100**

Source: Field Data (2021)

The results show that majority of the companies listed at NSE have employees with a range between 1 and 300 (32.5%) as well as above 1201 (32.5%). These ranges were followed by another tie of two categories with similar percentage of 15%. The ranges were 301-600 and 901-1200. The last category had companies with permanent employees ranging between 601 and 900 at 5%. The findings therefore suggest that companies listed at NSE are relatively large and employ permanent personnel. The study concludes that majority of companies listed at NSE have adequate personnel that ensure that information gathered in the environment is capitalized to attain a competitive advantage.

4.4.2 Years of Operation

The study sought to determine when the surveyed firms were started and hence how many years they have been in operation. This was to establish whether the listed companies have experienced environmental dynamism and to what extent which necessitates the adoption of dynamic capabilities, strategic orientation as well as investing in firm innovation for the realization of competitive advantage. The findings are presented in Table 4.6.

Table 4.6: Years of Operation

Years of Operation	Frequency	Percentage (%)
>31	34	85
21-30	2	5
10-20	2	5
<10	2	5
Total	**40**	**100.0**

The results in Table 4.6 indicate that many of listed companies (85%) have operated for more than 31 years. There was a tie in the other three categories at 5% where some listed companies had been in 21-30 years, 10-20 years and less than 10 years. The findings therefore implies that many companies listed at NSE have been in existence for long and are able to manifest and inform the purpose of the study on dynamic capabilities, strategic orientation and firm innovation and how they help firms realize a competitive advantage.

4.4.3 Years of Operation as a Listed Company at NSE

The study sought to determine the number of years the firms have been operating as listed firms at NSE. This was to investigate whether the surveyed firms have been listed for long or they have recently been listed and understand the role of dynamic capabilities, strategic orientation and firm innovation in the attainment of competitive advantage. The findings of the study are presented in Table 4.7.

Table 4.7: Years of Operation as Listed company at NSE

Years of Operation as a Listed company at NSE	**Frequency**	**Percentage (%)**
>31	20	50
21-30	5	12.5
10-20	5	12.5
<10	1	25
Total	**40**	**100.0**

Source: Field Data (2021)

The results indicate that many of the surveyed listed companies have operated for more than 31 years. This was showed by the highest percentage of 50%. It was followed by a category of companies that had operated as listed firms for less than 10yrs. There was a tie in the last categories at 12.5% where some listed companies had been operating as listed firms between 21-30years and between 10-20years.The findings imply that the majority of the companies listed at NSE have been operating as listed firms for long and are able to manifest and inform the purpose of the study on dynamic capabilities, strategic orientation and firm innovation and how they help firms realize a competitive advantage

4.4.4 Industry Categorization of Listed Companies

The study sought to determine the industry categories in which the listed companies belong. This was to establish the representation of the major Kenyan industries at the NSE. The study findings are presented in Table 4.8

Table 4.8: Industry categorization of listed companies

Industry	Frequency	Percentage (%)
Agricultural	4	10
Banking	5	12.5
Construction and Allied	3	7.5
Insurance	5	12.5
Manufacturing and allied	7	7.5
Real Estate Investment	1	2.5
Automobiles and Accessories	0	0
Commercial and Services	9	22.5
Energy and Petroleum	1	2.5
Investment	5	12.5
Telecommunication and	0	0
Others (specify)	0	0
Total	**40**	**100.0**

Source: Field Data (2021)

From the respondents, the majority of surveyed listed companies belonged to Commercial and Services. This was showed by the highest percentage of 22.5%. It was followed by listed companies in Manufacturing and Allied at 17.5%. There was a tie in the next three categories where surveyed listed companies belonged to Banking, Insurance and Investment industries at 12.5%. Listed companies belonging to Agricultural industry made up 10% of the studied listed companies.

There were surveyed listed firms that belonged to Construction and Allied. They made up 7.5% of the total respondent firms. The second last two groups belonged to Real estate investment and Energy/Petroleum industries at 2.5% each. In the study, there were no responses from Automobiles/Accessories and Telecommunication/Technology industries. The findings imply that the surveyed firms operate in diverse industries characterized by

dynamic environment and are able to manifest and inform the purpose of the study on dynamic capabilities, strategic orientation and firm innovation and how they help in the realization of competitive advantage.

4.5 Manifestation of the Study Variables

In this area, outlines are given around perceptions that have been made. The data appears what the information portray. The information is depicted and summarized in ways that give fundamental meaning and value utilizing the cruel, standard deviation, coefficient of variety and Z-scores. The clear insights offer fundamental data of the factors of the ponder and point out conceivable affiliations among factors. Each variable's measurement was depicted in arrange to appear the degree to which it showed itself within the recorded firm. Energetic capabilities develop was the free variable within the ponder and was measured utilizing its three measurements, specifically detecting capabilities, seizing capabilities and integration capabilities as put forward by Teece (2014).

Also, vital introduction was a directing variable in this inquire about consider having three measurements specifically: showcase introduction, inclining introduction and entrepreneurial introduction. Firm advancement as the intervening variable had item advancement, handle development and advertise development as its measurements. Competitive advantage as the subordinate variable was measures utilizing the capacity of the firms to have moo costs, separate their items, conveying esteem to the client, proficient frameworks and structures and a better vital showcase reaction as compared to their competitors. The outlines are given beneath different headings and talked about in subsections 4.5.1 to 4.5.4.

4.5.1 Dynamic Capabilities

Energetic capabilities have been depicted as the capacity to incorporate, create as well as adjust assets and competences that are in-house and those sourced remotely in arrange to address environment dynamism (Teece, 2014). In this case, firms which are able to recognize and abuse critical openings from reexamining, realigning, replicating, upgrading and reestablishing their resource base will choose up a competitive advantage (Duan, 2013). Energetic capabilities construct was the independent variable inside the think almost and was measured utilizing its three estimations, particularly Recognizing capabilities, Seizing Capabilities and Integration capabilities as put forward by Teece (2014). Presentation of Lively capabilities clarifications was done and was to be responded in line with how the sign happened on a Likert scale of 1 (None) to 5 (More than Exceptional degree). Respondents were depended with appearing the fittingness of the clarifications as well as the degree to firms they work.

4.5.1.1 Sensing Capabilities

Sensing capabilities play a vital role scanning the environment to distinguish favorable openings and potential dangers that may affect a firm's competitive advantage (Li & Liu, 2014). This capability can be seen in an organization's ability to recognize industry best practices, the effectiveness of anticipating market and competitive trends as well as evaluating the relevance of existing operational capabilities in order to improve or invest in new ones. Other important aspects of sensing capabilities are the fast detection of industry shifts and scanning of environment externally to identify profitable opportunities and combat competitor threats (Teece, 2014).

The study sought to determine the extent to which sensing capabilities attributes were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to sensing capabilities and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.9 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.9: Sensing Capabilities Attributes

Dynamic Capabilities						
Sensing Capabilities						
DC_SenC_6_We strive at recognizing best practices in our industry	3	5	4.23	0.584	14	1.344 -0.39 -2.124
DC_SenC_11_External sources give our firm knowledge about the industry and market trends	3	5	4.03	0.652	16	1.478 -0.038 -1.554
DC_SenC_8_Our firm observes and forecasts market and industry trends.	2	5	4	0.543	14	1.644 0.078 -1.488 -3.054
DC_SenC_2_We periodically review how environmental changes influence our operations	2	5	3.92	0.609	16	1.853 0.206 -1.441 -3.088
DC_SenC_4_We put our focus and monitor the changing operational capabilities in the industry	2	5	3.85	0.698	18	1.549 0.108 -1.333 -2.774
DC_SenC_3_We frequently review the quality of our operational capabilities and compare with the industry trends	2	5	3.81	0.743	20	1.297 0.091 -1.116 -2.323
DC_SenC_9_We are quick in understanding new opportunities for serving our customers better than our rivals.	2	5	3.79	0.704	19	1.596 0.293 -1.01 -2.313

DC_SenC_10_We frequently revise our activities of product development based on industry trends	2	5	3.79	0.75	20	1.715 0.396 -0.924 -2.243
DC_SenC_7_We quickly detect meaningful and fundamental shifts in the industry	2	5	3.69	0.667	18	1.951 0.532 -0.887 -2.306
DC_SenC_5_We participate in forums that review and deliberate on the changes in the business operational environment	2	5	3.68	0.719	20	1.728 0.494 -0.741 -1.975
DC_SenC_1_We regularly scan the environmental changes for identification of new business opportunities	2	5	3.52	0.593	17	2.214 0.632 -0.949 -2.532
Valid N (listwise)	40					
Overall Mean			**3.846**	**0.6602**		

Source: Research Data (2021)

The overall mean score of the statements depicting the manifestations of sensing capabilities was 3.846 and standard deviation 0.6602. This depicted an average manifestation of sensing capabilities among companies listed at NSE. The statement with highest mean was on the firm striving to recognize best practices in their respective industry (Mean=4.23 and SD=0.584). In this case, surveyed firms, to a great extent, understand that they can improve their routines by adopting best industry practices in order to outperform their competitors. This is an important element of sensing capabilities that result in a competitive advantage.

Other statements had an average mean of more than 3.5 and this implied that sensing capabilities were manifested in the surveyed firms to a greater extent. The statement; External sources give our firm knowledge about the industry and market trends (Mean=4.03 and SD=0.652) implied the surveyed firms obtained relevant information about the external environment from external sources to a great extent. This would enable them to react appropriately in the creation of products and offering of services.

Similarly, respondents agreed to a great extent that they their firms observe and forecast market and industry trends. (Mean=4.00 and SD=0.543). This implies that the surveyed firms had good surveillance and forecasting mechanisms that enabled them anticipate market trends and exploit the advantages that came with them. The statement equally had the lowest standard deviation which signals a stronger agreement amongst the respondents on their surveillance and forecasting capabilities.

The statement; we periodically review how environmental changes influence our operations (Mean=3.92 and SD=0.609) implies that the surveyed firms, to an average extent, monitor the external changes so that they can align their operations accordingly. The respondents equally agreed that they put focus and monitor the changing operational capabilities to an average extent (Mean=3.85 and SD=0.698). This means that the surveyed firms understand the importance of aligning themselves to industry changes in operation capabilities and is a fundamental aspect of sensing capabilities.

The statement; we are quick in understanding new opportunities for serving our customers better than our rivals (Mean=3.79 and SD=0.704). Surveyed firms in this case are able to

identify new opportunities of meeting their customer needs relative to competition to an average extent. Respondents, additionally, agreed that to an average extent, they frequently revise their activities of product development based on industry trends (Mean=3.79 and SD=0.750). However, the statement had the highest standard deviation amongst the responses of sensing capabilities manifestations. This implies that there were varied opinions on the review of product development efforts to meet industry trends.

Detecting fundamental shifts in the industry is an important element of sensing capabilities because the surveyed firms reside in distinct industries that influence their capability (Mean=3.85 and SD=0.698). The statement; we regularly scan the environmental changes for identification of new business opportunities had the lowest mean of 3.52 and standard deviation of 0.593. Despite having the lowest mean, respondents agreed that their firms scan the external environment in order to get profitable opportunities that will give them a competitive edge compared to their competitors.

There was less variability in the responses as seen from the coefficient of variations that ranged from 14% to 20%. Two statements had the lowest variability of 14%. The first one was on the firm striving to recognize best practices in their respective industry and the second statement was that the surveyed firms are very good in observing and anticipating market and customer trends. This implied that the respondents were in agreement on the importance of adopting best industry practices in order to outperform their competitors as well as having a good surveillance and forecasting mechanisms that enable firms anticipate market and consumer trends. On the other hand, three statements had the highest coefficient of variation of 20%. They were; We frequently review the quality of our operational

capabilities and compare with the industry trends; We frequently revise our activities of product development based on industry trends; We participate in forums that review and deliberate on the changes in the business operational environment. In the three cases, the respondents were not in agreement on the firms comparing their capabilities with the industry's or reviewing their efforts to match industry trends. Additionally, the respondents have varied views on the firm's commitment to participate in business forums to discuss industry trends.

Among the statements describing the manifestations of sensing capabilities, the statement; we regularly scan the environmental changes for identification of new business opportunities had the highest Z score of 2.214. This implies that the respondents strongly observed the importance of scanning environmental changes in describing sensing capabilities and hence the respondent values were greatly above the mean. This was followed by the statement that we quickly detect meaningful and fundamental shifts in the industry with a Z score of 1.951 indicating that it was the second most important statement in describing sensing capabilities. The high Z score shows that the respondents' values were greater than the mean. The statement that had the least Z score of -3.088 was; our firm periodically reviews how environmental changes influence our operations which indicates that the respondents did not agree on its manifestation in the surveyed listed firms.

4.5.1.2 Seizing Capabilities

Seizing capability enable the firm make strategic choices and investment decisions on externally sensed opportunities. It requires substantial commitment of resources to produce products that are of high value to both potential and current users (Peteraf *et al.*, 2013). seizing capabilities can be witnessed when the firms have employees having capabilities of implementing new strategies, flexible organizational structure that enables the firm to react promptly to market dynamics, changing practices in order to exploit new opportunities, budgeting for arising opportunities, responding to defects as and when reported by the customers and effectively analyzing strategic choices before deciding on a course of action.

The study sought to determine the extent to which seizing capabilities attributes were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to Seizing capabilities and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.10 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.10: Seizing Capabilities Attributes

Dynamic Capabilities						
Seizing Capabilities						
DC_SeiC_6_Our employees have the capabilities of implementing new strategies	3	5	4.11	0.655	15.937	1.402 -0.074 -1.55
DC_SeiC_10_We promptly respond to varied market dynamics due to our agile structures	2	5	4.11	0.655	15.937	1.34 -0.149 -1.637 -2.475
DC_SeiC_8_We possess and utilize the industry's readily available and existing information	3	5	4.08	0.635	15.564	1.573 -0.04 -1.654
DC_SeiC_2_We extensively commit time implementing strategies that will enable the exploitation of new opportunities	3	5	4.02	0.665	16.542	1.478 -0.038 -1.554
DC_SeiC_4_Our business actions are carefully interrelated in order to meet the changing conditions	3	5	4.02	0.64	15.92	1.35 -0.19 -1.736
DC_SeiC_13_We are fast in changing our practices in	3	5	4	0.601	15.025	1.747 0.122

Dynamic Capabilities						
order to exploit new opportunities						-1.503
DC_SeiC_7_Our firm is able to quicky and effectively utilize external knowledge like market trends	2	5	3.97	0.768	19.345	1.349 0.094 -1.161 -2.415
DC_SeiC_ 9_Our firm's well established formal systems help in the prompt circulation of new market information	2	5	3.97	0.746	18.791	1.485 0.165 -1.155 -2.475
DC_SeiC_5_We effectively and efficiently develop new knowledge that could impact our product development endeavors	3	5	3.97	0.677	17.053	1.47 0.07 -1.33
DC_SeiC_12_We promptly respond to defects pointed out by employees	3	5	3.94	0.597	15.152	1.759 0.084 -1.591
DC_SeiC_3_We set aside a budget and requisite resources for implementation of new courses of action	2	5	3.94	0.765	19.416	1.341 0.064 -1.214 -2.491
DC_SeiC_11_Our firms' capabilities for developing	2	5	3.69	0.616	16.694	2.084

Dynamic Capabilities						
new knowledge can impact the competitive position in the industry						0.595 -0.893 -2.382
DC_SeiC_1_We extensively analyze strategic choices before reaching an optimum alternative	3	5	3.69	0.561	15.203	**2.53** 0.656 -1.218
Valid N (listwise)	40					
Overall Mean			**3.962**	**0.66**		

Source: Research Data (2021)

The overall mean score of the statements showing the presence of seizing capabilities was 3.962 and standard deviation 0.660. This depicts an average manifestation of seizing capabilities among companies listed at NSE. The statement with highest mean was on the employees having the capabilities of implementing new strategies (Mean=4.11 and SD=0.655). This indicates that surveyed firms have qualified and competent employees needed in the implementation of new strategies. This will enable the firm gain a competitive advantage. The statement that had the least mean score was that we extensively analyze strategic choices before reaching at an optimum alternative (Mean=3.69 and SD=0.561) indicating less analysis of strategic choices before determine an optimum alternative. This was observed by many respondents and is seen in the lowest standard deviation amongst the responses concerning the manifestation of seizing capabilities.

Other statements had a mean of 4.0 indicating that these attributes are manifested to a great extent in the firms studied. It was observed that respondents from surveyed firms agreed that their flexible structures enable them to respond promptly to market dynamics to a great extent (Mean=4.11 and SD=0.655). The statement; we possess and utilize the industry's readily available and existing information had a mean of 4.08 and standard deviation of 0.635. This implies that surveyed firms understand the importance of having extensive information of the market and environment in making strategic choices.

Devotion of time in the implementation of strategies that will lead to exploitation of new opportunities was consented by the respondents to a great extent (Mean=4.02 and SD=0.665). This will enable the firm create value and thereby gain a competitive advantage. The statement; we are fast in changing our practices in order to exploit new opportunities (Mean=4.00 and SD=0.601) shows the commitment of the surveyed firms to seize new opportunities by revising their routines and practices. Similarly, respondents pointed out that to an average extent, they utilize external knowledge on market and customer trends very quickly (Mean=3.97 and SD=0.768). This indicates the effectiveness of translating external knowledge to actual actions that will create value to the firm. However, the statement had the highest standard deviation amongst the responses concerning the manifestation of seizing capabilities and this shows high variation of respondents' opinions.

Circulating information about market trends in order to decide on a strategic choice is important in seizing sensed opportunities. This was agreed by the respondents of the surveyed firms to an average extent (Mean=3.97 and SD=0.746). Part of seizing opportunities includes correcting defects pointed out by the employees in a timely manner. (Mean=3.94 and SD=0.597). This will not only enable the firm come up with better ways of producing defect free products but also meet customer expectations and thereby gain a competitive advantage. Budgeting and setting aside resources for arising opportunities depicts a firm's commitment to gaining a competitive advantage. The respondents pointed out its manifestation to an average extent in the surveyed firms (Mean=3.94 and SD=0.765). The statement; our firms' capabilities for developing new knowledge can impact the competitive position in the industry (Mean=3.69 and SD=0.616) implies that firms listed at NSE seize opportunities by employing their internal competences to influence their competitive position. These statements indicated that seizing capabilities are an important aspect of dynamic capabilities in attaining a competitive advantage.

There was less variability in the responses as seen from the coefficient of variations that ranged from 15.02% to 19.4%. The statement that had the lowest variability of 15.02 % was on; we are fast in changing our practices in order to exploit new opportunities. This implied that the respondents were in agreement on the surveyed firms' commitment to improving and changing practices in order to seize emerging opportunities. The statement with the most variability indicating varied opinions of the respondents was that the firms set aside a budget and requisite resources for implementation of new courses of action. The coefficient of variation in this case was 19.4%.

Among the statements describing the manifestations of seizing capabilities, the statement with the highest Z score (2.53) was on the firms extensively analyzing strategic choices before reaching an optimum alternative. This implies that the respondents strongly believed the importance of analyzing strategic choices in seizing opportunities and hence the respondent values were greatly above the mean. The statement with the least Z score of -2.491was on the firms setting aside a budget and requisite resources for implementation of new courses of action. This shows that the respondents did not agree on its manifestation in the surveyed listed firms.

4.5.1.3 Integration Capabilities

Integrating capabilities enable an organization to combine and synchronize information, assets and output from different individual units in order to produce organizational output that can be offered to final users. (Pavlou & El Sawy, 2011). This can be characterized by effective resource deployment, extensive understanding of staff responsibility, expertise-work process compatibility, resource recombination to better match product-market areas, integrating individual capabilities to become organizational capability as well as efficient integration of routines (Schilke, 2014; Turner *et al.,* 2013).

The study sought to determine the extent to which integration capabilities attributes were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to integration capabilities and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.11 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.11: Integration Capabilities Attributes

Dynamic Capabilities						
Integration Capabilities						
DC_IntC_2_ We possess better integration abilities than our rivals in the industry	2	5	4.03	0.724	17.965	1.396 0 -1.396 -2.793
DC_IntC_6_We are able to cope with unexpected circumstances like environmental changes	2	5	4.02	0.689	17.139	1.549 0.108 -1.333 -2.774
DC_IntC_10_The resource deployment in the organization is appropriate	2	5	4	0.701	17.525	1.398 0.034 -1.329 -2.693
DC_IntC_4_We are able to thoroughly understand the responsibility of each staff	3	5	4	0.701	17.525	1.469 0.036 -1.398
DC_IntC_5_The organization has a portfolio of relevant expertise and skills	3	5	3.93	0.704	17.913	1.637 0.149 -1.34

Dynamic Capabilities						
DC_IntC_11_Our expertise and work processes are compatible	3	5	3.92	0.66	16.837	1.739 0.158 -1.423
DC_IntC_12_We frequently recombine our resources and asset base for better alignment of products and markets	2	5	3.87	0.64	16.537	1.863 0.169 -1.524
DC_IntC_8_ We have superior integrating capability compared to competitors in the same market.	3	5	3.85	0.674	17.506	1.639 0.182 -1.275
DC_IntC_7_ Through communication and cooperation with workers in many departments, we are able to achieve great results.	2	5	3.85	0.743	19.299	1.573 0.234 -1.104 -2.774
DC_IntC_9_Our output is synchronized with the output generated by other staff	3	5	3.82	0.713	18.665	1.659 0.277 -1.106
DC_IntC_3_ We have the ability to combine the	3	5	3.79	0.577	15.224	2.124 0.39

Dynamic Capabilities						
strengths of many into a unified whole.						-1.344
DC_IntC_1_There is Efficient integration of routines in my company	2	5	3.66	0.626	17.104	2.111 0.63 -0.852 -2.333
Valid N (listwise)	40					
Overall Mean			**3.9**	**0.679**		
Grand Mean			**3.903**	**0.666**		

Source: Research Data (2021)

The general mean score of the attributes of integrating capabilities was 3.90 and standard deviation 0.679. This indicated average opinions among companies listed at the NSE on attributes of integrating capabilities. The statement with highest mean was; we possess better integration abilities than our rivals in the industry (Mean=4.03 and SD=0.724). This implies that, to a great extent, firms listed at NSE are able to effectively incorporate newly sourced capabilities with the existing capabilities. In this case, the creation of products or services is not hampered as a result of new information from the environment. Despite the statement; there is efficient integration of routines in my company having the lowest mean score amongst the responses on integration capabilities (Mean=3.66 and SD=0.626), it is evident that integration of routines is present to an average extent. This ensures efficiency in delivering value to the firm.

The statement had the lowest standard deviation indicating lower variations in the opinions of respondents on the presence of integration of routines. Other statements showing a great extent of manifestation of integration capabilities had a mean of 4.0. For instance, it was observed that the surveyed firms had effective coping mechanisms of unexpected circumstances like environmental changes (Mean=4.02 and SD=0.689), this is because of their strong integration capabilities that enable them to adopt quickly to these unexpected changes. The surveyed firms similarly deploy their resources appropriately to a great extent (Mean=4.00 and SD=0.701). This can be explained by their ability to match emerging resource requirements with the existing ones. Coordination of staff is important in integration. This was supported by the respondents' rating of the manifestation of staff coordination in their firms (Mean=4.00 and SD=0.701).

The statements that had means of 3.0 indicated that the attributes were manifested to an average extent. To an average, the organizations had portfolio of relevant expertise and skills (Mean=3.93 and SD=0.704). Skills and expertise are important in finding the best mix of resources that will enable the firm create products of value in an efficient manner. The statement; our expertise and work processes are compatible (Mean=3.92 and SD=0.660) indicates an effective integration. This helps the firm in responding to market as well as industry changes in a prompt manner and therefore acquire a competitive advantage. The respondents of the surveyed firms agreed to an average extent the presence of resource recombination to effectively match product and market requirements (Mean=3.87 and SD=0.640). This is an important aspect of integration

capability as it will ensure that resources are utilized efficiently to meet market demands in a timely manner.

Collaboration with staff from other divisions in creating a multifaceted product is essential for attaining a competitive advantage. The respondents agreed to an average extent the presence of this collaboration aspect (Mean=3.85 and SD=0.743). However, this statement had the highest standard deviation amongst the responses on the manifestation of integration capabilities. This implies the existence of varied opinions on the presence of staff collaboration aspect. Similarly, the output from other divisions are easily synchronized with the output generated by other staff to an average extent (Mean=3.82 and SD=0.713). This depicts the firms' strength in integrating output from various points in creating a final product. Integrating individual capabilities to become organizational capability is important for an organization to an average extent as rated by respondents of the surveyed firms (Mean=3.79 and SD=0.577).

There was less variability in the responses as seen from the coefficient of variations that ranged from 15.22% to 19.3%. The statement that had the lowest variability of 15.22 % was on the ability of surveyed firms to integrate individual capabilities to form organizational capability which indicates the importance of integration in deploying dynamic capabilities. This statement equally had the highest Z score of 2.124 showing its positive and great acceptance by the respondents in describing the manifestation of integration capabilities in the surveyed listed firms The statement with the highest coefficient of variation of 19.3% shows diverse views of respondents in the ability of surveyed firms to succeed in interacting and collaborating with staff from other divisions.

Among the statements describing the manifestations of integration capabilities, the statement with the lowest Z score (-2.793) was on comparison of surveyed firms' integration capabilities with other companies in the same industry. This showed that the respondents did not perceive greater integration capabilities in comparison with other players in the market and hence lower than mean values.

4.5.1.4 Summary of Dynamic Capabilities Attributes

A summary of the descriptive statistics on dynamic capabilities attributes as manifested in various companies listed at the NSE was essential to the study. These were the summaries on sensing, seizing and integration capabilities. The results of the findings in terms of mean scores as well as standard deviation are presented in Table 4.12.

Table 4.12: Summary of Dynamic Capabilities Attributes

Dynamic Capabilities Attributes	N	Mean	Std. Deviation
Sensing capabilities	**40**	3.846	0.660
Seizing capabilities	**40**	3.962	0.660
Integration capabilities	**40**	3.903	0.666

Source: Field Data (2021)

The summary on dynamic capabilities measures showed that seizing capabilities attributes had a high mean score (Mean=3.962 and SD=0.660) followed by integration capabilities attributes (Mean=3.903 and SD=0.666). The least manifested attributes were those of sensing capabilities (Mean=3.846 and SD=0.660). This implied that listed firms at NSE

understand the importance of making strategic choices amongst the alternatives in order for the organization to explore advantages from external opportunities as well as neutralize the threats.

4.5.2 Strategic Orientation

Strategic orientation as an essential concept in management research has been found to enable firms create behaviors and guide the direction managers take in responding to various external stimuli in their respective industries (Pehrsson, 2016). Balodi (2014) observed that strategic orientation of a firm comprises of market orientation, leaning orientation and entrepreneurial orientation. A firm that is market oriented ensures that the customers get value and their feedback taken into consideration. This is aimed at satisfying them so that they can be loyal to the firm. The firm also ensures that it has information about its competitors in order to craft strategies that will help them gain competitive advantage (Hakala & Kohtamäki, 2011). Entrepreneurial orientation is a key element of strategic orientation as it emphasizes on the need for firms to be market leaders and implementing strategies that the competitors will react to (Kamboj & Rahman, 2017). Learning orientation shows the importance of systematic knowledge acquisition and transfer and sharing ideas and knowledge amongst the employees. (Jamil & Lodhi, 2015). In this case, the top management should be committed to learning processes and emphasize on working teams in order to carry out their work successfully.

Vital Introduction was a directing variable in this investigate ponder having three (3) measurements specifically: advertise introduction, inclining introduction and

entrepreneurial introduction. Introduction of vital introduction articulations was done and was to be reacted in line with how the sign happened on a Likert scale of 1 (None) to 5 (More than Extraordinary degree). Respondents were entrusted with showing the pertinence of the explanations as well as the degree to firms they work.

4.5.2.1 Market Orientation Attributes

The study sought to determine the respondents' level of agreement on market orientation attributes. These included firm's focus of realizing customer satisfaction and creating greater customer value while emphasizing on excellent customer service. Additionally, monitoring the workings of the competitors in order to craft strategies of outperforming them is an important aspect of market orientation.

The study sought to determine the extent to which market orientation factors were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to market orientation manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.13 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.13: Market Orientation Attributes

Strategic Orientation						
Market Orientation						
SO_MktOr_3_We constantly review our focus on realizing customer satisfaction	2	5	4.03	0.724	17.9653	1.211 -0.173 -1.556
SO_MktOr_2_We craft strategies that will result in creating greater value for our customers	3	5	4.03	0.511	12.6799	1.76 -0.143 -2.045
SO_MktOr_4_We put emphasis on excellent customer service	3	5	3.98	0.614	15.4271	1.777 0.043 -1.69
SO_MktOr_5_Our customers provide us with frequent feedback on their satisfaction levels from consuming our products or services	2	5	3.95	0.734	18.5823	1.401 0.067 -1.268 -2.602
SO_MktOr_8_We analyze our competitors' strategies regularly	2	5	3.92	0.685	17.4745	1.485 0.165 -1.155 -2.475
SO_MktOr_6_We strive at having the same strengths as our competitors	3	5	3.9	0.718	18.4103	1.639 0.182 -1.275

SO_MktOr_7_Understanding of competitors operations help us in crafting our own strategies in the market	3	5	3.87	0.665	17.1835	1.644 0.078 -1.488
SO_MktOr_9_We regularly share information throughout the firm concerning latest competitors	2	5	3.82	0.779	20.3927	1.699 0.366 -0.966 -2.298
SO_MktOr_1_Our primary goal is to satisfy all customers	3	5	3.79	0.631	16.6491	1.975 0.329 -1.317
Valid N (listwise)=40						
Overall Mean			**3.921111**	**0.673444**		

Source: Research Data (2021)

The overall mean score of the attributes of market orientation was 3.921 and standard deviation 0.6734. This indicated average opinions among companies listed at the NSE on attributes of market orientation. The statement with highest mean was; we constantly review our focus on realizing customer satisfaction (Mean=4.03 and SD=0.724). This implies that to a great extent firms listed the NSE understands the importance of satisfying their customers for competitive advantage purposes. Despite the statement; our primary goal is to satisfy all customers having the least mean score of 3.79 with a standard deviation of 0.631, it is evident that firms' goals of satisfying customers are important in the attainment of competitive advantage to an average extent. The respondents pointed out

that their respective firms craft strategies geared towards the creation of a greater value for customers (Mean=4.03 and SD=0.511). This implies that, to a great extent, the surveyed firms take their customers' needs into consideration when formulating strategies that will be implemented for gaining competitive advantage.

Additionally, the respondents' opinions on this element of market orientation were the least varied as shown by the lowest standard deviation (0.511). Excellent customer service breeds customer loyalty and this was supported by the respondents to an average extent (Mean=3.98 and SD=0.614). Similarly, getting feedback from customers as to whether they were satisfied after consuming the firm's products or services informs future decisions about the product or service (Mean=3.95 and SD=0.734). Competitor focus is an element of market orientation. Respondents from the surveyed firms concurred with the statement of regular analysis of competitor strategies to an average extent (Mean=3.92 and SD=0.685). This implies that firms can only outperform their competitors in the market by understanding their strategies and coming up with countermeasures.

Surveyed firms also went further to understand their competitors' operations in order to craft appropriate strategies as indicated by an average mean of 3.87 with a standard deviation of 0.665. Sharing information regarding competitors within the firm enables the employees brainstorm on effective ways of beating competition (Mean=3.82 and SD=0.779). However, respondents had varied opinions on this statement and hence the highest standard deviation amongst the responses of the manifestation of market orientation. There was less variability in the responses as seen from the coefficient of

variations that ranged from 12.68% to 20.39%. The statement that had the lowest variability of 12.68 % was on firm's craft strategies that create a greater value for their customers which depicts a consensus of respondents' opinions on the need to take customers' needs into consideration when formulating strategies that will be implemented for gaining competitive advantage.

The statement with the highest coefficient of variation of 20.39% shows diverse views of respondents and was on sharing information regarding competitors within the firm. Among the statements describing the manifestations of market orientation, the statement with the lowest Z score (-2.602) was on frequently obtaining feedback from customers about their level of satisfaction to inform future decisions about the product or service. This showed that the respondents did not perceive that the firms obtained feedback to a greater extent and hence the values were lower than mean value. The statement with the highest Z score (1.975) was that the primary goal of the surveyed firm is to satisfy all customers showing its positive and great acceptance by the respondents in showing the manifestation of market orientation attribute.

4.5.2.2 Entrepreneurial Orientation Attributes

The study sought to determine the respondents' level of agreement on entrepreneurial orientation attributes. This orientation enables the firm to be market leaders, implementing strategies that their competitors will react to, identify new markets, be proactive and autonomous in all operations. The study sought to determine the extent to which

entrepreneurial orientation factors were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to entrepreneurial orientation factors and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.14 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.14: Entrepreneurial Orientation Attributes

Strategic Orientation						
Entrepreneurial Orientation						
SO_EntOr_9_We implement strategies that our competitors often react to	3	5	3.92	0.753	19.2092	1.573 0.234 -1.104
SO_EntOr_5_The top leadership emphasizes risk taking in all aspects of operations	3	5	3.89	0.655	16.8381	1.736 0.193 -1.35
SO_EntOr_7_Our actions render the competitors in the market followers and not leaders	2	5	3.84	0.706	18.3854	1.878 0.405 -1.068 -2.541
SO_EntOr_6_We strive at identifying and operating in new markets before our competitors	3	5	3.82	0.666	17.4346	1.55 0.074 -1.402
SO_EntOr_8_We move faster than our competitors in offering new products, services or procedures	3	5	3.77	0.584	15.4907	2.124 0.39 -1.344

Table 4.14 Cont'd…

Strategic Orientation						
SO_EntOr_3_Employees in the organization are risk takers	2	5	3.77	0.798	21.1671	1.715 0.396 -0.924 -2.243
SO_EntOr_4_The organization believes that taking risks will ensure the attainment of strategic goals	3	5	3.76	0.592	15.7447	2.302 0.46 -1.381
SO_EntOr_2_Our firm has extensively changed or improved the product groups during the past five years	2	5	3.69	0.642	17.3984	1.992 0.43 -1.133 -2.695
SO_EntOr_1_Our firm invests highly in R&D	3	5	3.65	0.603	16.5206	2.153 0.528 -1.097
Valid N (listwise)=40						
Overall Mean			**3.79**	**0.66656**		

Source: Research Data (2021)

The overall mean score of the attributes of entrepreneurial orientation was 3.79 and standard deviation 0.6666. This indicated average opinions among companies listed at the

NSE on attributes of entrepreneurial orientation. The statement with highest mean was; we implement strategies that our competitors often react to (Mean=3.92 and SD=0.753). This implies that, to a great extent, firms listed at NSE understand the importance of being ahead in implementing strategies for achieving competitive advantage. Despite the statement; our firm invests highly in R&D having the lowest mean score of 3.65 with a standard deviation of 0.603, it is evident that, to an average extent, companies listed at Nairobi exchange invest in research and development which is an important aspect of entrepreneurial orientation. The respondents pointed out that top leadership emphasizes risk taking in all aspects of operations to an average extent (Mean=3.89 and SD=0.655).

This implies that the top leadership is inculcating risk taking culture in the organization. The respondents concurred to an average extent that their firms' actions render the competitors market followers. This implies that the firms strive at being the first in the market in offering products. Similarly, surveyed firms strive at identifying, operating as well occupying new territories before the competitors (Mean=3.82 and SD=0.666). The statement; we move faster than our competitors in offering new products, services or procedures (Mean=3.77 and SD=0.584) implies that the firms are entrepreneurial in offering new products and adopting new procedures as compared to their competitors. The responses indicate that there is manifestation of entrepreneurial orientation traits in companies listed at NSE.

There was less changeability within the reactions as seen from the coefficient of varieties that extended from 15.49% to 21.17%. The explanation that had the least inconstancy of 15.49 % was on firm's being ahead of the competition in showing modern items or methods and portrays a agreement of respondents' opinions on the got to be ahead of the rivals in arrange to pick up a competitive advantage. The articulation with the most noteworthy coefficient of variety of 21.17% appears differing sees of respondents and was on overviewed firms' representatives being chance takes. Among the statements describing the manifestations of entrepreneurial orientation, the statement with the lowest Z score (-2.695) was on the surveyed firms extensively changing or improving the product groups in the past five years. This showed that the respondents did not perceive that the firms had greatly improved the product groups and hence the values were lower than mean value. The statement with the highest Z score (2.153) was that the surveyed firms invested in research and development showing its positive and great acceptance by the respondents in showing the manifestation of entrepreneurial orientation attribute.

4.5.2.3 Learning orientation Attributes

The study sought to determine the respondents' level of agreement on learning orientation attributes. This is characterized by systematic knowledge acquisition and transfer, sharing of ideas amongst employees, having working teams in the firm, robust organizational processes and having clear learning goals. The study sought to determine the extent to which learning orientation factors were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to learning orientation factors and manifestation in the firms. The Likert-type scale

of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.15 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.15: Learning Orientation Attributes

Strategic Orientation						
Learning Orientation						
SO_LrnOr_5_Systematic knowledge acquisition and transfer	3	5	4.03	0.701	17.3945	1.331 0 -1.331
SO_LrnOr_12_our employees have learned to share their ideas and knowledge	2	5	3.94	0.698	17.7157	1.556 0.173 -1.211 -2.594
SO_LrnOr_6_There are elaborate working teams in the organization	3	5	3.87	0.64	16.5375	1.853 0.206 -1.441
SO_LrnOr_4_Existence of organized processes for internal learning	2	5	3.87	0.689	17.8036	1.756 0.323 -1.111 -2.545
SO_LrnOr_2_The top management are committed to organizational learning processes	3	5	3.85	0.623	16.1818	1.977 0.363 -1.251

Strategic Orientation						
SO_LrnOr_7_Our firm put emphasis on learning from experience	3	5	3.85	0.623	16.1818	2.125 0.425 -1.275
SO_LrnOr_10_Our employees constantly share ideas for the achievement of new products or services	3	5	3.82	0.666	17.4346	1.643 0.214 -1.215
SO_LrnOr_3_It is our firm's norm for employees to exchange ideas amongst themselves	2	5	3.81	0.721	18.9239	2.039 0.529 -0.982 -2.492
SO_LrnOr_9_Our employees' capability to collaborate on diagnosing problems and exchange problem-solving ideas is high	2	5	3.79	0.681	17.9683	1.91 0.468 -0.973 -2.414
SO_LrnOr_8_Our employees are encouraged to share information amongst themselves	2	5	3.76	0.74	19.6809	1.715 0.396 -0.924 -2.243
SO_LrnOr_11_our employees share their	2	5	3.76	0.67	17.8192	1.929 0.5

Strategic Orientation						
experiences for carrying out new projects or initiatives successfully						-0.929 -2.358
SO_LrnOr_1_There are clear learning goals in the organization	3	5	3.6	0.586	16.2778	2.593 0.773 -1.046
Valid N (listwise)=40						
Overall Mean			**3.83**	**0.67**		
Grand Mean			**3.85**	**0.67**		

Source: Research Data (2021)

The overall mean score of the attributes of learning orientation was 3.83 and standard deviation 0.67. This depicted a manifestation of attributes of learning orientation among companies listed at NSE at an average extent. The statement with highest mean was; There is systematic knowledge acquisition and transfer in our firm (Mean=4.03 and SD=0.701). This implies that to a great extent, firms listed the NSE has set up systems that ensures that knowledge is obtained and disseminated systematically to all departments and individuals. This is essential in the in attainment of competitive advantage. Despite the statement; There are clear learning goals in the organization having the lowest mean score of 3.6 with a standard deviation of 0.586, it is evident that to an average extent, companies listed at NSE have clear learning goals which guide in the activities and processes of

acquiring and sharing of ideas in the organization and is an important aspect of learning orientation.

The statement also had the lowest standard deviation amongst the responses on the manifestation of learning orientation attributes signaling least varied opinions by the respondents on existence of clear learning goals in the organization. In other statements, the respondents agreed to an average extent their existence in the firms. For instance, the employees have embraced the sharing of ideas as well as knowledge (Mean=3.94 and SD=0.698). This implies that employees benefit from shared ideas and knowledge which improves their productivity. The existence of elaborate working teams to an average extent makes learning easier for employees and thereby improves their productivity (Mean=3.87 and SD=0.64). The respondents further agreed on the existence of organized processes of internal learning to an average extent in their respective firms (Mean=3.94 and SD=0.689).

This implies that the firms effectively coordinate internal learning across the functions. In addition, the top management of the surveyed firms are committed to organizational learning processes to an average extent (Mean=3.94 and SD=0.698). This is fundamental in institutionalizing the learning culture. There was less variability in the responses as seen from the coefficient of variations that ranged from 16.18% to 19.68%. Two statements that had the lowest variability of 16.18% were on surveyed firms putting emphasis on learning from experience and the top management being committed to the learning processes and depict a consensus of respondents' opinions.

The statement with the highest coefficient of variation of 19.68% shows diverse views of respondents and was on surveyed firms' employees being encouraged to share information amongst each other. Among the statements describing the manifestations of learning orientation, the statement with the lowest Z score (-2.545) was on the presence of organized processes for internal learning. This showed that some of the respondents did not perceive that the firms had organized processes to aid in internal learning and hence the values were lower than mean value. The statement with the highest Z score (2.593) was that the surveyed firms had clear learning goals showing its positive and great acceptance by the respondents in showing the manifestation of learning orientation attribute.

4.5.2.4 Summary of Strategic Orientation Attributes

A summary of the descriptive statistics on strategic orientation attributes as manifested in various companies listed at the NSE is provided. These were the summaries on market entrepreneurial and learning orientations. The results of the findings in terms of mean scores and standard deviation are shown in Table 4.16.

Table 4.16: Summary of Strategic Orientation Attributes

Strategic Orientation Attributes	N	Mean	Std. Deviation
Market Orientation	**40**	3.92	0.6734
Entrepreneurial Orientation	**40**	3.79	0.6666
Learning Orientation	**40**	3.83	0.6700

Source: Research Data (2021)

The summary on strategic orientation measures showed that market orientation attributes had a high mean score (Mean=3.92 and SD=0.6734) followed by learning orientation attributes (Mean=3.83 and SD=0.6700). The least manifested attributes were those of entrepreneurial orientation (Mean=3.79 and SD=0.6666). This implied that companies listed at the NSE focus satisfying customers while monitoring their competitors keenly in order to craft strategies that enable them to attain a competitive advantage. Similarly, companies listed at the NSE understand the importance of constituting learning mechanisms that encourage knowledge sharing amongst organization employees. Despite the mean of entrepreneurial orientation being the lowest amongst the dimensions of strategic orientation, companies listed at the NSE, to an average extent, are proactive and practice autonomy in terms of implementing strategies that have not been adopted by the competitors.

4.5.3 Firm Innovation

Firm innovation is an essential concept in management research for achieving a competitive advantage. It entails formation of new products, processes, procedures and markets to enable a firm outperform its competitors in a given industry (Osamu, 2015). In this study, firm innovation encompasses product innovation, process innovation and market innovation.

4.5.3.1 Product Innovation Attributes

The study sought to determine the respondents' level of agreement on product innovation attributes. This was characterized by development of new products, reconfiguring of

resources in creation of productive assets, and the promotion of product innovative culture by the top management. The study sought to determine the extent to which product innovation elements were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to product innovation factors and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.17 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.17: Product Innovation Attributes

Firm Innovation	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation	Z Scores
Product Innovation						
FrmIn_PrdInn_8_We create new productive assets from the successful reconfiguration of resources	3	5	3.98	0.689	17.3116	1.4 0.03 -1.33
FrmIn_PrdInn_6_Our firm emphasizes high speed of development of new products/services	2	5	3.98	0.64	16.0804	1.64 0.15 -1.34 -2.83
FrmIn_PrdInn_3_Our firm encourages and motivates employee's creativity in development of new products	2	5	3.97	0.626	15.7683	1.74 0.16 -1.42 -3
FrmIn_PrdInn_2_We are more technologically endowed than our competitors	2	5	3.97	0.6	15.1134	1.65 0.04 -1.57 -3.19
FrmIn_PrdInn_9_There is continuous identification of valuable resources and competences that can be combined in new ways	3	5	3.9	0.694	17.7949	1.64 0.18 -1.27

Firm Innovation	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation	Z Scores
FrmIn_PrdInn_4_Our firm utilizes the latest technological innovations in the production of products or services	3	5	3.9	0.646	16.5641	1.74 0.23 -1.28
FrmIn_PrdInn_5_There is a higher degree of newness in our firm's products or services	3	5	3.84	0.682	17.7604	1.98 0.36 -1.25
FrmIn_PrdInn_7_The number of new products or services introduced by our firm to the market is high	2	5	3.71	0.663	17.8706	2.14 0.49 -1.15 -2.8
FrmIn_PrdInn_1_There is promotion of product innovative culture by the top management	2	5	3.55	0.67	18.8732	0.88 -0.79 -2.46
Valid N (listwise)=40						
Overall Mean			**3.867**	**0.657**		

Source: Research Data (2021)

The overall mean score of the attributes of product innovation was 3.867 and standard deviation 0.657. This depicted a manifestation of attributes of product innovation among companies listed at the NSE at an average extent. The statement with highest mean was;

we create new productive assets from the successful reconfiguration of resources (Mean=3.98 and SD=0.689). This implies that to an average extent, firms listed the NSE utilize their resources in creating new productive assets that will lead to competitive advantage.

Similarly, surveyed firms recognize the need for developing new products and or services speedily as seen in the second highest rated statement (Mean=3.98 and SD=0.64). Employees are equally encouraged and motivated to be creative during product development (Mean=3.97 and SD=0.626). A higher technological resource endowment than the competitors is essential for the creation of new products in order to obtain a competitive advantage as seen in the statement with a mean of 3.97 and standard deviation 0.6.

This statement had the lowest standard deviation amongst the responses on the manifestation of product innovation attributes signaling least varied opinions by the respondents regarding the technological endowment of firms when compared with the industry rivals. The statement that there is a continuous identification of valuable resources and competences that can be combined in new ways had at the highest standard deviation which shows varied opinions amongst respondents on its presence in the organization (Mean=3.97 and SD=0.6). Despite the statement; There is promotion of product innovative culture by the top management having the lowest mean of 3.55 with a standard deviation of 0.67, it is evident that to an average extent, the top managers of companies listed at Nairobi exchange promotes an innovative culture in their organizations and strive at instituting it which is an important component of product innovation.

There was less variability in the responses as seen from the coefficient of variations that ranged from 15.11% to 18.87%. The statement that had the lowest variability of 15.11% were on surveyed firms being more technologically endowed than their rivals and depicts less varied views by respondents. The statement equally had the lowest Z score of -3.19. The statement with the highest coefficient of variation of 18.87% shows diverse views of respondents and was on the existence of promotion of product innovative culture by the top management. Among the statements describing the manifestations of product innovation the statement with the highest Z score (2.14) was that the surveyed firms had introduced high number of products and services in the market showing its positive and great acceptance by the respondents in depicting the manifestation of product innovation attribute.

4.5.3.2 Process Innovation Attributes

The study sought to determine the respondents' level of agreement on process innovation attributes. This characterized by transformation of existing processes, introduction of new processes, improvement of systems, extensive business innovation programmes and the use of technological innovations in the firms' processes. The study sought to determine the extent to which process innovation elements were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to process innovation factors and manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.18 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores. .

Table 4.18: Process Innovation Attributes

Firm Innovation	Minimum	Maximum	Mean	Std. Deviation	CV	Z Scores
Process Innovation						
FrmIn_PrcsInn_8 There is transformation of existing resources into new capabilities like new service delivery system at our firm	2	5	4.06	0.885	21.798	1.407 0.098 -1.21 -2.519
FrmIn_PrcsInn_2_Our firm introduces new service delivery methods frequently	2	5	4	0.678	16.95	1.47 0.04 -1.4 -2.83
FrmIn_PrcsInn_6_Our firm emphasizes high technological competitiveness in all processes	2	5	4	0.678	16.95	1.396 0 -1.396 -2.793
FrmIn_PrcsInn_10_There are introduced new changes that are unique from existing processes at our firm	2	5	3.97	0.768	19.3451	1.349 0.094 -1.161 -2.415
FrmIn_PrcsInn_3_Our product delivery systems are technologically enabled	2	5	3.92	0.708	18.0612	1.56 0.17 -1.21 -2.59
FrmIn_PrcsInn_4_Our firm has extensive business innovation programmes	3	5	3.89	0.68	17.4807	1.549 0.108 -1.333
FrmIn_PrcsInn_1_There is extensive use of information technologies e.g. online presence at our firm	3	5	3.84	0.486	12.6563	2.53 0.51 -1.52

FrmIn_PrcsInn_9_There are substantially renewed business processes	3	5	3.84	0.632	16.4583	1.975 0.329 -1.317
FrmIn_PrcsInn_5_Our firm use recent technological innovations in our processes	1	5	3.82	0.736	19.267	1.562 0.337 -0.888 -3.339
FrmIn_PrcsInn_7_The rate of change in our technical and technological methodologies is high	2	5	3.77	0.734	19.4695	1.684 0.337 -1.01 -2.357
Valid N (listwise)=40						
Overall Mean			**3.911**	**0.699**		

Source: Research Data (2021)

The overall mean score of the attributes of process innovation was 3.91 and standard deviation 0.699. This depicted a manifestation of attributes of process innovation among companies listed at the NSE at an average extent. The statement with highest mean was; There is transformation of existing resources into new processes like new service delivery system (Mean=4.06 and SD=0.885). This implies that to a great extent, firms listed the NSE strive at coming up with new processes that ensures efficiency. However, the statement had the highest standard deviation amongst process innovation attributes. This indicates that the respondents' opinions on the presence of transformation of existing resources in to new processes were highly varied.

Similarly, surveyed firms introduce new service delivery methods in order to obtain a competitive edge in the industry (Mean=4.00 and SD=0.678). It was also found that companies listed at the NSE emphasize high technological competitiveness in all processes (Mean=4.00 and SD=0.678). This implies that the surveyed firms, to a great extent, monitor the effectiveness of their processes while adopting new ways of doing things in order to be on top of competition in the marketplace. Surveyed firms introduced new changes that were unique from existing processes to an average extent (Mean=3.97 and SD=0.768).

This implies that these firms strive improving the existing processes so as to increase efficiency and thereby gain a competitive advantage. The respondents similarly agreed to an average extent that their delivery systems are technologically enabled (Mean=3.92 and SD=0.708). The statement; there is extensive use of information technologies e.g. online presence (Mean=3.84 and SD=0.486) had the lowest standard deviation amongst process innovation attributes.

This implies that the respondents' opinions on the utilization of information technologies in their firms in their processes were less varied. Despite the statement on the high rate of change in technological methodologies having the lowest mean score of 3.77 with a standard deviation of 0.734, companies listed at Nairobi exchange, to an average extent invest in new and better technological methodologies. This is an important component of process innovation.

There was less variability in the responses as seen from the coefficient of variations that ranged from 12.65% to 21.79%. The statement that had the lowest variability of 12.65% was on surveyed firms extensive use of technologies like online presence and depicts a consensus of respondents' opinions. The statement equally had the largest Z score of 2.53) showing its positive and great acceptance by the respondents in showing the manifestation of process innovation. The statement with the highest coefficient of variation of 21.79% shows diverse views of respondents and was on the presence of new service delivery systems in the surveyed firms. Among the statements describing the manifestations of process innovation, the statement with the lowest Z score (-3.339) was on surveyed firms using the latest technological innovations in their processes. This showed that some of the respondents did not perceive that the firms were using the latest technological innovations in their processes and hence the values were lower than mean value.

4.5.3.3 Market Innovation Attributes

The study sought to determine the respondents' level of agreement on market innovation attributes. This is characterized by creation of new markets, entering into new markets, introduction of new marketing strategies and expanding market demographics. The study sought to determine the extent to which market innovation elements were manifested among the surveyed firms. To capture this data, the respondents were tasked with indicating as well as the rating statements that relate to market innovation factors and

manifestation in the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.19 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.19: Market Innovation Attributes

Firm Innovation	Minimum	Maximum	Mean	Std. Deviation	Cofficient of Variation	Z Scores
Market Innovation						
FrmIn_MktInn_6_ We undertake aggressive anti competitors marketing campaigns	3	5	4.03	0.6	14.8883	1.69 -0.043 -1.777
FrmIn_MktInn_10_The firm marketing results in customer satisfaction and retention	2	5	3.98	0.713	17.9146	1.549 0.108 -1.333 -2.774
FrmIn_MktInn_8_The firm continuously enter into new emerging markets	2	5	3.97	0.768	19.3451	1.27 -0.033 -1.335 -2.638
FrmIn_MktInn_3_The company create value through pricing	3	5	3.95	0.638	16.1519	1.639 0.114 -1.41
FrmIn_MktInn_4_There is introduction of new marketing approaches for instance online marketing at our firm	2	5	3.94	0.721	18.2995	1.472 0 -1.472 -2.944

Firm Innovation	Minimum	Maximum	Mean	Std. Deviation	Cofficient of Variation	Z Scores
FrmIn_MktInn_2_The firm uses of various media channels to market its products	2	5	3.92	0.66	16.8367	1.637 0.149 -1.34 -2.828
FrmIn_MktInn_5_The firm emphasizes on increasing market demographics	3	5	3.85	0.698	18.1299	1.485 0.165 -1.155
FrmIn_MktInn_9_The firm manages to deliver customers' orders using agile systems	2	5	3.84	0.729	18.9844	1.596 0.293 -1.01 -2.638
FrmIn_MktInn_7_The firm addresses customers' suggestions or complaints urgently and informs decisions regarding new markets	2	5	3.77	0.688	18.2493	1.768 0.354 -1.061 -2.475
FrmIn_MktInn_1_Our firm emphasizes on new marketing techniques	2	5	3.65	0.63	17.2603	2.305 0.742 -0.82 -2.383
Valid N (listwise)=40						
Overall Mean			**3.89**	**0.6845**		
Grand Mean			**3.89**	**0.68**		

Source: Research Data (2021)

The overall mean score of the attributes of market innovation was 3.89 and standard deviation 0.6845. This depicted a manifestation of attributes of market innovation among companies listed at the NSE at an average extent. The statement with highest mean was; we undertake aggressive anti-competitors marketing campaigns (Mean=4.03 and SD=0.6). This implies that to a great extent, firms listed the NSE strive at capturing new market niches that are being controlled by their competitors by using intense marketing campaigns.

This is enables them to increase their market territories while defending their current market share.

In addition, the statement had the least standard deviation amongst market innovation attributes signaling less varied opinions of the respondents on its manifestation. Similarly, surveyed firms' marketing results in customer satisfaction and retention to an average extent (Mean=3.98 and SD=0.713). This implies that firms use extensive marketing as a market innovation tool to attract new customers. It was also found that companies listed at the NSE continuously enter into new emerging markets to an average extent (Mean=3.97 and SD=0.768). Creating and entering new markets is an important aspect of market innovation as it will expand the firm's market share and create a competitive advantage.

However, the statement had the highest standard deviation amongst market innovation attributes signaling very high varied opinions of the respondents on its manifestation In another statement, the surveyed firms emphasize on increasing market demographics (Mean=3.85 and SD=0.698). This implies that the firms understand the need to expand their customer base for a competitive advantage. Despite the statement; our firm emphasizes on new marketing techniques having a low mean score of 3.65 with a standard deviation of 0.63, companies listed at Nairobi exchange, to an average extent understand that new marketing techniques enable the firm create new markets for competitive advantage. This is an important component of market innovation.

There was less variability in the responses as seen from the coefficient of variations that ranged from 14.88% to 19.34%. The statement that had the lowest variability of 14.88% was on the presence of aggressive anti competitors marketing campaigns and depicts a consensus of respondents' opinions. The statement with the highest coefficient of variation of 19.34% shows diverse views of respondents and was on the surveyed firms entering into new and emerging markets. Among the statements describing the manifestations of market innovation, the statement with the lowest Z score (-2.944) was on surveyed firms using new marketing approaches like online marketing. This showed that some of the respondents did not perceive that the firms were using new marketing approaches and hence the values were lower than mean value. The statement that had the largest Z score of 2.305 was on the firms emphasizing the use of new marketing techniques showing its positive and great acceptance by the respondents in showing the manifestation of market innovation

4.5.3.4 Summary of Firm Innovation Attributes

A summary of the descriptive statistics on firm innovation attributes as manifested in various companies listed at the NSE is presented. These were the summaries on product, process and market innovation. The results of the findings in terms of mean scores and standard deviation are presented in Table 4.20.

Table 4.20: Summary of Firm Innovation Attributes

Firm Innovation Attributes	N	Mean	Std. Deviation
Product Innovation	**40**	3.867	0.657
Process Innovation	**40**	3.911	0.699
Market Innovation	**40**	3.890	0.685

Source: Research Data (2021)

The summary on Firm Innovation measures showed that process innovation attributes had a high mean score (Mean=3.911 and SD=0.699) followed by market innovation attributes (Mean=3.890 and SD=0.6785). The least manifested attributes were those of product innovation (Mean=3.867 and SD=0.657). This implied that companies listed at the NSE focus introducing new processes that are technologically competitive while focusing on entering new markets and using new marketing techniques to gain competitive advantage. Despite the mean of product innovation being the lowest amongst the dimensions of firm innovation, companies listed at the NSE, to an average extent, come up with new products and services using technological innovations while promoting product innovative culture in order to attain competitive.

4.5.4 Competitive Advantage Attributes

The study sought to determine the respondents' level of agreement on competitive advantage attributes. Typically characterized by the capacity of the firms to have moo costs, separate their items, conveying esteem to the customer, effective frameworks and structures and a better showcase share as compared to their competitors. The think about looked for to decide the degree to which competitive advantage components were showed among the overviewed firms. To capture this information, the respondents were entrusted with showing as well as the rating explanations that relate to competitive advantage variables and appearance within the firms. The Likert-type scale of 1 (none) to 5 (more than great extent) was applied in the respective surveyed firms. The findings are presented in Table 4.21 and were measured in terms of mean scores, standard deviation, coefficient of variation and Z scores.

Table 4.21: Competitive Advantage Attributes

Competitive Advantage	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation	Z Scores
CompAdv_6_Our niche customers positively commend our product/service delivery	3	5	4	0.789	19.725	1.331 0 -1.331
CompAdv_4_Our firm records high levels of cost reductions by improving and using efficient product and service delivery ways	3	5	3.95	0.734	18.582	1.209 -0.134 -1.478
CompAdv_12_Our firm's primary goal is to meet our customer needs and deliver value through high quality products and services	3	5	3.95	0.734	18.582	1.478 0.134 -1.209
CompAdv_14_There is fast identification of appropriate market niches where no competition exists in our firm	3	5	3.94	0.744	18.883	1.478 0.134 -1.209
CompAdv_9_We promptly respond to first signals of new opportunities and offer low cost differentiated products and services	2	5	3.94	0.721	18.299	1.639 0.182 -1.275 -2.732

CompAdv_8_Our firm's degree of product differentiation is greater than our competitors'	3	5	3.94	0.674	17.107	1.736 0.193 -1.35
CompAdv_7_We often introduce new products faster than our competitors	2	5	3.92	0.708	18.061	1.478 0.134 -1.209 -2.553
CompAdv_2_We use relatively low number of resources in the generation of products and /offering of services	3	5	3.9	0.593	15.205	2.315 0.568 -1.179
CompAdv_10_We prioritize investments in machinery, systems and structures for efficient production of products and service offering	2	5	3.89	0.812	20.874	1.473 0.271 -0.932 -2.134
CompAdv_3_We enjoy a higher market share as compared to our industry competitors	3	5	3.89	0.603	15.501	1.736 0.193 -1.35
CompAdv_5_We have a strong network of customers resulting to low prices of products and services from reduced advertising costs	2	5	3.87	0.735	18.992	1.563 0.204 -1.156 -2.515

CompAdv_11_We have strict quality control measures through strict sourcing procedures	2	5	3.77	0.612	16.233	1.851 0.308 -1.234 -2.776
CompAdv_13_We have effective ways of addressing differentiated product requirements by instituting effective feedback mechanisms	2	5	3.74	0.599	16.016	1.851 0.308 -1.234 -2.776
CompAdv_1_We take less time to introduce new differentiated products as demanded by customers	3	5	3.73	0.577	15.469	2.315 0.568 -1.179
Valid N (listwise)=40						
Overall Mean			3.88786	0.68821		

Source: Research Data (2021)

The overall mean score of the attributes of competitive advantage was 3.89 and standard deviation 0.688. This depicted a manifestation of attributes of competitive advantage among companies listed at the NSE at an average extent. The statement with high mean; our niche customers positively commend our product/service delivery (Mean=4.00 and SD=0.789). This implies that to a great extent, firms listed the NSE have a competitive edge on product and service delivery and hence the presence competitive advantage relative to their competitors.

Similarly, to an average extent, surveyed firms employ the use of improved and efficient service delivery procedures leading to enormous cost reductions (Mean=3.95 and SD=0.734). Cost focus is an important aspect of competitive advantage because the firms' rents will be increased from lowered costs. It was also found that, to an average extent, the main goal of companies listed at the NSE is to meet customer needs and create value (Mean=3.95 and SD=0.734).

Customer loyalty is an important aspect of competitive advantage because the competitors will not be able to increase their market share and consequently their performance. Firms with loyal customers have a competitive advantage. Additionally, companies listed at the NSE, to an average extent, have extensive differentiated products and services as compared to their competitors (Mean=3.94 and SD=0.674). This implies that the surveyed firms can charge premium prices from their differentiated products as compared to their competitors. They are also able to attract new customers who value differentiated products and hence outperform their competitors in the market. The respondents agreed to an average extent that they introduce new products faster than their competitors with a mean of 3.92 and standard deviation of 0.708. This implies that these companies attain competitive advantage from being first in the market and therefore develop customer loyalty while improving their organizational performance. The statement on companies listed at NSE using a relatively low number of resources in the generation of products or when offering services had a mean of 3.90 with standard deviation of 0.593. This means that the firms, to an average extent, are efficient in the production of their goods

or services and therefore gains a competitive advantage as compared to their counterparts who use more resources and hence lower economic rents.

Companies listed at NSE prioritize in the invest of efficient machinery, structures and systems to an average extent (Mean=3.89 and SD=0.812). This is an important component of competitive advantage as the efficient machinery, structures and systems will lower costs substantially and increase the economic value of the firm. The statement; we enjoy a higher market share as compared to our industry competitors shows that the surveyed firms have a competitive advantage to an average extent (Mean=3.89 and SD=0.603). A higher market share depicts the strength of the firm in the industry from selling differentiated and or low-priced products or services that have captured customer loyalty. Similarly, the surveyed firms have low advertising costs emanating from strong customer network and hence lowered prices (Mean=3.87 and SD=0.735). This creates value to the customer as they will not only be aware of the product from advertising but also from low priced goods and or services. The importance of quality in gaining a competitive advantage is seen in the statement; we have strict quality control measures through strict sourcing procedures which had a mean of 3.77 and standard deviation of 0.612.

In this case, customers are attracted and retained by offering high quality goods and services that is ensured by strict quality control measures during sourcing process. Companies listed at NSE, to an average extent, have effective ways of addressing differentiated product requirements by instituting effective feedback mechanisms (Mean=3.74 and SD=0.599). This will result in an attained competitive advantage since the changes in consumer preferences are incorporated faster than the competitors. The firms are equally able to improve their products and hence attract new customers and this emanates from efficient feedback mechanisms. The statement with the least mean of competitive advantage manifestation was; we take less to introduce new differentiated

products as demanded by customers (Mean=3.73 and SD=0.577). However, it is apparent that the surveyed firms agree, to an average extent, the important of introducing new products to meet their customer needs. This will result in a competitive advantage since the customers will not shift their loyalty to the competitors.

There was less changeability within the reactions as seen from the coefficient of varieties that extended from 15.21% to 20.87%. The explanation that had the least changeability of 15.21% was on the utilize of relatively less assets within the era of items and /advertising of administrations by the overviewed firms and portrays a agreement of respondents' conclusions. The articulation with the most elevated coefficient of variety of 20.87% appears different sees of respondents and was on studied firms giving need to venture in effective apparatus, frameworks and structures. Among the articulations portraying the appearances of competitive advantage, the explanation with the most reduced Z score (-2.776) was on overviewed firms having strict quality control measures through strict sourcing methods. This appeared that a few of the respondents did not see that the studied firms had these measures and thus the values were lower than cruel esteem. The explanation that had the biggest Z score of 2.315 was on the overviewed.

4.6 Results of Tests of Hypotheses

This section presents the results after testing the stipulated hypotheses. Hypotheses are key in arriving at a conclusion about a phenomenon since they display conceptualized relationships between the study variables in a conceptual model. Testing these speculations will empower a analyst to form conclusions approximately the marvel being examined. This ponder postured four particular goals and came up with four comparing speculations that were tried utilizing basic, progressive and numerous relapses. The point of testing of these speculations was to ascertain their factual noteworthiness. The primary speculation was tried by employing a basic relapse of energetic capabilities on

competitive advantage of companies recorded at NSE. The moment theory was tested utilizing various leveled relapse investigation in arrange to discover whether key introduction features a directing impact on the relationship between energetic capabilities and competitive advantage of companies recorded at NSE. Step one included relapsing energetic capabilities build on competitive advantage.

The second step involved the introduction of strategic orientation into the model and regressing on competitive advantage. The last step entailed the introduction of the interaction term between dynamic capabilities and strategic orientation into the model and performing regression to competitive advantage. A statistically significant effect of interaction term in the model could only confirm the moderation effect of the variable. The third speculation was tried utilizing four-step approach relapse examination in arrange to set up the mediating role of firm advancement within the relationship between DC and CA (Noble & Kenny, 1986). The primary step was accomplished by relapsing energetic capabilities on competitive advantage. The moment step included relapsing energetic capabilities on firm advancement. A clear straight relapse of firm headway and competitive advantage was done to test the hypothesis inside the third step. The affect of firm progression on competitive advantage had to be basic in orchestrate to test the catch affect inside the appear. The ultimate step included testing the affect of enthusiastic capabilities on competitive advantage when the affect of firm progression is controlled. Fundamental straight backslide examinations were utilized in the midst of these tests.

Encourage, the think about hypothesized that a noteworthy joint impact of energetic capabilities, key introduction and firm advancement on competitive advantage exists. This final speculation was tried utilizing different relapse examination. In this different relapse investigation, competitive advantage was the subordinate variable, whereas energetic capabilities, vital introduction and firm development were indicator factors within the

demonstrate. The joint impact was decided by relapsing indicator factors on competitive advantage. In arrange to realize this objective, computation of a composite file for each think about variable was done by averaging the whole number of estimation things on each variable.

Dynamic capabilities construct was a composite index of sensing capabilities, seizing capabilities and integration capabilities. Strategic orientation measurement was a composite index of market orientation, entrepreneurial orientation and leaning orientation. Firm innovation variable was measured as a composite index of product innovation, process innovation and market innovation. Competitive advantage used the elements of low costs, differentiation focus and quality of products.

4.6.1 Dynamic Capabilities and Competitive Advantage

The first research objective of the study gave rise to the first hypothesis which after testing it, the results are presented in this subsection. This particular objective looked for to discover the impact of energetic capabilities on competitive advantage of companies recorded at NSE. The method of testing and comes about are discussed. The ponder recommendation is on energetic capabilities affecting the competitive advantage of companies recorded at NSE. Energetic capabilities traits incorporate; detecting, seizing and integration capabilities are assumed to impact competitive advantage. Examination was done by calculating the lists for each of the energetic capabilities' measurements and afterward relapse examination done with competitive advantage being the subordinate variable**.** The results are presented in Table 4.22

Table 4.22: Regression Results of the influence of Dynamic Capabilities

Model Summary

Model	R	R Square	Adjusted R Square	Sig. F Change
1	.669[a]	.448	.439	0.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.040	1	5.040	31.690	.000[b]
	Residual	6.211	39	.159		
	Total	11.250	40			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			95.0% Confidence Interval for B	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	.549	.480		1.143	.258	-.412	1.509
	Dynamic Capabilities	.854	.122	.669	6.978	.000	.609	1.098

a. Dependent Variable: Competitive Advantage

Source: Research Data (2021)

The study discovered an unsurprisingly substantial correlation between passionate talents and business success (R= 0.669). The confirmation coefficient (R2 = 0.448) demonstrates that the passionate capabilities construct accounts for 44.8% of the variation in competitive advantage. The result of the Tall t-test for significance is 6.978, suggesting that an active capability's ability to generate an advantage in the marketplace is statistically significant (p0.05). An F-statistic of 31.69 and a p-value of 0.000 (p 0.05) are shown in the following illustration. A significant beta coefficient (B=0.854, t=6.978, p0.05) suggests that the company is likely to gain a competitive advantage as a result of its increasing use of enthusiastic talents over the long term. This data compiles the idea that dynamic capabilities foretell a market advantage. Consequently, the null hypothesis (H01) was rejected as a result of the findings, which provided a foundation for drawing conclusions about the impact of enthusiastic qualities on the competitive advantage of firms listed on the NSE. The regression equation is written as;

CA = 0.549+ 0.854 DC where CA = Competitive Advantage, DC= Dynamic Capabilities

4.6.2 Dynamic Capabilities, Strategic Orientation and Competitive Advantage

The moderating effect of strategic orientation was established by testing the effect of the dynamic capabilities on competitive advantage when the moderator is introduced. The goal was to determine whether strategic orientation had a moderating effect on the relationship between dynamic capabilities and competitive advantage of companies listed on the NSE.

Testing of the hypothesis was done by employing Hierarchical regression analysis. Step one involved regressing dynamic capabilities construct on competitive advantage. The second step involved the introduction of strategic orientation into the model and regressing on competitive advantage. The last step (three) entailed the introduction of the interaction term between dynamic capabilities and strategic orientation into the model and performing regression to competitive advantage. A statistically significant effect of interaction term in the model can only confirm the moderation effect of a variable. Table 4.23 shows the findings of the tests.

Table 4.23: Regression Results of the Moderating effect

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.643[a]	.413	.403	.30500	.413	40.178	1	37	.000
2	.713[b]	.508	.490	.28180	.095	10.768	1	36	.002
3	.722[c]	.521	.495	.28058	.013	1.491	1	35	.227

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.737	1	3.737	26.698	.000[b]
	Residual	5.302	37	.140		
	Total	9.040	38			
2	Regression	4.593	2	2.296	18.667	.000[c]
	Residual	4.447	36	.123		
	Total	9.040	38			
3	Regression	4.710	3	1.570	12.661	.000[d]
	Residual	4.330	35	.124		
	Total	9.040	38			

Coefficients[a]

Model					t	Sig.		
		B	Std. Error	Beta				
1	(Constant)	.765	.491		1.556	.125	-.219	1.749
	Dynamic Capabilities	.796	.126	.643	6.339	.000	.545	1.048
2	(Constant)	.091	.498		.182	.856	-.907	1.089
	Dynamic Capabilities,	.380	.172	.307	2.213	.031	.036	.724
	Strategic Orientation	.600	.183	.455	3.281	.002	.234	.967
3	(Constant)	7.037	5.709		1.233	.223	-4.404	18.478
	Dynamic Capabilities	-1.416	1.481	-1.144	-.956	.343	-4.383	1.551
	Strategic Ori	-1.223	1.504	-.928	-.813	.420	-4.237	1.791
	Interaction term	.469	.384	2.644	1.221	.227	-.301	1.239

Source: Research Data (2021)

The dynamic capabilities-competitive advantage model's moderating impact of strategic orientation is summarized in Table 4.23.

Three steps were involved in the computations that came about. The first model demonstrates that there was a significant relationship between dynamic capabilities and competitive advantage (R = 0.643, R2 = 0.413, P-value 0.05). In the second model, strategic orientation and dynamic capabilities were significantly associated with competitive advantage (R = 0.713, R2 = 0.508, P 0.05). The third and final stage of testing this hypothesis revealed that the model was rendered insignificant by the addition of interdependent dynamic capabilities and strategic orientation (R = 0.722, R2 = 0.521, P-value 0.05). The interaction term has a value of Sig=0.227, which is greater than 0.05, despite the values of the coefficients of variation increasing after each step.

This recommends that the interaction term is unessential, and as a result, vital introduction isn't serving as a arbitrator. The demonstrate comes about uncovered a unequivocally positive relationship between energetic capabilities, vital introduction and competitive advantage ($R = 0.722$, $p > 0.05$) but not critical. The demonstrate assist appears R-squared of 0.521 and subsequently the demonstrate clarifies 52.1% of what competitive advantage is comprised of in this dataset as a result of the interaction with energetic capabilities and vital introduction. Subsequently 52.1% of variety in competitive advantage can be clarified by an increment in energetic capabilities and vital introduction. Due to the truth

that the interaction term within the demonstrate is non-significant, the think about rejects the theory that vital introduction moderates the impact of DC on CA of companies recorded at NSE.

This may be seen advance in lower and upper certainty interims [LLCI: -0.301, ULCI: 1.239] where the zero (0) is inside the certainty interim and hence balance is non-significant. In this manner, the presentation of connecting key introduction and energetic capabilities into the show makes it non-significant. This assist implies that the impact of energetic capabilities on competitive advantage of companies recorded at NSE isn't reinforced or debilitated by vital introduction.

The moderating equations for dynamic capabilities strategic orientation and competitive advantage can thus be written as:

CA = 0.091 + 0.796 DC

CA = 7.037+ 0.380 DC + 0.600 SO

CA = 0.765 - 1.416 DC - 1.223SO + 0.469 DC* SO

Where: CA= competitive advantage; DC= Dynamic Capabilities; SO= Strategic Orientation; DC* SO = Dynamic Capabilities and Strategic Orientation.

4.6.3 Dynamic Capabilities, Firm Innovation and Competitive Advantage

The think about looked for to decide the impact of firm advancement as a arbiter of energetic capabilities-competitive advantage relationship through detailing of speculation

comprising of the three factors. The point was to set up whether firm advancement includes a critical mediating effect on the relationship between the aforementioned variables. Relapse investigation was utilized within the ponder to test the speculation employing a four-step approach proposed by Noble and Kenny (1986). Relapsing energetic capabilities on competitive advantage empowered the primary step to be completed.

The second step can only be taken, according to Baron and Kenny (1986), if statistically significant results were discovered in the first step. The regression process is stopped if the results are not statistically significant. Regressing dynamic capabilities on firm innovation is what this step entails. Similar to the first condition, the third and subsequent condition can only be followed if the results of the hypothesis-testing are significant. In order to test the hypothesis, a straightforward linear regression of firm innovation and competitive advantage is conducted.

To test the mediating impact within the demonstrate, the affect of firm advancement on competitive advantage must be critical. Testing the affect of energetic capabilities on competitive advantage when the affect of firm innovation is controlled is the ultimate step. Amid these tests, clear straight relapse examinations were utilized. The impact of energetic capabilities on competitive advantage must be statistically non-significant when firm development is taken into consideration for the intervention impact to be concluded. When testing for intervention impacts in investigate models, this necessity is pivotal. The results from each model step are shown in Tables 4.24, 4.25, 4.26, and 4.27.

Step One: Dynamic capabilities construct was regressed against competitive advantage.

Table 4.24: Regression Results for the Effect of Dynamic Capabilities

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.646[a]	.417	.407	.30240	.417	41.497	1	38	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.795	1	3.795	27.302	.000[b]
	Residual	5.304	38	.139		
	Total	9.099	39			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.758	.485		1.563	.123	-.213	1.729
	Dynamic capabilities	.798	.124	.646	6.442	.000	.550	1.046

a. Predictors: (Constant), Dynamic capabilities

b. Dependent Variable: competitive advantage

According to Table 4.24's findings, there is a strong and positive correlation between dynamic capabilities and competitive advantage (R = 0.646), which is statistically significant. These dynamic capabilities account for 41.7% of variations in competitive advantage, according to the resulting coefficient of determination (R2 = 0.417). Because the p-value of 0.00 is also less than 0.05, the robust F-value of 27.302 demonstrates that the model is appropriate and significant. These preliminary findings satisfy the criteria for testing the mediating role of firm innovation. Testing the impact of dynamic capabilities on

Step 2: Relationship between the Independent Variable and the Mediator

Table 4.25: Regression Results for the Effect of Dynamic Capabilities

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.596[a]	.355	.344	.28169	.355	31.898	1	38	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.531	1	2.531	20.918	.000[b]
	Residual	4.602	38	.121		
	Total	7.134	39			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.337	.452		2.958	.004	.432	2.241
	Dynamic capabilities	.652	.115	.596	5.648	.000	.421	.882

a. Dependent Variable: firm innovation

b. Predictors: (Constant), Dynamic capabilities

Source: Research Data (2021)

The discoveries, which are displayed in Table 4.25, illustrate that there's a solid and positive relationship between energetic capabilities and firm development that's moreover factually noteworthy (R = 0.596). Energetic capabilities were appeared to account for 35.5% of varieties in firm advancement by the coefficient of variety (R2 = 0.355). Moreover, the F-value of 20.918, which is critical and contains a p esteem less than 0.05, illustrates that the show was fitting and measurably critical. The previously mentioned discoveries made it conceivable to move forward with the testing of firm innovation's intervening impact. Relapsing firm development against.

Step 3: Relationship between the Mediator and dependent variable

Table 4.26: Regression Results for the Effect of Firm Innovation on Competitive Advantage

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.674[a]	.455	.446	.29899	.455	49.211	1	39	.000

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.399	1	4.399	32.581	.000[b]
	Residual	5.274	39	.135		
	Total	9.673	40			

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.899	.428		2.102	.040	.043	1.754
	firm innovation	.768	.109	.674	7.015	.000	.549	.987

a. Dependent Variable: competitive advantage

b. Predictors: (Constant), firm innovation

Source: Research Data (2021)

According to the data presented in Table 4.26, there is a substantial correlation between company innovation and competitive advantage (R = 0.674 and R2 = 0.455, respectively). Furthermore, according to these findings, firm innovation is responsible for 45.5% of the fluctuations in competitive advantage. In addition, the fact that the model was acceptable and statistically significant is demonstrated by the fact that the F-value was 32.581, which is significant and has a p value that is less than 0.05. The third requirement had been met, therefore the testing method for the mediating impact of company innovation could proceed thanks to the results of the third phase, which were mentioned earlier. This was made possible by the fact that the third criteria had been satisfied.

The fourth and last phase consisted of conducting the study, which aimed to assess the influence that dynamic skills have on a business's competitive advantage when firm innovation is managed. A straightforward linear regression analysis was used in the testing process. It is predicted that the influence of dynamic capabilities on a firm's competitive advantage would be mitigated when innovation within the company is brought under control.

When firm innovation is controlled, the data shown in Table 4.26 indicate that dynamic capabilities only account for 41.7% of the variance in performance. The value of R2 for this relationship is 0.417. The second model demonstrates that a rise in company innovation leads to an increase in the consequent competitive advantage, as evidenced by an increase in variation from 0.417 to 0.532 and a p-value of.000. The first model had a F value of 27.302, and its p-value was 0.000. The second model had a F value of 21.052, and its p-value was also.000. Both of these models were suitable and significant..

Step 4: The relationship between the independent variable and Dependent variable in the presence of the mediator variable.

Table 4.27: Regression Results Depicting Mediating Effect

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.646[a]	.417	.407	.30240	.417	41.497	1	38	.000
2	.730[b]	.532	.516	.27325	.115	14.036	1	37	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.795	1	3.795	27.302	.000[b]
	Residual	5.304	38	.139		
	Total	9.099	39			
2	Regression	4.843	2	2.421	21.052	.000[c]
	Residual	4.256	37	.115		
	Total	9.099	39			

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	.758	.485		1.563	.123	-.213	1.729		
Dynamic capabilities	.798	.124	.646	6.442	.000	.550	1.046	1.000	1.000
(Constant)	.121	.470		.256	.799	-.821	1.062		
Dynamic capabilities	.487	.139	.394	3.495	.001	.208	.766	.645	1.550
firm innovation	.477	.127	.423	3.747	.000	.222	.732	.645	1.550

The findings shown in Table 4.27 reveal a significant and significant association between dynamic capacities, company innovation, and competitive advantage. The correlation

coefficient between these three factors is R = 0.730. The coefficient of determination, R2 = 0.532, suggested that dynamic capacities and company innovation may be responsible for 53.2% of the fluctuations in competitive advantage.

According to the findings of the mediation test, the beta coefficient for the indirect impact is [0.487], but the beta value for the total effect is [0.798]. This would imply that the link between dynamic capabilities and competitive advantage of businesses listed on the NSE has a partly intervening influence of corporate innovation. Because the total effect beta coefficient [0.798] is greater than the indirect effect beta coefficient [0.487], firm innovation can be considered a partial intervening variable. This is due to the fact that when the intervening variable (firm innovation) is introduced into the relationship between dynamic capabilities and competitive advantage, the total effect beta coefficient [0.798] increases.

In addition, there is some mediation taking place as a result of the fact that the relationship between dynamic capabilities and competitive advantage is significant with a p-value of 0.05 in both the presence and absence of firm innovation. This indicates that there is some kind of interaction between the two. Concerning the veracity of the notion that business innovation mediates the connection between dynamic skills and a competitive advantage, there was a widespread agreement among researchers. As a consequence of this, companies that are traded on the NSE demonstrate the qualities of innovative firms to the degree that this factor determines their competitive advantage.

4.6.4 The Joint Effect

The fourth objective was to establish the joint effect of dynamic capabilities, strategic orientation, and firm innovation on competitive advantage. This objective was going to be realized by formulating and testing the fourth hypothesis which was: dynamic capabilities, strategic orientation and firm innovation have a significant joint effect on competitive advantage of companies listed at NSE. The resultant hypothesis was tested using multiple regression analysis. Competitive advantage was the dependent variable, while dynamic capabilities, strategic orientation and firm innovation were predictor variables in the model. The joint effect was determined by regressing predictor variables on competitive advantage.

Table 4.28: Regression Results of the joint effect

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.754[a]	.569	.545	.26622	.569	24.183	3	35	.000

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.142	3	1.714	15.441	.000[b]
	Residual	3.898	35	.111		
	Total	9.040	38			

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.213	.483		-.441	.661	-1.182	.755
	Dynamic Capabilities	.271	.167	.219	1.624	.110	-.063	.606
	Strategic Orientation	.412	.186	.313	2.222	.030	.040	.784
	Firm Innovation	.374	.134	.328	2.784	.007	.105	.643

From Table 4.28, the regression results show that the joint influence on competitive advantage was significant where R^2 = 0.569, F= 15.441, P < 0.05). The relationship between the predictor variables and competitive advantage was strong as given by R =

0.754. Further, the results suggest that jointly, dynamic capabilities, strategic orientation and firm innovation explain 56.9% of variation in competitive advantage. The model was appropriate and significant since the F ratio was15.441 and statistically significant at $P < 0.05$. The model was fit for analysis from the R^2 value of 0.569 and F ratio.

The fourth hypothesis' regression model is as follows:

Initial model: $CA = \alpha + \beta 1DC + \beta 2SO + \beta 3FI + \varepsilon$

Resulting model: CA= -0.213 + 0.271 DC + 0.412 SO + 0.374FI

Where,

CA= Competitive Advantage

DC=Dynamic Capabilities

SO= Strategic Orientation

FI= Firm innovation.

ε= Error/disturbance

From the model, an observation could be made that companies listed at Nairobi Securities exchange could be competitively disadvantaged in case dynamic capabilities, strategic orientation and firm innovation are absent. However, for an increase in the adoption of dynamic capabilities and firm innovation while employing strategic orientation in their daily processes will increase their competitiveness and hence achieve competitive advantage. This comes from the positivity of coefficients of 0.271 for dynamic capabilities, 0.412 for strategic orientation and 0.374 for firm innovation.

Moreover, it is thus evident from the model's findings that competitive advantage of companies listed at NSE is influenced greatly by the combination of dynamic capabilities, strategic orientation and firm innovation, whose beta coefficients were all positive.

Table 4.29: Summary of Hypotheses

Objective	Hypothesis	F-test	Levels of Significance	Conclusion
i) To determine the influence of DC on CA of companies listed at NSE	**H1**: There is a significant influence of DC on CA of companies listed at NSE.	31.69	.000	Dynamic Capabilities influences Competitive Advantage strongly
ii) To determine the effect of strategic orientation on the relationship between DC and CA of companies listed at NSE.	**H2**: There is a significant moderating effect of strategic orientation on the relationship between DC and CA of companies listed at NSE	26.698	.227	There is no statistical moderating influence of strategic orientation on the relationship between DC and CA **H2 was not**
iii) To determine the effect of firm innovation on the relationship between DC and CA of companies listed at NSE.	**H3**: There is a significant mediating effect by firm innovation on the relationship between DC and CA of companies listed at NSE	27.302	.000	There is a partial mediating influence of firm on the association between Dynamic Capabilities and Competitive Advantage **H3 was supported**
iv) To determine the joint effect of DC, strategic orientation and Firm innovation on CA of companies listed at NSE.	**H4**: Dynamic capabilities, strategic orientation and firm innovation have a significant joint effect on CA of companies	15.441	.000	There is a significant joint effect of DC, SO and FI on CA **H4 was supported**

Source: Research Data (2021)

According to the data given in this section, there is a significant positive association between dynamic skills and the competitive advantage of NSE-listed enterprises (R = 0.669, R2 = 0.448, and P = 0.000). Strategic orientation did not moderate the relationship between dynamic skills and competitive advantage (R = 0.643, R2 = 0.413, P = 0.227). Additionally, it was shown that firm innovation moderates the connection between NSE-listed businesses' dynamic capacities and competitive advantage (R = 0.646, R2 = 0.417, P = 0.000). This is one conclusion drawn from the study. NSE-listed enterprises' competitive advantage is highly influenced by the company's innovativeness, strategic orientation, and dynamic skills (R = 0.754, R2 =.569, P = 0.000). This was the final conclusion reached. This resulted in the validation of three of the four hypotheses evaluated in the study.

Chapter 4 presents the findings and discussion from the research that aimed to assess how strategic orientation and corporate innovation influence the connection between dynamic capabilities and competitive advantage for NSE-traded firms. The research set out to answer the question of whether or not strategic direction and corporate innovation have a role in the success of new ventures. Multiple analyses conducted on the study variables are presented below, along with their respective means and standard deviations. In addition, we conducted tests for multicollinearity, normality, and the absence of heteroscedasticity and linearity. Finally, there was a discussion regarding where the hypotheses were really being tested. To test the first hypothesis, we used a typical regression analysis to look at how businesses trading on the NSE's exchange fared when their dynamic skills gave them an edge in the marketplace. Hierarchical regression analysis was used to test the second hypothesis, which asked whether or not a company's strategic direction moderates the connection between dynamic skills and the competitive advantage of NSE-listed firms. This study aimed to examine the potential moderating effect of strategic orientation. Regression analysis using a four-step approach was used to investigate the third hypothesis and the mediating role that firm innovation has in the connection between DC and CA.

Multiple regression was used to test the final hypothesis. Dynamic skills, strategic orientation, and firm innovation were the predictors of competitive advantage, the independent variable. Competitive advantage was the independent variable. Using a regression analysis, we were able to ascertain the whole impact by factoring in predictors and the competitive edge.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

In this chapter, we will review the findings of this study, bearing in mind both the aims of the research and the hypotheses that were developed. It provides an explanation of the descriptive statistics of the research variables as well as the outcomes of the tested hypotheses that were derived from the particular aims of the investigation. These were built using the conceptual and empirical literature that was previously accessible, and as a consequence, they led to the production of a conceptual model that characterized the connections that existed between the variables. Following the validation of the statistical presumptions, the hypotheses were put to the test by the use of regression analysis.

The dynamic capabilities (DC) and competitive advantages (CA) of firms that are listed on the NSE were thought to have some sort of connection, since this was the working hypothesis of the study. According to the findings of the study, this connection is also influenced and mediated by the level of strategic direction that a company maintains. In order to accomplish the overarching purpose of the study, its hypotheses were developed based on four more precise objectives that were outlined in the introduction.

The third and final null hypothesis stated that there is no substantial joint link between dynamic capabilities, strategic orientation, and the company innovation and competitive

advantage of firms that are listed on the NSE. In order to evaluate the first hypothesis, a straightforward regression analysis was utilized. Using hierarchical regression analysis, the second hypothesis was examined to establish whether or not strategic orientation had a moderating influence. Using Baron and Kenny's four-step technique from 1986, the research investigated whether or not there was an intervening impact caused by business innovation for hypothesis number three. In this study, the fourth and final hypothesis regarding the combined effect of the three predictor variables was put to the test through the utilization of multiple regression analysis. The purpose of the study, the sort of data that was collected, and the measurement scales used were all important factors that played a part in choosing the analytical methodologies and approaches.

The norms of hypothesis testing were adhered to throughout the course of the investigation, and a confidence level of 95 percent (=0.05) was utilized in order to evaluate the four hypotheses. Therefore, p values were utilized in the process of deciding whether or not the hypothesis could be rejected or whether or not it was unable to be discarded. This suggests that if the p value is less than 0.05, the research will not be able to reject the hypotheses, however if the p value is greater than 0.05, the research will reject the hypotheses. Using correlation coefficients (R), coefficients of determination (R2), F-statistic values (F), and beta value (), the study further interpreted the data and explained them. The coefficient of determination, often known as R2, is an essential component of

inferential statistics. It demonstrates the variations in the outcome variable that may be attributed to changes in the variables that are considered independent.

The F statistic is an important factor to consider when determining the applicability of a model. In this instance, a high F-statistic indicates that the model in question is both reliable and significant. In the statistical model, the nature of the influence that the predictor variable has on the dependent variable is represented by the symbol for beta, which is a capital letter "b." In this instance, the sign might either be negative or positive, indicating that the predictor variable either has a negative or positive influence on the dependent variable, depending on which interpretation one chooses. The value of the correlation coefficient, or R, is a measure of how strongly the variables under examination are associated with one another. As a result, the degree to which the aforementioned variables are correlated is proportional to the magnitude of the R value. Last but not least, t-values illustrate the degree to which the research variables are significant. The outcomes of the tests conducted on the hypotheses that were derived from the particular aims of the study are presented in the sections that follow.

5.2 Dynamic Capabilities and Competitive Advantage

The first purpose of the study was to determine the extent to which dynamic skills contribute to the competitive advantage enjoyed by NSE-listed businesses. This was the major goal of the first objective. According to the resultant hypothesis, H1, the dynamic

capabilities construct has a considerable impact on the degree to which businesses listed on the NSE benefit from their position as market leaders. The dynamic capabilities construct includes capabilities for sensing, seizing, and integrating all in its components.

The outcomes of the study suggested that dynamic skills had a considerable effect on competitive advantage. This was supported by the fact that the matching p-value was less than 0.05. As a consequence of this, dynamic skills have a significant impact on the degree to which firms listed on the NSE maintain a competitive edge. According to the findings of empirical study, there is a correlation between DC and competitive advantage, which is both substantial and favorable (Teece et al., 2014).

Businesses who are able to reorganize their resource base obtain a competitive advantage (Teece, 2012) and enjoy market domination either by weakening the positions of their competitors or by capitalizing on the growing industry (Purkayastha & Sharma, 2016). In order for enterprises to improve their position in the market and acquire a competitive edge, they need to make adjustments to their resource base and ensure that their procedures are adaptable (Deya, 2016; Schilke, 2014; Teece, 2014). It has been shown that dynamic skills may assist companies in achieving a competitive edge in environments that are either stable or volatile. This is true regardless of the environment. According to Kalali and Heidari (2016), dynamic capabilities have a stronger influence on competitive advantage under tumultuous environmental conditions than they do under stable environmental changes. This is because tumultuous environmental conditions present more opportunities

for innovation and disruption. For the purpose of their study, they looked at 14 different Iranian management consulting businesses and utilized comparative longitudinal case analysis. Nevertheless, Cui and Jiao (2011) discovered in their research on 227 Chinese manufacturing companies that dynamic capabilities have a significant impact on competitive advantage in both slow-moving and fast-moving markets. This was the finding of their investigation into Chinese manufacturing companies. According to Deya et al. (2016), dynamic capacities have a substantial influence on the financial performance of technical and vocational education and training (TVET) institutions in Kenya.

This research makes use of the dynamic capabilities theory in order to illustrate how high-value resources may be generated, updated, transformed, and redeployed in order to offer an organization a competitive edge in a given industry (Teece & Pisano, 1994). Despite the fact that new combinations of competencies, resources, and capabilities are constantly being developed, it has been observed that market competitors are continually improving their resources or copying procedures that are seen as profitable by market leaders. This is the case despite the fact that new combinations of competencies, resources, and capabilities are constantly being developed. As a result, it is essential to focus on internal processes such as sensing, capturing, and integrating, while simultaneously enhancing management's capacity to coordinate routines and other activities (Teece, 2018). This research lends credence to the proposition that the aforementioned factors are connected in a constructive way, as the theory predicts.

This research provides empirical evidence that dynamic skills contribute to the NSE-listed firms' competitive advantage. The results from this research correlate well with those of the investigations by Teece, Pisano, and Shuen. Their results are consistent with this one (2007). The authors of this study disagree with Peteraf et al. (2013), who argue that dynamic capabilities theory only creates competitive parity rather than advantage, despite the fact that the theory is crucial for analyzing the creation of economic rent and the differences in firm performance in a technologically advanced business environment. This research shows that in order for businesses to maintain an edge over their competitors, they must train their employees to better recognize, collect, and use relevant information. The NSE requires this of all firms before they may be listed there. Researchers found a strong correlation between a company's adaptability and its ability to compete successfully in the stock market.

5.3 Dynamic Capabilities, Strategic Orientation and Competitive Advantage

The study's secondary objective was to look at how a company's strategic orientation affects the correlation between dynamic talents and a competitive edge. Strategic orientation was not found to attenuate the link between dynamic abilities and competitive advantage, contrary to the hypothesis's expectations from the data analysis. A strategic perspective is not acting as a moderator since the p-value for the interaction term was greater than.05. A significance level of Sig = 0.227 was found for the interaction term. That's why the interaction term didn't get the nod as statistically significant. This

demonstrates that the strategic orientation of companies listed on the NSE has no bearing on the relationship between their dynamic capabilities and their competitive advantage.

In contrast to the findings of the literature review, which discovered that research of this nature had a moderating influence on strategic orientation, the findings of the analysis contradict those of the review. According to Ferreira and Coelho's research, a strategic perspective, and in particular an entrepreneurial orientation, acts as a moderator in the connection between dynamic capacities and competitive advantage (2019). This moderation had an important role and contributed positively. In order to determine the nature of the connections between all 387 Portuguese SMEs, the research project made use of structural equation modeling.

The authors arrived at the conclusion that an entrepreneurial attitude contributes to the enhancement of an entity's capacity for exploration, which in turn contributes to the achievement of a competitive advantage. Zhou and Li (2010) discovered that strategic orientation increases the association between dynamic skills and competitive advantage in their study of 380 consumer goods businesses in China. Despite this, the study discovered a connection between strategic orientation and a competitive advantage, with a correlation coefficient of.713a and a correlation coefficient of 0.508, and a significance level of 0.05. This lends credence to the study that has been done relating various facets of strategic orientation to the degree to which a company excels in its industry. For instance, Chahal et al. (2016) used structural equation modeling to prove that strategic

orientation had a beneficial effect on the organization performance of 900 Small and Medium Enterprises in India.

A study conducted in 2017 on successful service organizations in India by Kamboj and Rahman demonstrated a significant direct correlation between strategic orientation and organizational performance. These findings were consistent with the findings of the aforementioned study. An explanation study on strategic orientations was carried out by Nakola et al. (2015) on small and medium-sized enterprises (SMEs) in Kenya. They found that strategic orientation increases firm performance and, as a consequence, the firm's competitive advantage. This is because strategic orientation improves process efficiency and customer satisfaction. The purpose of the contingency theory is to explain why it seems that organizational systems and the environments in which they operate are connected to one another. The different divisions of the company are renowned for their capacity to adjust to one another and their environments while simultaneously accomplishing their objectives. This company serves as an illustration of a heterogeneous collection of subsystems that are capable of operating in a variety of settings. As a result, it is generally accepted that there is no singular strategy that can successfully manage a business.

The theory explains how different strategic orientations chosen by a particular company—which are dependent on organizational and environmental contingencies—can be considered appropriate. These strategic orientations are dependent on organizational and

environmental contingencies. In order to comprehend dynamic capabilities and gain a competitive advantage, it is essential to adhere to the central tenet of the theory, which states that organizations should continually assess their environments before developing appropriate strategies. This tenet states that organizations should develop appropriate strategies after conducting environmental assessments. According to the findings of the study, the relationship between the DC and CA of companies that are listed on the NSE is not significantly moderated by the strategic orientation of those companies...

5.4 Dynamic Capabilities, Firm Innovation and Competitive Advantage

The final objective was to figure out how the innovation of firms mediated the relationship between their dynamic capabilities and their competitive advantage when they were listed on the NSE. The findings provide some evidence in support of the idea that the aforementioned link between companies listed on the NSE is mediated by the level of innovation within the firms themselves. There is a partial mediation because there is a significant correlation between the presence of dynamic capabilities and competitive advantage and there is also a significant correlation between the presence of dynamic capabilities and competitive advantage and the presence of firm innovation. Both of these correlations are significant.

These findings are supported by previous research (Jiménez & Fuentes, 2013; Alon & Cui, 2011; Darawong, 2018; Ferreira & Coelho, 2019), which may be found in the following citations: Ren et al. (2016) reached the conclusion that developing an

organization's in-house capacity for innovative problem-solving is required in order to enhance not just the daily operational efficiency of a business but also its ability to adapt to the ever-evolving requirements of its clientele. Innovation is said to serve a mediating function in the interaction between dynamic capacities and competitive advantage, as stated by Ferreira and Coelho (2019). They also reached the conclusion that dynamic capabilities assist firms in the development of new goods, which in turn helps such organizations differentiate themselves from their competitors. Innovation inside a firm is essential to ensuring its continued existence.

If companies do not invest in the creation of new goods or improvements to existing processes, they will find it more difficult to compete in their respective industries. According to Jansen and Cau (2012), the degree to which a business participates in innovative activities directly correlates to the likelihood of the firm earning a competitive advantage. Path dependence theory has a significant bearing on the connection that exists between dynamic capacities, the innovation of companies, and the competitive advantage enjoyed by those companies. The idea postulates that the beginning conditions and the historical precedents have a role in determining the final outcomes of a situation. Because of the increased capacity of decision makers to take in information, the success of present decisions will thus impact the success of future decisions and the consequences that emerge from those decisions (Schon, 2012).

5.5 Dynamic Capabilities, Strategic Orientation, Firm Innovation and Competitive Advantage

The study also investigated the combined effects of dynamic capabilities, strategic orientation, innovative company practices, and competitive advantage among NSE-listed companies. The matching hypothesis, which was denoted with the letter "H4" and stated that the dynamic capabilities, strategic orientation, and company innovation of businesses listed on the NSE had a large combined influence on competitive advantage, was put to the test. According to the findings, the combined effect of these predictor factors was statistically significant, which suggests that the variables jointly influenced a company's level of competitive advantage.

According to the findings of this research, the claim made by Ferreira and Coelho (2019) that innovation, strategic direction, and dynamic capacities all play a substantial role in determining a company's level of competitive advantage is correct. However, the findings of Tresna and Raharja (2019) contradict the findings of this study, which discovered that firm innovation, strategic orientation, and dynamic capabilities did not all together influence competitive advantage. These findings run counter to the findings of Tresna and Raharja (2019). In addition, the situational approach is likely the method of analysis that will yield the best results. According to this tactic, the elements that have an effect on organizations are all distinct from one another, and as a result, there is no one way that can

be applied across the board for analyzing and controlling the variables (Cho & Pucik, 2005).

It was found that the path dependency theory was appropriate to the study since it describes how beginning conditions and their historical antecedents might impact ultimate results. For this reason, companies looking to gain a competitive edge should not only make use of dynamic capabilities, but also make investments in company innovations that will improve not just the products or services they provide, but also the efficiency with which they carry out their processes. This suggests that the plausibility and profitability of future investments may be determined based on the investments that are now being made by companies. (Schön, 2012).

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The purpose of this research was to determine how dynamic skills, strategic orientation, and corporate innovation impacted the competitive advantage enjoyed by firms that were listed on the NSE. The observation that top-tier listed companies that were once at the top have been unable to maintain their position of competitive advantage served as the impetus for the study. The observation that relatively new firms at the exchange have outperformed the incumbents and have managed to dominate their respective industries served as the motivation for the study. This piqued the researcher's curiosity, so they started looking into the firms that were listed on the NSE.

The specific aims of the research were as follows: (1) to assess the effectiveness of dynamic capabilities, (2) to assess the effectiveness of strategic orientation, (3) to assess the effectiveness of firm innovation, and (4) to assess the joint effectiveness of dynamic capabilities, strategic orientation, and firm innovation in providing a competitive advantage to companies listed on the NSE.

This chapter provides a synopsis of the study's findings and draws some conclusions and recommendations from them. This section also addresses the value of theory to

researchers, business people, and policymakers. Additionally, it highlights the study's limitations and highlights where more research is needed.

6.2 Summary of Findings

The purpose of this research was to examine the connection between dynamic skills and competitive advantage among NSE-traded firms with a focus on innovation and strategic orientation. In order to demonstrate this, the research outlined its four specific aims and four hypotheses. The study used a positivist research strategy and employed a cross-sectional descriptive survey research methodology. Data were collected via a standardized questionnaire that was given by a third party. One of the respondents was an executive at each of the companies that were included in the survey. All 63 businesses trading on the NSE were either domestic or had a valid foreign license from the Capital Markets Authority. Only 58 businesses were included for the final analysis after being whittled down to only 5 for the pilot research.

Forty (40) properly filled-out surveys were returned. This resulted in a 68.9 percent response rate. The research used descriptive statistics to provide light on the nature of the variables. Some examples are the average, the standard deviation, and the coefficients of variation. We employed inferential statistics to examine, clarify, and make conclusions regarding the strength of hypothesized correlations between the variables. The research hypotheses were tested using a battery of statistical methods, including multiple regressions, path analysis, simple regression, and hierarchical regression...

6.2.1 Dynamic Capabilities and Competitive Advantage

The primary purpose of this research was to ascertain the impact of dynamic skills on the competitive advantage of NSE-listed firms. With this goal in mind, it was expected that the DC design would have a major impact on the CA of firms trading on the NSE. The results of the study reveal that DC play a crucial role in CA. Sensing, capturing, and integrating skills were employed as research dimensions. Product/service quality, operating costs, and strategic market responses were used as indicators of competitive advantage.

Since the p value for the relationship between DC and CA of NSE-listed businesses was less than 0.05, the research concluded that DC had a substantial impact on CA of these companies. Since the data showed a correlation between the two variables, we cannot rule out the possibility that the dynamic capabilities construct significantly affects the competitive advantage of NSE-listed businesses. In other words, the results confirmed that dynamic capabilities are essential components of the dynamic capabilities' hypothesis (Teece, 1990), lending credence to the idea that companies who are able to adapt their resource structure to changing market conditions have a distinct edge (Purkayastha & Sharma, 2016).

The ability to incorporate, cultivate, and adapt both in-house and external resources and competencies to meet the ever-changing demands of the environment is what we mean

when we talk about dynamic capabilities. Companies with the ability to foresee and respond to new business possibilities through investments in product/service quality, low operating costs, and smart market reaction will have a distinct edge over their rivals. This lays the groundwork for identifying the various manifestations of sensing capacities across Kenyan publicly traded companies.

Having the ability to seize opportunities and the ability to integrate them into existing strategies are both crucial for companies to deal with the difficulties posed by an ever-changing business environment and to gain an advantage over rivals. Respondents were asked to indicate and rate statements about the businesses' sensing capacities and manifestation in order to collect this information. The median score for the manifestations of sensing capabilities was strong, suggesting a moderate level of sensing capabilities across the NSE-listed businesses.

Among all the statements, "the company actively seeks to acknowledge best practices in its field" was the most commonly chosen one. In this situation, the examined businesses had a good grasp on the idea that they may enhance their processes by emulating the most effective methods in their field. An edge in the marketplace may be gained via enhanced sensing skills, and this is a crucial component. The research concludes that these companies display sensing qualities, which are essential for gaining an awareness of the

market and the sector so as to react accordingly. The research looked at how prevalent the characteristics of a firm's seizing capabilities really are. The mean attribute score for seizing abilities was quite standard. This suggests a modest level of manifestation among NSE-listed firms. Workers' ability to adopt new tactics was the statement with the highest mean score.

Therefore, the findings demonstrated that at the companies examined, workers are putting into action novel tactics as a direct consequence of accurately anticipating future needs. As a result, the company will have an edge over its rivals in the market. The purpose of this research was to determine how strongly the characteristics of integrated capabilities are reflected in the sample of listed enterprises. The research shows that NSE-listed businesses, on average, exhibit the characteristics of integration skills at a level not too far from the mean. The most common remark was "we possess stronger integration compared to other organizations in the same industry."

This suggests that the NSE-listed companies are able to efficiently integrate freshly sourced capabilities with the current capabilities. In this scenario, fresh environmental knowledge does not impede the development of goods or services. All businesses, and particularly those listed on the NSE that are under pressure to beat their rivals, need to

implement integration skills since they guarantee the seamless integration of new and old routines and processes..

6.2.2 Dynamic Capabilities, Strategic Orientation and Competitive Advantage

The second purpose of the research was to determine the impact of strategic direction on the connection between the DC and CA of NSE-listed businesses. Market, Entrepreneurial, and Knowledge Orientations Were Used as the Dimensions of Strategic Orientation. The results show that NSE-listed companies have a good grasp of the significance of happy customers to their success. As a general rule, it stands to reason that a company's pursuit of customer satisfaction will aid in the establishment of a competitive advantage.

Some of the respondents said that their companies actively work to provide value for their clients. What this means is that the surveyed businesses pay close attention to what their clients want when planning their tactics for getting an edge in the marketplace. Customers are more likely to remain loyal to a company if they get consistently excellent service, and their opinions on their degree of satisfaction may help shape the direction of product development. Market orientation includes considering one's competitors.

The majority of the companies questioned said they regularly analyze their competitors' strategy. Therefore, the only way for a company to achieve more success in the market is to identify the approaches used by its rivals and develop responses to them. When companies share knowledge about their rivals' activities inside the company, it helps workers come up with creative methods to outmaneuver the competition.

When it comes to entrepreneurial spirit, the data shows that NSE-listed companies appreciate the value of taking the helm in formulating and executing plans that give them an edge in the marketplace. The Nairobi Stock Exchange also has an average level of R&D spending by its listed businesses. The results also show that senior management generally values calculated risks across the board. So, it seems that the company's leadership is encouraging a culture of calculated risk-taking.

All of the companies examined share a commitment to being first to market. Similarly, studied businesses are innovative in delivering new goods and implementing new methods, and they attempt to find, operate, and occupy new markets ahead of competition. There are several facets of strategic orientation, but one of the most important is a learner's mindset. These results indicate that NSE-listed companies have implemented procedures to guarantee that information is routinely collected, analyzed, and communicated to all relevant parties. This is crucial for gaining an edge over the competition.

Similarly, businesses that are traded on NSE have well-defined learning objectives that serve to direct employee engagement in knowledge-gathering and knowledge-sharing efforts. When workers talk to one another about problems and solutions, everyone benefits. Employees are able to learn more quickly and efficiently because to the presence of complex working teams. The results also demonstrate that businesses successfully manage internal learning across departments. In addition, the companies' upper echelons have shown a dedication to learning as an organizational strategy. Important step in making the training permanent. Despite the researchers' hopes, they found no evidence that strategic orientation moderates the previously indicated connection between the

variables. Strategic orientation had an immediate impact on competitive advantage, even if it had little effect on the connection between dynamic capabilities and competitive advantage. This lends credence to the notion of contingency, which seeks to explain the observed connections between organizational structures and their surroundings..

6.2.3 Dynamic Capabilities, Firm Innovation and Competitive Advantage

The research determined the impact that a conceptualization of corporate innovation as a mediating variable has on the connection between the DC and CA of NSE-listed businesses. In this analysis, we employ product, process, and market innovations as the company innovation dimensions. The necessity to adapt to shifting customer preferences and launch novel goods in order to carve out profitable new niches in the market has thrust the notion of business innovation to the forefront of academic inquiry. The term "firm innovation" refers to the total development of new goods, processes, methods, and markets that help a business outperform its rivals in a certain industry. Businesses that don't update and expand their offerings or embrace novel operational procedures will struggle to survive in today's cutthroat business climate.

As a result, statements were drafted for each dimension of business innovation (product, process, and market) in order to learn how respondents felt about the degree to which their own companies encouraged innovation. The research identified product innovation as a dimension of company innovation by measuring its manifestations across a variety of variables in the sample of NSE-listed firms. Average scores on measures of product

innovation's impact indicate that these features are generally evident in the market. In this light, the results show that NSE-listed businesses have a modest level of product innovation. NSE-listed companies, on average, invest a significant portion of their capital in the development of new productive assets that will provide them a strategic edge in the market. The majority of the businesses in the poll agree that it is critical to develop new offerings quickly.

Overall, NSE-listed businesses demonstrated process innovation traits to a medium degree, as shown by the mean score on all attributes. The statement "there is transformation of current resources into new processes" had the highest mean. This suggests that companies trading on the NSE place a premium on developing innovative methods to maximize productivity. When it comes to running a company efficiently and cheaply, process innovation is essential. This makes sure that everything runs well, and that the final result is what the company needs. Innovations in the way services are delivered are made possible with the use of new information technologies, or "process innovations."

In addition to giving businesses an edge in the marketplace, these advances help them better manage their stock of goods and materials. Additionally, the research uncovered how the enterprises themselves exhibit characteristics of market innovation. In general, NSE-listed firms exhibit a medium level of market innovation, as shown by the median score on this measure.

Most people agree with the statement "we employ strong anti-competitors marketing activities" (Mean=4.03, SD=0.6). This suggests that NSE-listed companies are actively pursuing new market segments from their rivals via aggressive marketing activities. It helps businesses expand into new markets while protecting their present market share. Similarly, the marketing efforts of studied businesses produce average levels of client satisfaction and retention. This indicates that businesses resort to intensive advertising as a means of generating demand in the marketplace. Research also shows that NSE-listed businesses often expand into new developing markets.

When a company successfully develops and enters new markets, it increases its market share and gains a competitive edge. By analyzing primary data on the relationships between DC, firm innovation, and CA of NSE-listed businesses and conducting tests of the resultant hypotheses, the present research determined that firm innovation serves as a partial mediator between the other two variables. The results validate route dependency theory and demonstrate the need of deploying dynamic capabilities inside businesses to foster an environment where new goods and services and enhanced processes may be developed and used to gain a competitive edge. (Schön, 2012).

6.2.4 Dynamic Capabilities, Strategic Orientation, Firm Innovation and Competitive Advantage

The research's fourth goal was to determine how the three factors of dynamic capabilities, strategic orientation, and corporate innovation contribute to the competitive advantage of NSE-listed enterprises. In order to achieve this goal, we predicted that the competitive advantage of NSE-listed firms is significantly influenced by all three of the aforementioned factors. We used multiple linear regression analysis to look for a connection between those variables and performance in the market. The research shows that the competitive advantage of NSE-listed businesses is significantly influenced by the three interrelated factors of dynamic capabilities, strategic orientation, and corporate innovation. Companies traded on the Nairobi Securities market are said to be at a competitive disadvantage if they lack dynamic skills, strategic direction, and business innovation, as stated in the summary.

However, if businesses are to raise their competitiveness and ultimately gain a competitive edge, they must expand their adoption of dynamic capabilities and firm innovation while applying strategic orientation in their day-to-day operations and processes. Positive coefficients of 0.271 for dynamic skills, 0.412 for strategic orientation, and 0.374 for company innovation all illustrate this. Positive beta coefficients show that dynamic skills, strategic orientation, and business innovation all play a significant role in determining CA of NSE-listed enterprises. The ability to reorganize one's resources while simultaneously investing in one's own invention is a key to success, as the DC theory explains (Purkayastha & Sharma, 2016).

6.3 Conclusion

The primary purpose of this study was to analyze the dynamic capabilities-competitive advantage link of NSE-listed firms with respect to innovation and strategic orientation. A questionnaire covering the variables of interest was constructed, and responses were used to inform a statistical model. The overall aim was reached by computing a composite of the constructs, and the hypothesis was evaluated to see whether it held up. The first stated objective of the research was met: a statistically significant correlation between DC and CA was found among NSE-listed firms. The report concludes from these findings that DC are crucial in assisting NSE-listed businesses in gaining a competitive edge. This lends credence to the dynamic capabilities (DC) idea, which postulates that companies with the ability to restructure their resource base would have a competitive edge. The results surpass those of Deya et al. (2016), Schilke (2014), and Teece (2014), and they disprove the arguments of Peteraf et al. (2013), who argued that DC cannot result in an advantage but rather leads to competitive parity, due to the substantial expenditures necessary for the deployment.

Concerning the second aim, we found that strategic orientation did not significantly moderate the impact of CA on NSE-listed enterprises. The research found that strategic orientation had no effect on the competitive advantage brought forth by dynamic capabilities. The results of this study run counter to those of Ferreira and Coelho (2019), who found that strategic orientation affected the dynamic capabilities-competitive advantage connection of 387 Portuguese SMEs in a positive and statistically significant

way. As for the third, it was accomplished by putting the premise that company innovation has no moderating influence on the connection between dynamic capacities and competitive advantage of NSE-listed businesses to the test. Analysis revealed that corporate innovation served as a mediator, but only to a limited extent. This research suggests that firms with dynamic skills are better able to innovate and outperform their competitors.

The results corroborate the path dependency theory and demonstrate the importance of deploying dynamic capabilities within businesses, as doing so fosters innovation within the company and leads to the development of novel products and services and the enhancement of existing ones, both of which can be used to gain a market advantage (Schön, 2012). Alon and Cui (2011), Darawong (2018), and Ferreira and Coelho (2019) all concur with these results. Ren et al. (2016) came to the conclusion that companies need to foster an innovative culture among their ranks to better adapt to the requirements of their customers and increase the effectiveness of their day-to-day operations. The final aim was to determine how DC, SO, and FI all influence CA of NSE-listed enterprises as a whole. This was accomplished by rejecting the assumption that there is no statistically joint influence of dynamic capabilities, strategic orientation, and company innovation on CA.

We reject the null hypothesis and conclude that CA of NSE listed businesses is simultaneously and statistically affected by dynamic capabilities, strategic orientation, and company innovation. According to the findings, a company may gain a significant competitive edge by making use of dynamic skills, maintaining a strategic focus, and

funding internal innovations. This research also suggests that dynamic capabilities, strategic orientation, and business innovation are to blame for the differences in competitive advantage across NSE-listed firms. These results are consistent with the claims made by Ferreira and Coelho (2019) that dynamic capabilities, strategic orientation, and company innovation significantly affect competitive advantage. This research found that dynamic capacities, strategic orientation, and company innovation did not collectively enhance competitive advantage, whereas Tresna and Raharja (2019) found the opposite to be true..

6.4 Implications of the Study

The purpose of this research was to determine whether or not NSE-listed companies' DC had any effect on their CA. It was speculated that the degree of strategic orientation and the degree of innovation within a company would act as moderators and mediators, respectively. Independent variable was the dynamic capabilities construct, while the dependent variable was the competitive advantage. Strategic orientation was shown to have no statistically significant impact on the competitive advantage of NSE-listed businesses..

6.4.1 Implications for Theory

The findings showed that dynamic capabilities are significant contributing buiding-blocks in the Dynamic Capabilities Theory (Teece, 1990). Firms may be required to create, extend or modify resources and capabilities to acquire the right firm characteristics to a realize competitive advantage. This supports the DC theory that firms that are able to reconfigure their resource base and competences acquire competitive advantage (Teece, 2012) and enjoy market superiority e as they are able to expand their market share (Purkayastha & Sharma, 2016).

Additionally, firms should modify their resource base and ensure flexibility in their processes in order to gain competitive advantage (Deya, 2016; Schilke, 2014; Teece, 2014). Despite the fact that strategic orientation did not significantly influence the DC-CA relationship, strategic orientation had a direct influence on competitive advantage. This supports contingency theory which aims at explaining the apparent interrelationships amongst organizational systems and their environment.

It increases the knowledge that the appropriateness of different strategic orientations adopted by a given firm are dependent on organizational and environmental contingencies. The firm segments are characterized by adaptation to each other and environment with equifinality in realizing set objectives (Pratono, 2016). In this case, organizations constantly assessing their environments before crafting appropriate strategies is important in understanding strategic orientation and competitive advantage (Ferreira & Coelho, 2019).

The third objective of establishing the mediating role of firm innovation in DC-CA relationship supports path dependency theory. Path dependency theory indicates that initial conditions and their historical antecedents shape eventual outcomes (Klingebiel & Rammer, 2014). Current investments and decisions of organizations can determine the plausibility and profitability of future investments and therefore, firms should deploy dynamic capabilities since they create a conducive environment for firm innovation and thereby create new products/services as well as improved processes for a competitive advantage (Schön, 2012).

Findings showed that DC, strategic orientation, firm innovation, and competitive advantage all had significant influences on NSE-listed companies when taken together. The results have been grounded on the Dynamic Capabilities Theory (Teece, 1990), Contingency theory (Thompson, 1967), Path dependency theory (David, 1985) and Innovation theory (Schumpeter, 1934). The findings have also supported previous study by Ferreira and Coelho (2019), which established the joint influence of DC, strategic orientation, firm innovation and competitive advantage.

6.4.2 Policy Implications

According to the results, the competitive advantage of NSE-listed businesses may be attributed in large part to the enterprises' innovativeness, strategic orientation, and dynamic skills. The numerous sectors represented by these enterprises are vital to the nation's economic progress and considerably raise the gross domestic product. The Kenyan government's Vision 2030 development plan aspires to make the country a middle-income economy.

This research will aid the government in making choices as it works to put Vision 2030 into effect by analyzing the many sectors represented by listed firms, all of which are essential to the achievement of this objective. The many listed firms that employ their sensing, seizing, and integrating skills in their operations to cut costs while delivering high-quality and unique goods is proof of DC's effect on competitive advantage. Therefore, in order to safeguard the firms in these numerous areas and boost their competitiveness, the government should establish authoritative laws and develop long-lasting policies.

Decision-makers at NSE-listed businesses may benefit from the study's findings. To better assist companies in meeting their responsibilities under the CMA Act, Cap 485 A, this research may be useful to the Capital Markets Authority in developing strategic policies and regulations. The policy holder may be able to establish strategies to reform the listed enterprises and ensure that Kenya is competitive on a worldwide scale in doing business

and participating in advocacy that encourages economic progress. The findings of this research will also be useful to the relevant authorities in formulating laws and regulations that will assist firms in improving their environmental scanning and policy implementation in order to gain a competitive edge. The results show that business innovation is critical for transforming dynamic capabilities into a sustainable competitive advantage. Companies need to innovate in order to succeed in today's market. This includes developing new goods, methods, and advertising approaches. Businesses should similarly enhance and invest in technology that will manufacture items of high quality at reduced manufacturing costs.

The results of this research will also show how company leaders may employ new technologies and distributed coordination to set themselves apart from rivals. This research will show policymakers why it's crucial for listed firms to provide timely and complete data. Inadequate data leads to poorly drafted policies. The data will be valuable to both present and future investors as well as those who design policy. Research results will help policymakers in Kenya solve the challenges facing the country's industrial sector and improve its capacity to compete globally.

6.4.3 Implications to Management Practice

Conclusions Dynamic capacities and competitive advantage of NSE-listed businesses are linked via corporate innovation. To that end, it's important for business owners and managers to take this relationship into account when formulating company rules and procedures. Furthermore, this research confirmed that a competitive advantage cannot be gained by focusing on a single dimension of dynamic capabilities. The company's detecting powers allow it to detect shifts in the surrounding environment, and its capturing abilities allow it to capitalize on emerging openings. To get an edge in the market, it is necessary to combine established procedures with newly learned skills.

Consequently, listed organizations need knowledge of the DC dimensions before they can effectively integrate them into their operations. The study's conclusions should be helpful for managers who are looking to stay competitive in today's dynamic business climate. Considering the importance of DC-CA relationships, the finding that innovation inside firms mediates the connection has major implications for management. Managers should put resources towards creating novel processes, products, and markets in addition to enhancing existing dynamic capabilities. There was a high association between firm innovation and competitive advantage, showing that leaders need to focus on what will give their companies a leg up on the competition.

Among the businesses listed on the NSE, the results that DC, strategic direction, and company innovation have a strong combined influence on competitive advantage highlight the importance of combining these elements. Companies trading on the NSE are highly encouraged to strengthen their sensing, seizing, and integration skills in addition to adopting a strategic orientation that includes market orientation, entrepreneurial

orientation, and leaning orientation. They'll have an edge in the market as a result of their superior use of novel, differentiated skills and procedures.

Management experts will be able to use the study's results to better prepare their organizations for the future in light of the difficulties encountered by publicly traded companies, making them more formidable competitors in their chosen fields. Dynamic capabilities can help businesses revive their processes and resources while eliminating waste. By boosting the efficiency of their operations, the firms will also be able to responsibly spend their money in high-quality goods while cutting manufacturing costs. Businesses may get an advantage over their competitors by increasing their market share and entering new areas via the use of innovative marketing strategies...

6.5 Recommendations of the Study

The study found that NSE-listed firms' competitive advantage was highly impacted by their dynamic capabilities. Based on the findings, it is suggested that NSE-listed firms should develop plans to guarantee the use of dynamic capabilities, since doing so promotes innovation inside the company. As a result, a company's ability to innovate will increase its resilience to environmental shocks and provide it an edge in the marketplace. Therefore, the research suggests that dynamic capabilities be embraced by policymakers in order to realize Kenya's Vision 2030. In addition, it suggests bolstering the economy's competitiveness across all sectors by passing legislation with teeth and crafting long-term policies that shield publicly traded companies like those mentioned above. Further, the report suggests that policy makers like the Capital Markets Authority create plans to change

the listed firms and make Kenya more internationally competitive for business. Companies need guidance from the government on how to analyze their surroundings and how to put those findings into practice in order to get a competitive edge.

The study's findings highlight the significance of innovative corporate practices in converting dynamic capabilities into a market advantage. The study's results indicate that firms' innovativeness mediates the connection between their dynamic capacities and the competitive advantage of NSE-listed firms. As a result, the ability of a company to innovate is crucial in turning its dynamic skills into a sustainable competitive advantage. Therefore, the research suggests that publicly traded companies prioritize innovation in order to surpass their competitors. Businesses should put money into improving technologies that both increase product quality and reduce manufacturing costs.

Furthermore, this research confirmed that a competitive advantage cannot be gained by focusing on a single dimension of dynamic capabilities. The company's detecting powers allow it to detect shifts in the surrounding environment, and its capturing abilities allow it to capitalize on emerging openings. To get an edge in the market, it is necessary to combine established procedures with newly learned skills. The research recommends that business leaders integrate all parts of dynamic capabilities into routine operations. The research shows that the competitive advantage of NSE-listed businesses is significantly influenced by dynamic capabilities, strategic direction, and corporate innovation. Companies trading on the NSE should integrate all essential aspects to get a competitive edge. Companies

should allocate resources toward innovation within the company, as well as the building of dynamic capabilities and a strategic focus. They'll be better able to leverage novel approaches and technologies to increase their competitive advantage..

6.6 Areas of New Knowledge

The role of evolving capabilities in enhancing an organization's competitiveness and profitability remains a hot topic in the field of management studies. Scientists have shown that by using them, organizations may update their processes and routines in a methodical, efficient, and systematic way that helps them adapt to the ever-changing external environment (Karman & Savaneviciene, 2021; Schilke, 2014). Nonetheless, there is much debate on how they contribute to a company's competitive edge. There is a direct link, as has been shown in certain studies. In their analysis of 227 Chinese manufacturing enterprises using structural equation modeling, Cui and Jiao (2011) discovered the importance of dynamic skills in gaining a competitive edge.

Dynamic skills provide a competitive advantage, as shown in a study of 270 Australian service and industrial firms conducted by Kachouie et al. (2018). This research not only confirms these findings but also furthers our knowledge of the causal relationship between DC and CA. According to the research of Pehrsson (2016), a company's long-term success and financial stability depend on the company's strategic orientation, which determines the company's goals, objectives, and strategies. Ferreira and Coelho (2019) found that SO attenuate the link between DC and CA in their study of 387 Portuguese SMEs using structural equation modeling. However, this investigation did not back up these assertions. It broadens our knowledge of how situations and statistical approaches may produce varying results.

In contrast to conventional wisdom, Tresna and Raharja (2019) argue that dynamic capabilities, which they define as "organizational processes that form resources and competences," do not always result in CA but do generate value by stimulating and facilitating the inventiveness of businesses. The role of innovation inside businesses as a mediator between the two variables was crucial to understand. Using hierarchical regression, Jiménez and Fuentes (2013) found that the link between the two variables in Spanish technology-based SMEs is entirely mediated by company innovation. Similar results were found by Ferreira and Coelho (2019) in their investigation of 387 Portuguese SMEs. In contrast, the new research found that innovation inside businesses moderates the link between DC and CA. Thus, it deepens our appreciation for how different settings and statistical approaches might influence the mediation of any given notion. It enriches our knowledge of the importance of business innovation in reaching CA's goals. More research on additional variables that might have an impact on the relationship between DC and CA is encouraged by Jurksiene and Pundziene (2016). This research adds to the existing body of knowledge by showing how strategic focus, flexible resources, and creative thinking all work together to provide companies a major advantage. When it comes to explaining the increased variation in the dependent variable that is explained by these predictor factors, studies that focus on all the constructs rather than just one are given greater weight.

6.7 Limitations of the Study

The aim of this study was to determine how the identified variables and their relationships affected the competitive advantage of companies listed at NSE. Despite meeting this objective, the study had some limitations. Nevertheless, adequate mitigation measures were put in place in order to preserve the quality of the results. The study utilized quantitative data collected using a structured questionnaire. This is a limitation from using positivism philosophy of quantifying social phenomena instead of using qualitative methods of data collection. However, this limitation was mitigated by extensive operationalization of the study variables by using past research and incorporating opinions of strategy experts during research instrument development. The study utilized cross-sectional survey to observe variables and make inferences at a particular point in time. In spite the appropriateness of this research design to the study, monitoring the changes in variables and their resulting relationships is not possible as compared to when longitudinal research design is adopted. Another limitation was the use of one respondent for each of the researched firms. The study targeted one respondent in management per firm and consequently the possibility of single source bias as well as personal bias. This could result in individualized perceptions in place of homogeneous generalization of all the firms listed at NSE. Nevertheless, the unit of analysis was the listed firms and the individuals who responded to the questionnaire understood the workings of the firm and are able to discern the various aspects of the operations.

Limiting attention to just those firms registered on the NSE was also a clear restriction. Firms from a variety of Kenyan economic sectors are included in the list. There are a lot of firms in several growth areas, but not many of them have chosen to be listed on the NSE. Therefore, the study's conclusions may not apply to businesses that aren't publicly traded in any way. In all, 58 businesses were asked to participate in the survey. Over half (60%) of the surveys were completed and returned. A 68.9 percent response rate was judged high enough for analysis to proceed without biasing the results. Aggregate statistics were used to quantify competitive advantage factors on the premise that these variables had not changed and that competitive advantage was a result of incorporating dimensions of dynamic capabilities. The study's integrity was maintained in spite of these caveats. The author insists that the problems raised did not have any impact on the findings, methodology, production, or progress made in the thesis.

6.8 Suggestions for Further Research

In this study, competitive advantage served as the dependent variable, with strategic orientation serving as the independent variable, and firm innovation serving as the moderating and mediating variables, respectively. Future research should use longitudinal studies to check for causal effects. Since the current study was cross-sectional, a longitudinal study might reveal whether the results change over time. It might also show how DC impact competitive advantage as the environment becomes more unpredictable due to rising competition, an expanding regulatory environment, and shifting customer preferences. The other idea for additional research is to look into how firm innovation and

strategic orientation directly affect the competitive advantage of companies listed on the NSE.

The scope of this study should be broadened by potential future research that incorporates organizational structure and leadership styles, among other important organizational variables, into the research framework. This might make the study's insignificant findings easier to explain and comprehend. Examining the functions of human, financial, and technological resources may aid in understanding the competitive advantage that some businesses in the Kenyan economy currently enjoy.

In order to determine whether the conclusions of this study can be applied to other contexts of Kenya's economic units, prospective research studies should concentrate on organizations other than the companies listed at the NSE. For instance, coverage of companies operating in various sectors, both listed and unlisted, should be included in future research. The senior manager who provided this study with the vast knowledge of the company's operations served as the sole informant. Multiple respondents from each company may be used in future studies to facilitate data collection. To analyze and draw conclusions about the differences between these respondents regarding the study variables, multiple respondents may be chosen from a variety of departments, including marketing, finance, and different management levels.

Finally, even though multivariate analysis, which was employed in this study to test a variety of hypotheses, was sufficient, future studies could make use of other statistical

methods, such as structural equation modeling. These methods could strengthen the explanation of the resulting relationships between the study variables while improving understanding of the variables through the use of path coefficients. Future research may employ a variety of methodologies, such as quantitative and qualitative approaches, to identify the key elements that contribute to the competitive advantage of companies listed on the NSE. The validity and applicability of the current research findings would be improved by the use of other statistical techniques.

REFERENCES

Alharahsheh, H. H. & Pius, A. (2020). A Review of key paradigms: positivism VS interpretivism. *Global Academic Journal of Humanities and Social Sciences*, 2 (3), 39-43.

Aluisius Hery Pratono, (2016). Strategic orientation and information technological turbulence: Contingency perspective in SMEs, *Business Process Management Journal*, 22 (2), 368-382.

Areias, J. S. & Eiriz, V. (2013). Building competitive advantage through inter organizational projects. *Strategic Direction*, 29 (9), 31-34.

Arthur, W.B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *Economic Journal*, 99 (394), 116-131.

Asiamah, N., Mensah, H. K. & Oteng-Abayie, E. F. (2017). General, Target, and Accessible Population: Demystifying the Concepts for Effective Sampling, *The Qualitative Report*, 22 (6), 1607-1622.

Augier, M. and Teece, D.J. (2007). Dynamic capabilities and multinational enterprise: Penrosean insights and omissions. *Management International Review*, 47(1), 175–192.

Babbie, E. (2010). The Practice of Social Research,12th ed. Wadsworth Cengage Learning.

Balodi, K.C. (2014). Strategic orientation and organizational forms: an integrative

framework. *European Business Review*, 26 (2), 188-203.

Balodi, K. C (2020). Strategic orientations and performance of young ventures; Moderating role of environmental turbulence, *Management Decision* 58 (4), 666-686.

Barney, J.B., Ketchen, D.J. & Wright, M. (2011). The future of resource-based theory: revitalization or decline? *Journal of Management,* 37 (5), 1299-1315.

Besley, D.A., Kuh, E. & Welsch, R.E. (1980). *Regression Diagnostics.* Identifying influential Data and Sources of Collinearity. Wiley Interscience, New York.

Bitencourt, C.C., Santini, F.D., Ladeira, W., Santos, A.C. & Teixeira, E.K. (2020). The extended dynamic capabilities model: a meta-analysis, European *Management Journal*, 38 (1), 108-120

Brem, A., Maier, M. & Wimschneider, C. (2016). "Competitive advantage through innovation: the case of Nespresso*", European Journal of Innovation Management*, 19 (1), 133-148.

Bryman, A. (2016). *Social research methods*. Oxford university press.

Bogers, M., Chesbrough, H., Heaton, S. & Teece, D.J. (2019). Strategic management of open innovation: a dynamic capabilities perspective, *California Management Review*, 62 (1), 77-94.

Boulding, K., (1956) "General Systems Theory - The Skeleton of Science", *Management*

Science, 2 (1), 197-208.

Čirjevskis, A. (2017) Unbundling dynamic capabilities in successful Asian-Pacific shipping companies, *Journal of Asia Business Studies*, 11 (2), 113-134.

Chahal, H., Dangwal, R.C. & Raina, S. (2016). Marketing orientation, strategic orientation and their synergistic impact on business performance: A case of SMEs in emerging context (India). *Journal of Research in Marketing and Entrepreneurship,* 18 (1), 27-52.

Chakrabartty, S. N. (2013). Best split-half and maximum reliability. *IOSR Journal of Research & Method in Education*, 3 (1), 1-8.

Chen, T. & Lin, F. (2011) Using relationship norms to create appropriate relationship value; evidence from the credit card industry. *Journal of Relationship Marketing* 10 (1), 28-42.

Chen, J., Jiao,H. & Zhao, X. (2016). A knowledge-based theory of the firm: managing innovation in biotechnology, *Chinese Management Studies*, 10 (1), 41-58.

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Lawrence Erlbaum Associates Publishers.

Cooper, D.R.& Schindler, P.S. (2014). *Business Research Methods,* 11th, ed. McGraw-Hill McGraHill.

Creswell, J. W., & Clark, V. L. P. (2017). *Designing and conducting mixed methods research*. New York: Sage publications.

Cronbach, L. & Shavelson, R. (2004). My Current Thoughts on Coefficient Alpha and Successor Procedures. *Educational Psychological Measurement*, 64 (3), 391-418.

Cross, B. (2013). *Lean Innovation*, New York, NY: Productivity Press.

Dabic, M., Cvijanović,V. & González-Loureiro, M. (2011). Keynesian, post-Keynesian versus Schumpeterian, neo-Schumpeterian: An integrated approach to the innovation theory, *Management Decision*, 49 (2), 195-207.

Darawong, C. (2018). Dynamic capabilities of new product development teams in performing radical innovation projects, *International Journal of Innovation Science*, 10 (3), 333-349.

David, P. (1985). Clio and the economics of QWERTY, *American Economic Review*, 75 (2), 332- 337.

Dobusch, L. & Schüßler, E. (2013). Theorizing path dependence: a review of positive feedback mechanisms in technology markets, regional clusters, and organizations, *Industrial and Corporate Change*, 22(3), 617-647.

Drnevich, P.L. & Kriauciunas, A.P. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance, *Strategic Management Journal*, 32 (3), 254-279.

Drucker, P.F. (2002). The discipline of innovation, *Harvard Business Review*, 80 (8), 95-103.

Duan, Y. (2013). Explicating dynamic capabilities for corporate sustainability. *EuroMed Journal of Business*, 8 (3), 255-272.

Eidizadeh, R., Ashrafi,S.S & Chitsaz,A. (2017). Analyzing the role of business intelligence, knowledge sharing and organisational innovation on gaining competitive advantage, *Journal of Workplace Learning* 29 (4), 250-267.

Elliott, A. C., & Woodward, W. A. (2007). *Statistical analysis quick reference guidebook: With SPSS examples*. Sage.

Fereeira, J. & Coelho, A. (2019). Dynamic capabilities, innovation and branding capabilities and their impact on competitive advantage and SME's performance in Portugal: the moderating effects of entrepreneurial orientation. *International Journal of Innovation Science*, 13 (2), 1757-2223.

Field, A. (2000). *Discovering Statistics using SPSS for Windows*. London–Thousand Oaks –New Delhi: Sage publications.

Gärtner, C. & Schön, O. (2016). Modularizing business models: between strategic flexibility and path dependence. *Journal of Strategy and Management*, 9(1), 39-57.

Gomes, G., Seman, L. O., Berndt, A. C., & Bogoni, N. (2021). The role of entrepreneurial

orientation, organizational learning capability and service innovation in organizational performance. *Management Decision*, 38 (4), 1186-1202

Grant, R.M. (2013). *Contemporary Strategy Analysis: Text and Cases*, Chichester: John Wiley & Sons.

Hakala, H. (2011). Strategic orientations in management literature: three approaches to understanding the interaction between market, technology, entrepreneurial and learning orientations. *International Journal of Management Reviews*, 13 (2), 199-217.

Hakala, H. & Kohtamäki, M. (2011). Configurations of entrepreneurial- customer- and technology orientation: Differences in learning and performance of software companies, *International Journal of Entrepreneurial Behavior and Research*, 17 (3),757-923.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis, Upper Saddle River, NJ: Pearson Prentice Hall.

Hair, J. F., Money, A. H., Samouel, P., & Page, M. (2010). Research Methods for Business. Chichester: John Wiley & Sons Ltd.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Helfat, C.E. & Raubitschek, R.S. (2007). Product sequencing: Co-evolution of knowledge, capabilities and products. *Strategic Management Journal Special Issue*, 21 (10-

11), 961- 979.

Igwenagu, C. (2016). *Fundamentals of Research Methodology and Data Collection*. LAP Lambert Academic Publishing.

Jansen, J. J. P., Simsek, Z., & Cao, Q. (2012). Ambidexterity and performance in multiunit context. Cross-level moderating effects of structural and resource attributes, *Strategic Management Journal*, 33 (11), 1286-1303.

Jiao, H. Alon, I. & Cui, Y. (2011) Environmental dynamism, innovation, and dynamic capabilities: the case of China, *Journal of Enterprising Communities: People and Places in the Global Economy*, 5 (2), 131-144.

Jiménez, J.M. & Fuentes, M.M (2013) "Knowledge combination, innovation, organizational performance in technology firms", *Industrial Management & Data Systems*, 113 (4), 523- 540.

Jiao, H., Alon, I., Koo, C.K. & Cui, Y., (2013). When should organizational change be implemented? The moderating effect of environmental dynamism between dynamic capabilities and new venture performance. *Journal of Engineering and Technology Management*, 30 (2), 188-205.

Jon-Arild, J. (2013). Innovation: a systemic perspective – developing a systemic innovation theory. *Kybernetes*, 42 (8), 1195-1217.

Jose-Luis, H., Francisca, S., & Carles, B. (2014). Process innovation strategy in SMEs,

organizational innovation and performance: a misleading debate? *Small Business Economics,* 43(4), 101-120.

Jurksiene, L. & Pundziene,A. (2016). The relationship between dynamic capabilities and firm competitive advantage: The mediating role of organizational ambidexterity, *European Business Review,* 28 (4), 431-448.

Kachouie, R. Mavondo, F. & Sands, S. (2018). Dynamic marketing capabilities view on creating market change, *European Journal of Marketing,* 52 (6), 1007-1036.

Kajalo,S. & Lindblom, A. (2015). Market orientation, entrepreneurial orientation and business performance among small retailers, *International Journal of Retail & Distribution Management,* 43 (7), 580-596.

Kalali, N.S & Heidari, A. (2016) "How was competitive advantage sustained in management consultancies during change: The role of dynamic capabilities", *Journal of Organizational Change Management,* 29 (5), 661-685.

Kamboj, S. & Rahman, Z. (2017). Market orientation, marketing capabilities and sustainable innovation: The mediating role of sustainable consumption and competitive advantage. *Management Research Review,* 40(6), 698-724

Karani, W. J., Aosa, E., Awino, B. Z., & Njihia, J. (2018). Relationship between Business Process Outsourcing and Performance of Oil and Gas Distribution Firms in Kenya. *Journal of Strategic Management*, 2 (1), 71-86.

Kareem, M.A. & Alameer, A.A.A. (2019). The impact of dynamic capabilities on organizational effectiveness. Management and Marketing, *Challenges for the Knowledge Society*, 14 (4), 402-418.

Karman, A. & Savaneviciene, A. (2021). Enhancing dynamic capabilities to improve sustainable competitiveness: insights from research on organizations of the Baltic region, *Baltic Journal of Management*, 16 (2), 318-341

Karna, A., Richter, A. & Riesenkampff, E. (2015). Revisiting the role of the environment in the capabilities: financial performance relationship: a meta-analysis. *Strategic Management Journal*, 37 (6), 1154-1173.

Keraro, V.N. (2014). Role of Governance in the Strategic Management of Counties in Kenya. Unpublished PhD Thesis, Juja: JKUAT.

Kihara, A. S. N., Ngugi, P. K. & Ogollah, K. (2016). Influence of Dynamic Capabilities on Performance of Large Manufacturing Firms in Kenya. *International Journal of Business Strategy*, 2, (1), 106- 126

Klingebiel, R., & Rammer, C. (2014). Resource allocation strategy for innovation portfolio management. *Strategic Management journal*, 35(2), 246-268.

Kothari, C.R. (2009). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers.

Kumar, K. Boesso, G., Favotto,F. & Menini, A. (2012). Strategic orientation, innovation

patterns and performances of SMEs and large companies. *Journal of Small Business and Enterprise Development*, 19 (1),132-145.

Kristina, B. Nedzinskas, S. (2017). Dynamic capabilities and their impact on research organizations' R&D and innovation performance. *Journal of Modelling in Management*, 12 (4),603-630.

Kyläheiko, K., Jantunen, A., Puumalainen, K., Saarenketo, S. & Tuppura, A. (2011). Innovation and internationalization as growth strategies: The role of technological capabilities and appropriability. *International Business Review*, 20 (5), 508-520.

Li, D. & Liu, J. (2014). Dynamic capabilities, environmental dynamism, and competitive advantage: evidence from China, *Journal of Business Research,* 67(1), 2793-2799.

Lin R.J., Tan K.H., & Geng Y. (2013). Market demand, green product innovation and firm performance: Evidence from Vietnam motorcycle industry", *Journal of Cleaner Production*, 40(1), 101-107.

Lin, C. & Tsai, H. (2016). Achieving a firm's competitive advantage through dynamic capability. *Baltic Journal of Management*, 11 (3), 260-285.

Lin, C., Wu, Y.J., Chang, C., Wang, W. & Lee, C.Y. (2012). "The alliance innovative performance of R&D alliances – the absorptive capacity perspective", Technovation. *Chinese Management Studies,* 10 (1), 41-58.

Li, Y., Zhao, Y., Tan, J. & Liu, Y. (2008). Moderating Effects of Entrepreneurial Orientation on Market Orientation-Performance Linkage: Evidence from Chinese Small Firms, *Journal of Small Business Management* 46 (1), 113–133.

Lichtenthaler, U. (2011). Open innovation: past research, current debates, and future directions. *Academy of Management Perspectives*, 25 (1), 75-93.

Lin, C. & Tsai, H. (2016). Achieving a firm's competitive advantage through dynamic capability, *Baltic Journal of Management*, 11 (3), 260-285.

Linden, A.I, Bitencourt, C. & Neto, H. F. (2019). Contribution of knowing in practice to dynamic capabilities, *The Learning Organization*, 26 (1), 60-77.

Marshall, C., & Rossman, G. B. (2014). *Designing qualitative research*. Sage publications.

Mathews, J.A. (2010). Lachmannian insights into strategic entrepreneurship: resources, activities, and routines in desequilibrium world. *Organization Studies*, 31 (1), 219-244.

Mathooko, F. M & Ogutu, M. (2015). Porter's five competitive forces framework and other factors that influence the choice of response strategies adopted by public universities in Kenya, *International Journal of Educational Management*, 29 (3), 334-354.

Mbonoka, E.M. (2015) Marketing Orientation and Business Performance of Mobile Phone Companies in Kenya. *Unpublished MBA thesis.*

McGrath, R.G. (2013). Transient advantage, *Harvard Business Review*, 91 (6), 62-70.

Mkalama, R. N. & Machuki, V. N. (2019). Top Management Demographics and Performance: An Empirical Investigation of Kenyan State Corporations, *International Journal of Business Administration*, 10, (1), 1-19.

Mu J., Peng G., & McLachlan D.L. 2009. "Effect of risk management strategy on NPD performance". *Technovation,* 29 (3), 170-180.

Mugenda, O. M. & Mugenda, A. G. (2003). *Research methods Methods*.

Mugo, S.N (2015). Innovations And Performance of Kenya's Wine Industry. *Unpublished MBA thesis.*

Myoung. (2008). Univariate Analysis and Normality Test Using SAS, Stata, and SPSS.

Technical Working Paper. The University Information Technology Services (UITS) Center for Statistical and Mathematical Computing, Indiana University." *Nairobi Securities Exchange financial journals*.

Nakola, J.O, Tarus B.K, & Buigut, K. (2015). Effect of Strategic Orientation on Performance of Small and Medium Enterprises: Evidence from Kenya, *International Journal of Economics, Commerce and Management*, 3(11), 336-351.

Nieves, J., Quintana, A. & Osorio, J. (2016). Organizational knowledge, dynamic capabilities and innovation in the hotel industry, *Tourism and Hospitality Research*,

16 (2), 158-171.

Nganga, U. M. (2013). Strategic leadership and performance of manufacturing firms in Kenya, MBA Thesis (Unpublished), Nairobi: University of Nairobi.

Ogunkoya, O. A, Hassan, B. A &Shoboya, P.B. (2018). Dynamic capabilities and Competitive Advantage: An analysis of the Nigerian Banking Sector, *Journal of accounting and management*, 4 (2), 29-36).

Ombaka, B. E. (2014). Resources, external environment, innovation and performance of insurance companies in Kenya. (Unpublished PhD Thesis) Nairobi: University of Nairobi.

Oyugi, W. O. (2006). Public Service Reform in Kenya: Lessons and Experiences. *Public Sector Reform in Eastern and Southern Africa: Issues and Challenges,* 35-65.

Osamu S., (2015). Unpacking performance benefits of innovation ambidexterity: Evidence from the pharmaceutical industry. *Management Review,* 26 (4), 328-348.

Pallant, J., (2010). SPSS survival manual: A step by step guide to data analysis using the SPSS program. 4th Edition, McGraw Hill, New York.

Pavlou, P.A. & El Sawy, O.A. (2011). "Understanding the elusive black box of dynamic capabilities", *Decision Sciences*, 42 (1), 239-273.

Peat, J., & Barton, B. (2005). Continuous data analyses: correlation and regression. *Medical statistics: a guide to data analysis and critical appraisal*, 156-

201.

Pehrsson, A. (2016). Firm's strategic orientation, market context, and performance: Literature review and opportunities for international strategy research. *European Business Review*, 28 (4), 378-404.

Penrose, E.T. (1959). *The Theory of the Growth of the Firm*. Basil Blackwell: Oxford. Reprinted 1995, Oxford University Press.

Peteraf, M., Stefano, G.D. and Verona, G. (2013). The elephant in the room of dynamic capabilities: bringing two diverging conversations together, *Strategic Management Journal*, 34 (12), 1389-1410.

Porter, M.E. (1991). Toward a dynamic theory of strategy, *Strategic Management Journal*, 12(1), 95- 117.

Pundziene A., Nikou S. & Bouwman, H. (2021). The nexus between dynamic capabilities and competitive firm performance: the mediating role of open innovation, *European Journal of Innovation Management*, 10 (9), 1460-1060.

Poutanen, P., Soliman, W. & Ståhle, P. (2016). The complexity of innovation: an assessment and review of the complexity perspective, *European Journal of Innovation Management*, 19 (2), 189-213.

Pratono, A. H. (2021). Reinterpreting excellence for sustainable competitive advantage: the role of entrepreneurial culture under information technological turbulence, *An*

International Business Journal 38 (4), 1186-1202.

Purkayastha, A. & Sharma, S. (2016). Gaining competitive advantage through the right business model: analysis based on case studies, *Journal of Strategy and Management,* 9 (2), 138-155.

Rauch, A., Wiklund, J., Lumpkin, G.T. & Frese, M. (2009). Entrepreneurial orientation and business performance: an assessment of past research and suggestions for the future, *Entrepreneurship Theory & Practice*, 33 (3), 761-787.

Ren, R., Yu, L. & Zhu, Y. (2016). Innovation-orientation, dynamic capabilities and evolution of the informal Shanzhai firms in China: A case study, *Journal of Entrepreneurship in Emerging Economies*, 8 (1), 45-59.

Ryan, B., Scapens, R. & Theobald, M. (2002). *Research method and methodology in finance and accounting.* 2nd ed. Thomson

Sandor, L., Jeroen, K. & Aard J. G. (2019). Antecedents and effects of individual absorptive capacity: a micro-foundational perspective on open innovation. *Journal of Knowledge Management*, 21 (6), 1319-1341.

Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business student's* 6th ed.). Pearson Education Limited

Schumpeter, J.A. (1934). *The Theory of Economic Development*, Cambridge, MA: Harvard University Press.

Schön, O. (2012). Business model modularity – a way to gain strategic flexibility?

Controlling & Management, 56 (2), 73-78.

Schoonnoven C. (1981). *Problems with Contingency Theory*: Testing Assumptions Hidden with m the language ASQ 26.

Sekaran, U., & Bougie, R. (2009). *Research methods for business: A skill building approach.* Cornwall: Wiley

Sharma, S. & Rai, A. (2015). Adopting IS process innovation in organizations: the role of IS leader's individual factors and technology perceptions in decision making, *Europe Journal of Information Systems*, 24 (1), 23-37.

Sivusuo, J. (2019). *Dynamic capabilities – myth or real deal for sustaining competitive advantage*, Doctoral thesis, Acta Wasaensia, available at: https://osuva.uwasa.fi/bitstream/handle/10024/8168/978-952-476-841 2.pdf?sequence51&isAllowed5y.

Steward F., Wang Y., & Tsoi J. 2008. "Direct measurement of innovation output using documentary and digital sources". *Report for measuring eco-innovation project. European Commission and European Environment Agency, Brussels.*

Teece, D.J. (2007). Explicating dynamic capabilities: the nature and micro-foundations of (sustainable) enterprise performance. *Strategic Management Journal*, 8(13), 1319-1350.

Teece, D.J. (2014). The foundation of enterprise performance: dynamic and ordinary capabilities in an economic theory of firms, *The Academy of Management*

Perspectives, 28 (4), 328-352.

Teece, D. & Pisano, G. (1994). The dynamic capabilities of firms: an introduction. *Industrial and Corporate Change,* 3 (1), 537–556.

Thompson, JD. (1967) *Organizations in Action*, McGraw-Hill, New York.

Tresna & Raharja (2019). Effect of Entrepreneurial Orientation, Product Innovation and Competitive Advantage on Business Performance in Creative Industries in Bandung City, Indonesia, *Review of Integrative Business and Economics Research,* 8(3),51-59.

Tsekouras, G., Poulis, E. & Poulis, K. (2011) Innovation and dynamic capabilities in a traditional service sector: Evidence from shipping companies, *Baltic Journal of Management,* 6 (3), 320-341.

van den Berg, H.A. (2013). Three shapes of organisational knowledge. *Journal of Knowledge Management,* 17 (2), 159-174.

Wang, W., Lin, C. & Chu, Y. (2011). Types of Competitive Advantage and Analysis, *International Journal of Business and Management*, 6 (5), 100-116

Wang, H. & Feng, J. (2019). Influences of dynamic capability on breakthrough innovation; Evidence from China's manufacturing industry, *Chinese Management Studies* 14 (3), 565- 586

Wang, C.L., Senaratne, C. & Rafiq, M. (2015). Success traps, dynamic capabilities and firm performance, *British Journal of Management*, 26 (1), 26-44.

Wilden, R., Devinney, T.M. & Dowling, G.R. (2016). The architecture of dynamic capability research: identifying the building blocks of a configurational approach, Academy *of Management Annals*, 10 (1), 997-1076

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

Zhou, K.Z. & Li, C.B. (2010). How strategic orientations influence the building of dynamic capability in emerging economies, *Journal of Business Research*, 63 (3), 224-231

APPENDICES

Appendix I: Letter of Introduction

UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
SCHOOL OF BUSINESS
DOCTORAL STUDIES PROGRAMME

Telephone: 4184160/1-5 Ext. 231
Email: dean-business@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

5 January 2021

National Commission for Science Technology and Innovation,
P. O. Box 30623, 00100.
Nairobi, KENYA.

INTRODUCTORY LETTER FOR RESEARCH –PATRICIA CHEMUTAI - REGISTRATION NO.D80/97283/2015

The above named is a registered PhD candidate at the University of Nairobi, School of Business. She is conducting research on ***"Dynamic Capabilities, Strategic Orientation, Firm Innovation and Competitive Advantage of Companies Listed at Nairobi Securities Exchange".***

The purpose of this letter is to kindly request you to assist and facilitate the student with necessary data which forms an integral part of the thesis. The information and data required is needed for academic purposes only and will be treated in **Strict-Confidence**.

Your co-operation will be highly appreciated.

Prof. Mary Kinoti
Associate Dean, Graduate Business Studies
School of Business

MK/jkm

APPENDIX II: Research Questionnaire

SECTION B: DYNAMIC CAPABILITIES

A. Sensing Capabilities

Q5: Please specify to what extent does your organization manifest the following aspects of sensing capabilities. Use a Tick on the corresponding box Key:

No.	Aspect of Sensing Capabilities	1	2	3	4	5
1	We constantly monitor the external environment in search of emerging commercial prospects.					
2	In order to gauge how the shifting landscape affects our business, we conduct periodic reviews.					
3	Our operational quality is routinely evaluated and compared to market standards.					
4	We put our focus and monitor the changing operational capabilities in the industry					
5	We participate in forums that review and deliberate on the changes in the business operational environment					
6	We strive at recognizing best practices in our industry					
7	We quickly detect meaningful and fundamental shifts in the industry					

No.	Aspect of Sensing Capabilities	1	2	3	4	5
8	Our firm observes and forecasts market and industry trends.					
9	We are quick in understanding new opportunities for serving our customers better than our rivals.					
10	We frequently revise our activities of product development based on industry trends					
11	External sources give our firm knowledge about the industry and market trends					

B. Seizing Capabilities

Q6: Please specify to what extent your organization manifests the following aspects of seizing capabilities. Use a Tick on the corresponding box

Key:

No.	Aspect of Seizing Capabilities	1	2	3	4	5
1.	We extensively analyze strategic choices before reaching at an optimum alternative					
2.	We extensively commit time implementing strategies that will enable the exploitation of new opportunities					
3.	We set aside a budget and requisite resources for implementation of new courses of action					
4	Our business actions are carefully interrelated in order to meet the changing conditions					
5	We effectively and efficiently develop new knowledge that could impact our product development endeavors					
6	Our employees have the capabilities of implementing new strategies					
7	Our firm is able to quicky and effectively utilize external knowledge like market trends					
8	We possess and utilize the industry's readily available and existing information					
9	Our firm's well established formal systems help in the prompt circulation of new market information					
10	We promptly respond to varied market dynamics due					

	to our agile structures					
11	Our firms' capabilities for developing new knowledge can impact the competitive position in the industry					
12	When workers find problems, we fix them right away.					
13	We are fast in changing our practices in order to exploit new opportunities					

C. Integration Capabilities

Q7: Please specify to what extent does your organization manifest the following aspects of reconfiguration capabilities? Use a Tick on the corresponding box

Key:

No.	**Aspect of Integration Capabilities**	1	2	3	4	5
1	There is Efficient integration of routines in my company					
2	We possess better integration abilities than our rivals in the industry					
3	It is possible for us to combine the strengths of many into a unified force for good in the workplace.					
4	Every member of staff's duties are clearly outlined and understood by us.					
5	The organization has a portfolio of relevant expertise and skills					
6	We are able to cope with unexpected circumstances like environmental changes					
7	Through communication and cooperation with workers in many departments, we are able to achieve great results.					
8	We have a greater capacity for integration than competitors in our field.					
9	All of our work is in line with those of other departments'.					

10	The resource deployment in the organization is appropriate					
11	Our expertise and work processes are compatible					
12	We frequently recombine our resources and asset base for better alignment of products and markets					

SECTION C: STRATEGIC ORIENTATION

Q8: Market Orientation

Please specify to what extent does your organization manifest the following aspects of Market orientation? Use a Tick on the corresponding box

No.	**Aspect of Market Orientation**	1	2	3	4	5
1	Our primary goal is to satisfy all customers					
2	We craft strategies that will result in creating greater value for our customers					
3	We constantly review our focus on realizing customer satisfaction					
4	We put emphasis on excellent customer service					
5	Our customers provide us with frequent feedback on their satisfaction levels from consuming our products and services					
6	We strive at having the same strengths as our					

	competitors					
7	Understanding of competitors operations help us in crafting our own strategies in the market					
8	We analyze our competitors' strategies regularly					
9	We regularly share information throughout the firm concerning latest competitors					

Q9: Entrepreneurial Orientation

Please specify to what extent does your organization manifest the following aspects of Entrepreneurial Orientation? Use a Tick on the corresponding box

No.	**Aspect of Entrepreneurial Orientation**	1	2	3	4	5
1	Our firm invests highly in R&D					
2	Our firm has extensively changed or improved the product groups during the past five years					
3	Employees in the organization are risk takers					
4	The organization believes that taking risks will ensure the attainment of strategic goals					

5	The top leadership emphasizes risk taking in all aspects of operations					
6	We strive at identifying and operating in new markets before our competitors					
7	Our actions render the competitors in the market followers and not leaders					
8	We move faster than our competitors in offering new products, services or procedures					
9	We implement strategies that our competitors often react to					

Q10: **Learning Orientation**

Please specify to what extent your organization manifests the following aspects of learning orientation. Use a Tick on the corresponding box

No.	Aspect of Learning Orientation	1	2	3	4	5
1	There are clear learning goals in the organization					
2	The top management are committed to organizational learning processes					
3	It is our firm's norm for employees to exchange ideas amongst themselves					
4	Existence of organized processes for internal learning					
5	There is systematic knowledge acquisition and transfer in our firm					
6	There are elaborate working teams in the organization					
7	Our firm put emphasis on learning from experience					
8	Employees are encouraged to share information amongst themselves					
9	Our employees' capability to collaborate on diagnosing problems and exchange problem-solving ideas is high					
10	Our employees constantly share ideas for the					

	achievement of new products or services					
11	Success with new projects or initiatives is facilitated by our staff's willingness to share lessons learned.					
12	The willingness of our staff to share lessons learned is a key factor in the success of new projects or initiatives.					

SECTION D: FIRM INNOVATION

Q11: Product Innovation

Please specify to what extent does your organization manifest the following aspects of product innovation? Use a Tick on the corresponding box

No.	**Aspect of Product Innovation**	1	2	3	4	5
1	There is promotion of product innovative culture by the top management					
2	We are more technologically endowed than our competitors					
3	Our firm encourages and motivates employee's creativity in development of new products					

4	Our firm utilizes the latest technological innovations in the production of products or services					
5	There is a higher degree of newness in our firm's products or services					
6	Our company places an emphasis on rapidly creating innovative new goods and services.					
7	Our company has offered several innovative goods and services to the market.					
8	We create new productive assets from the successfu reconfiguration of resources					
9	Continuous identification of valuable resources and competences that can be combined in new ways					

Q12: Process Innovation

Please specify to what extent does your organization manifest the following aspects of process innovation? Use a Tick on the corresponding box

No.	**Aspect of Process Innovation**	1	2	3	4	5
1	There is extensive use of information technologies e.g., online presence					

2	Our firm introduces new service delivery methods frequently					
3	Our product delivery systems are technologically enabled					
4	Our firm has extensive business innovation programmes					
5	Our firm use recent technological innovations in its processes					
6	Our firm emphasizes high technological competitiveness in all processes					
7	Changes in our company's technical and technological processes					
8	Our company has developed a new service delivery system by repurposing existing resources in novel ways.					
9	There are substantially renewed business processes					
10	There is introduced new changes that are unique from existing processes in our firm					

Q13: Market Innovation

Please specify to what extent does your organization manifest the following aspects of

market innovation? Use a Tick on the corresponding box

No.	**Aspect of Market Innovation**	1	2	3	4	5
1	Our firm emphasizes on new marketing techniques					
2	The firm uses of various media channels to market its products					
3	The company creates value through pricing					
4	There is introduction of new marketing approaches for instance online marketing at our firm					
5	The firm emphasizes on increasing market demographics					
6	We undertake aggressive anti competitors marketing campaigns					
7	The firm addresses customers' suggestions or complaints urgently and informs decisions regarding new markets					
8	The firm continuously into enter new emerging markets					
9	The firm manages to deliver customers' orders using agile systems					
10	The firm marketing results in customer satisfaction and retention					

SECTION E: COMPETITIVE ADVANTAGE

Q11: Please specify to what extent your organization manifests the following aspects of competitive advantage in the last three years. Use a Tick on the corresponding box

No.	**Aspect of Competitive advantage**	1	2	3	4	5
1	We are quicker than the competition to market novel, differentiated offerings in response to consumer needs.					
2.	We use relatively low number of resources in the generation of products and /offering of services					
3	We enjoy a higher market share as compared to our industry competitors					
4	Our firm records high levels of cost reductions by improving and using efficient product and service delivery ways					
5	We have a strong network of customers resulting to low prices of products and services from reduced advertising costs					
6	Our niche customers positively commended our					

	product/service delivery					
7	Often introduce new products faster than our competitors					
8	Our company has a higher level of product differentiation than its rivals.					
9	We promptly respond to first signals of new opportunities and offer low cost differentiated products and services					
10	We prioritize investments in machinery, systems and structures for efficient production of products and service offering					
11	We have strict quality control measures through strict sourcing procedures					
12	Our firm's primary goal is to meet our customer needs and deliver value through high quality products and services					
13	We have effective ways of addressing differentiated product requirements by instituting effective feedback mechanisms					

14	Our company is able to swiftly identify promising untapped markets with little to no competition.					

APPENDIX III: Research Permit

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 584764

Date of Issue: 19/January/2021

RESEARCH LICENSE

This is to Certify that Ms.. PATRICIA CHEMUTAI of University of Nairobi, has been licensed to conduct research in Nairobi on the topic: DYNAMIC CAPABILITIES, STRATEGIC ORIENTATION, FIRM INNOVATION AND COMPETITIVE ADVANTAGE OF COMPANIES LISTED AT NAIROBI SECURITIES EXCHANGE for the period ending : 19/January/2022.

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National Commission for Science, Technology and Innovation
off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077
Mobile: 0713 788 787 / 0735 404 245
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke
Website: www.nacosti.go.ke

APPENDIX IV: Nairobi Securities Listed Firms

No.	**AGRICULTURAL**
1	Eaagads Ltd
2	Kakuzi Plc
3	Kapchorua Tea Co. Ltd
4	The Limuru Tea Co. Plc
5	Sasini Plc
6	Williamson Tea Kenya Ltd
	AUTOMOBILES & ACCESSORIES
7	Car & General (K) Ltd
	BANKING
8	ABSA Bank Kenya Plc
9	BK Group Plc
10	Diamond Trust Bank Kenya Ltd
11	Equity Group Holdings Plc
12	HF Group Plc
13	I&M Holdings Plc
14	KCB Group Plc
15	National Bank of Kenya Ltd
16	NCBA Group Plc
17	Stanbic Holdings Plc
18	Standard Chartered Bank Kenya Ltd
19	The Co-operative Bank of Kenya Ltd
	COMMERCIAL AND SERVICES
20	Deacons (East Africa) Plc
21	Eveready East Africa Ltd
22	Express Kenya Plc
23	Kenya Airways Ltd
24	Longhorn Publishers Plc
25	Nairobi Business Ventures Ltd
26	Nation Media Group Plc
27	Sameer Africa Plc
28	Standard Group Plc
29	TPS Eastern Africa Ltd
30	Uchumi Supermarket Plc
31	WPP Scangroup Plc
	CONSTRUCTION & ALLIED
32	ARM Cement Plc
33	Bamburi Cement Ltd
34	Crown Paints Kenya Plc
35	E.A.Cables Ltd
36	E.A.Portland Cement Co. Ltd

	ENERGY & PETROLEUM
37	KenGen Co. Plc
38	Kenya Power & Lighting Co Plc
39	Total Kenya Ltd
40	Umeme Ltd
	INSURANCE
41	Britam Holdings Plc
42	CIC Insurance Group Ltd
43	Jubilee Holdings Ltd
44	Kenya Re Insurance Corporation Ltd
45	Liberty Kenya Holdings Ltd
46	Sanlam Kenya Plc
	INVESTMENT
47	Centum Investment Co Plc
48	Home Afrika Ltd
49	Kurwitu Ventures Ltd
50	Olympia Capital Holdings ltd
51	Trans-Century Plc
	INVESTMENT SERVICES
52	Nairobi Securities Exchange Plc
	MANUFACTURING & ALLIED
53	B.O.C Kenya Plc
54	British American Tobacco Kenya Plc
55	Carbacid Investments Ltd
56	East African Breweries Ltd
57	Flame Tree Group Holdings Ltd
58	Kenya Orchards Ltd
59	Mumias Sugar Co. Ltd
60	Unga Group Ltd
	TELECOMMUNICATION
61	Safaricom Plc
	REAL ESTATE INVESTMENT TRUST
62	ILAM FAHARI I-REIT
	EXCHANGE TRADED FUNDS
63	NEW GOLD ETF

Source: -Nairobi Securities Exchange Financial Journals (2021)