BUSINESS STRATEGIES, GOVERNMENT POLICIES, INNOVATION PROCESSES AND PERFORMANCE OF LARGE MANUFACTURING FIRMS IN KENYA

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DECLARATION

This thesis is my original work and has not been presented to any other University or Institution of higher learning for examination.

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DEDICATION

This is to thank my parents for instilling the passion for academic quest since I was young. I wish to dedicate this scholarly work to my family especially my wife Emma, daughter Abigyle and son Jayden for their love, encouragement and especially when faced with difficulties of balancing academics, work and family. I wish to extend my special thanks to my brothers and sisters for their moral support as I worked on this research.

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ABREVIATIONS AND ACRONYMS

CAPM	**:**	Capital Asset Pricing Model
CEO	**:**	Chief Executive Officer
CFA	**:**	Confirmatory Factor Analysis
CFROI	**:**	Cash Flow Return on Investment
CMV	**:**	Common Method Variance
EAC	**:**	East Africa Community
EMF	**:**	Emerging Market manufacturing Firms
FMM	**:**	Federation of Malaysian Manufacturers
GATS	**:**	The General Agreement on Trade in Services
GDP	**:**	Gross Domestic Product
GEM	**:**	Growth Enterprises Market
GOK	**:**	Government of Kenya
HHI	**:**	Herfindal Hirchman Index
HRM	**:**	Human Resource Management
IC	**:**	Intellectual Capital
ICN	**:**	Intellectual Capital Navigator
IT	**:**	Information technology (IT)
KAM	**:**	Kenya Association of Manufactures
KNBS	**:**	Kenya National Bureau of Standards
MTMM	**:**	Multi-Trait, Multi-Method
OE	**:**	Operational Effectiveness
OECD	**:**	The Organization for Economic Co-operation and Development

R&D	**:**	Research and Development
RBV	**:**	Resource Based View
ROA	**:**	Return on Assets
ROI	**:**	Return on Investment
ROIC	**:**	Return on Invested Capital
SMEs	**:**	Small and Medium Enterprises
SPSS	**:**	Statistical Package for Social Sciences
TQM	**:**	Total Quality Management
UK	**:**	United Kingdom
UNIDO	**:**	United Nations Industrial Development Organization
USA	**:**	United States of America
USAID	**:**	The United States Agency for International Development
VCA	**:**	Value Cost Analysis
WB	**:**	World Bank
WBSO	**:**	Wet-Bevordering Speur-en Ontwikkelingswerk

DEFINITION OF TERMS

Business Strategy: Is defined as the approach(s) that organizations employ as a means to achieving the desired end. For this research, they include innovation, technology, customer focus, organizations competitive strategy (Burgelman, 2020).

Government Policies: Refers to rules or principles that hopefully better guides decisions, resulting in positive outcomes that enhance the community or unit. Government policies contain the reasons things are to be done in a certain way and why (Pelkmans & Renda, 2014).

Innovation: Denotes the process of commencing, developing, and introducing new ways of organization, new processes and services, and new products (Gunday, Ulusoy, Kilic & Alpkan, 2011).

Manufacturing Is a value-adding process allowing businesses to sell finished products at a premium over the value of the raw materials used (KAM, 2018).

Organizational Performance: is defined as an organization's ability to exploit its environment for accessing and using the limited resources. It is a set of financial and nonfinancial indicators, which offer information on the degree of achievement of objectives and results by an organization (Parmenter, 2015).

ABSTRACT

The main objective of the study was to examine the influence of government policies and innovation processes on the relationship between business strategies and performance of manufacturing firms in Kenya. Specific objectives of the study included; influence of business strategies on performance of manufacturing firms, effect of firm innovation on the relationship between business strategies and performance, moderating effect of government policies on the relationship between business strategies and performance, and the joint effect of business strategies, government policies and innovation on performance. The study was founded on three theories namely: Theory of business strategy, resource-based view theory, cost differentiation theory, and open innovations theory. The study adopted descriptive research design, the target population comprised of 903 manufacturing firms registered with Kenya Association of Manufacturers in Kenya. Owing to the heterogeneity of the units of study, the research used stratified random sampling technique to collect data from a sample size of 269 firms. Data was analyzed using a combination of four different statistical analysis methods that included descriptive statistical analysis, factor analysis, correlation analysis and regression analysis. Reliability analysis results indicated that all study constructs had Cronbach alpha coefficients greater than 0.7. Factor loadings of all indicators were greater than 0.4 suggesting high convergent validity. The study indicated that business strategies influenced the performance of manufacturing firms in Kenya. The study also established that firm innovation had a significant mediating influence on the relationship between business strategies and performance of manufacturing firms in Kenya. Further, the results indicated that government policies moderately influenced the relationship between business strategies and performance of manufacturing firms in Kenya. Lastly, it was established that innovation process, business strategies and government policies affected the performance of manufacturing firms in Kenya. This study adds value in the areas of theory, practice and policy development. The management of manufacturing firms need to recognize the critical role of business strategies in influencing the overall satisfaction of their stakeholders, which eventually leads to growth and profitability. Due to the increased competition in the manufacturing sector, firms must pursue a differentiation strategy. Firms should embrace information technology, customer focus and differentiation approach in order to improve the firm's visibility in the market.

CHAPTER ONE
INTRODUCTION

1.0 Introduction

The chapter discusses the background of the study by introducing the variables, which include independent, intervening, moderating, and dependent variables. The chapter will detail the statement of the problem, which will enhance the setting of the study objectives based on the knowledge and/or literature gaps. In addition, chapter one details significance, scope, and limitation of the study based on the variables of used in the paper.

1.1 Background of the Study

Globally, companies devise new strategies to alleviate a wide array of challenges occasioned by declining growth of the economy. Fundamentally, the stagnating of the economy is a factor associated with poverty and unemployment, more particularly in the developing world, and this has been the hallmark of creating different strategies, which enviably lead to stimulation of economic activities across the globe (Burgelman, 2020). Lane and Maxfield (2018) argue that a company that undertakes unique and inimitable activities has competitive advantage and is likely to be more profitable than its rivals are. Factors such as strategic types, adoption of new technologies, quality products among others have also been considered to have important influence on superior performance of firms. Over the years, business strategies applied by multinational companies have been found to have direct influence on firm's competitiveness and growth performance.

Strategy is a set of decisions making rules for guidance of organization behaviour that enables manager to attain competitive advantage over rivals. Porter (1980, 1985) introduced the concept of generic strategies namely differentiation, cost-leadership and market focus strategies. He argued that the generic strategies of cost leadership, differentiation and market focus represent different strategic orientations available to a firm to compete in its industry. Firms that adapt these orientations would acquire a competitive advantage that would enable them to outperform industry competitors (Ghasemi, Abdi, Yaghmaei &Nemati, 2015). Organizations that implement a differentiation strategy develop a competitive advantage by creating a product or service that is unique or creates the perception in the minds of customers that the firm or its products and services are superior to those of its competitors and also possess characteristics that are

distinctive from those of its competitor's. These perceptions are generated through design quality and innovativeness (Acquaah, Adjei & Mensa-Bonsu, 2008).

Porter (1980) asserts that the cost leadership approach requires a vigorous pursuit of cost reductions. Firms that implement cost leadership strategy focus on out performing competitors through efficiency (Tansey, Spillane & Meng,2014) by controlling production costs, materials costs, supply costs and product distribution costs. The third generic strategy, market focus is about concentrating ona particular client, segment of the market, or geographical market. Porter (1980) acknowledged that the focus strategy is built around serving a particular target very well. Within its target market, the firm seeks to meet the needs of the customer better, resulting in cost leadership through marketing and operating efficiencies or differentiation from better services. Porters (1980; 1985) generic strategies are have been widely accepted and adopted as the dominant paradigm of strategy, research and practice.

In UK, Nandakumar et al. (2011) sought to examine the relationship between business-level strategy and organizational performance and to test the applicability of Porter's generic strategies in explaining differences in the performance of organizations. The study focused on manufacturing firms belonging to the electrical and mechanical engineering sectors. Data were collected through a postal survey using the survey instrument from 124 organizations and the respondents were all at CEO level. The results indicated that firms adopting one of the strategies, namely cost-leadership or differentiation, perform better than "stuck-in-the-middle" firms which do not have a dominant strategic orientation. The integrated strategy group has lower performance compared with cost-leaders and differentiators in terms of financial performance measures. This provides support for Porter's view that combination strategies are unlikely to be effective in organizations. However, the cost-leadership and differentiation strategies were not strongly correlated with the financial performance measures indicating the limitations of Porter's generic strategies in explaining performance heterogeneity in organizations.

In another study in UK, O'Regan and Ghobadian (2006) did a study on perceptions of generic strategies of small and medium sized engineering and electronics manufacturers. The Miles and Snow strategic orientation typology was used to examine the emphasis on the factors used to craft strategy and its subsequent impact on organizational performance. The study examined its

applicability in two contrasting sectors: engineering and electronics. Based on the responses obtained from 194 SMEs, the findings indicate that the main strategic orientation types present in this study are associated with different environment types; prospectors tend to perceive their environment as "dynamic" whereas defenders perceive their environment as "stable". Distinct differences were found in relation to the emphasis of both orientation types on leadership, culture, strategy, and performance outcomes. Finally, the findings indicate that "prospectors" perform better than "defenders" and are twice as likely to be high performing. Smaller firms are more likely to be "prospectors" compared with firms employing over 100 staff.

In Portugal, Green et al. (1993) examined the applicability of Michael Porter′s *Three Generic Strategy Typology* (1980) in the developing manufacturing nation of Portugal. It was concluded that the typology is an excellent representation of the strategic orientations of manufacturing firms in Portugal. The existence of the strategic options of cost leadership, differentiation and focus were identified, in their pure form, through factor analysis. Regardless of the apparent lack of formal strategic planning processes, Portuguese manufacturing firms appeared to be following internally consistent business level strategies.

In Australia, Leitner and Güldenberg (2010) studied the impact of generic strategies on firm performance using a longitudinal study of small and medium-sized enterprises (SMEs). In two surveys, data on the strategic behavior and performance of the same group of firms were gathered for the period from 1992 to 2002. The study expands existing literature, which provides little evidence whether the persistent commitment to a generic strategy over a longer period pays off or whether strategic change is the rule in SMEs, reflecting their flexibility as a potential competitive advantage. The study considered the traditional generic strategies of cost-efficiency and differentiation, but also examine the group of firms that have no clear strategy or are "stuck in the middle." Within this group, the study distinguished between those companies that deliberately combine traditional low cost production and differentiation, i.e., follow a combination strategy, firms that change their strategy and those that have no strategy. We argue that a combination strategy is a viable strategic choice for SMEs in the long run. The study found that the majority of firms pursued a persistent strategy over a 10-year period, but that companies that changed their generic strategy did not produce inferior results to those that adhered to a single strategy over the entire period. The results reveal that firms that follow a combination

strategy outperform companies with no generic strategy in terms of profitability and growth and achieve higher profitability than companies that follow a differentiation strategy.

In Nigeria, Alintah-Abel et al. (2020) investigated the effect of company strategies on organizational performance in construction industry. Primary data with the aid of a structured questionnaire was used to elicit information from respondents. The data collected were analyzed using both descriptive such as percentages and mean and inferential statistics of regression analysis was used to test the hypotheses. The findings revealed that construction companies adopt several company strategies at various levels; however, the strategies are generally applied moderately in the firms. The study deduced that both growth strategies and generic strategies have positive significant impact on performance.

In Ghana, Acquaah et al. (2008) examined the impact of the implementation of competitive strategy on organizational performance in response to economic liberalization policies using survey data from organizations in Ghana. The results showed that the implementation of the competitive strategies of low-cost, differentiation, and integrated low-cost and differentiation were all positively related to performance (return on assets and return on sales). It was also found that both industry competition and industry sector moderate the relationship between differentiation strategy and return on assets. Moreover, industry competition moderated the relationships between both low-cost and differentiation strategies and return on sales. The results indicated that implementing a clearly defined competitive strategy is beneficial to organizations experiencing significant changes in the environment due to economic liberalization. The findings also suggested that while low-cost strategy was more beneficial to organizations in a highly competitive industry, differentiation strategy was more beneficial to firms in lowly competitive industry. At the same time, organizations in the manufacturing sector benefited more than those in the service sector when they implement the differentiation strategy.

In Zambia, Amoako-Gyampah and Acquaah (2008) examined the relationship between manufacturing strategy and competitive strategy and their influence on firm performance. It was found that there were a significant and positive relationships between competitive strategy and the manufacturing strategies of cost, delivery, flexibility, and quality. The findings also indicated that quality is the only manufacturing strategy component that influenced performance. The

results further showed that although competitive strategy did not directly affect firm performance, it did so indirectly through quality. Thus, whether a firm chooses to pursue a cost leadership or a differentiation strategy an emphasis on quality provides the most benefits with regard to firm performance. An emphasis on quality appears to provide a means by which companies can mitigate the effects of increased competition resulting from the economic reforms within the Ghanaian manufacturing environment.

In Tanzania, Hhary and Mboma (2020) the study objective was to determine the effects of Cost Leadership Strategy on Performance of Pharmaceutical Industry. This study was descriptive based on quantitative research approach carried out through census, 92 staff member in nine departments from Zenufa Laboratories (T) Limited filled in the questionnaires as an instrument of primary data collection. Inferential statistics such as Pearson correlation and multiple regressions were applied to determine relationship between the variables. The finding revealed that the cost leadership had a positive effects on the performance of Zenufa Laboratories (T) Limited, which imply that increase in the cost leadership strategies improves the performance of pharmaceutical industry

Obado (2020) did a study on competitive strategies employed by the sugar manufacturing firms in Kenya. Data for this study was obtained through personal interviews with the chief executive officers using a questionnaire comprising both open-ended and closed questions. The findings of this study show that the sugar manufacturing firms have formalized vision and mission statements. They employed competitive strategies of cost leadership, differentiation and focus to different degrees. Cost leadership strategy was the most widely practiced amongst the firms. Differentiation strategy mainly revolved around customers service, distribution networks, and branding. Focus strategy was also in use, though quantities sold to target customers are relatively low.

Wamalwa (2018) examined the effect of TQM practices, on the relationship between generic strategies and organization performance in the Kenyan manufacturing industry. The study adopted a descriptive research design. The target population for the study was 39ISO certified, manufacturing firms. The target respondents were the CEO, strategic managers and Quality Assurance managers from the 39 ISO certified manufacturing firms. Structural equation

modelling (SEM) and multiple Regression analysis were used to analyze the relationships between generic strategies, TQM and organization performance.

The finding indicated that TQM partially mediates the relationship between cost leadership strategy and organization performance. The study established that the mediation effects of TQM on the relationship between differentiation strategy and focus strategy varied depending on the performance measure. TQM partially mediated the relationship between differentiation strategy and both financial performance and overall performance, it fully mediated the relationship between differentiation strategy and the following performance measures customer satisfaction, internal process performance and organization learning and growth. The study also established that TQM fully mediates the relationship between focus strategy and the following performance measures; financial performance; Customer satisfaction and overall performance of the organization however it partially mediates the relationship between focus strategy and internal process performance and organization learning and growth. Lastly the study established that TQM partially mediated the relationship between generic strategies and financial performance; customer satisfaction; internal process performance; organization learning and growth and the overall performance.

Atikya et al. (2015) sought to establish the effect of differentiation strategy on the performance of manufacturing firms in Kenya. The study was anchored on Porter's competitive business strategy typology. A survey questionnaire and an interview guide was used to collect data from 131 firms out of the 170 targeted drawn from 12 key industrial subsectors located within Nairobi and its environs. The study adopted descriptive and explanatory research design. Pearson's correlation was used to indicate positive correlation between the input and the output variable and regression analysis was used to test the relationship between the constructs. The study confirms previous studies on positive relationship between differentiation strategy and firm performance.

Njuguna (2015) examined the effects of generic strategies on competitive advantage among the SMEs. Using a survey research design and a stratified sampling technique, 276 SMEs were sampled from a population of 985 SMEs operating in Nyahururu Town. From the sampled SME the business owner and manager were purposively selected. Using a structured self-administered

questionnaire, primary data were collected through a drop and pick method, and analyzed using descriptive and correlation analysis. The results indicated that the generic strategies of cost leadership and differentiation were being adequately used by the SMEs to gain competitive advantage. The focus strategy was also used but only to a limited extent.

In order to protect their citizens, governments establish regulations which aim to ensure the safety of products, and to warrant sufficient levels of information about products. At the same time, these regulations are used to avert the removal of substandard quality goods by exploitive foreign or local marketers. However, governments enforce unwarranted regulation to discourage competition because relative to industrial markets, consumer markets are more perceptible and more susceptible. Similarly, regional or global trade policies legalized by international agreements are outside the influence of manufacturing firms unless a government provides an adaptable interpretation. Confusion concerning the supports and precise information is caused by discrepancies amongst the supporting government agencies and policies in certain countries for example in Malaysia. Storey (1994) stated that complexity increases government in decisions of what and how to help the manufacturing firms. The provision of support for firms seeking to grow locally is a main challenge in formulating government policy (Blom-Hansen, Houlberg, Serritzlew & Treisman, 2016).

In each and every country, the government literally controls the nation and the external business environment of individual business sectors via the measures that can be broadly divided into (Kotler et al., 2002): Foreign policies, financial and non-financial business support provision, laws and implementation of regulations, governing commercial activities. Government issues, such as regulations, export policy, procedural customs, endowments and incentives also influence business processes. In addition, internal issues such as tax legislation, interest rate policy, labor law regulations, and the administrative infrastructure has an impact on a firm's choice. For small firms to grow, incentives, endowments, and participation in government schemes and programmes provide support and encouragement. However, procedural customs, government trade policy, international standards and regulations can also inflict high challenges for realizing foreign and local expansion for manufacturing firms (Cebula, Rossi & Clark, 2016).

Governmental laws and regulations governing the business activities, such as competition regulation laws antitrust laws, environmental requirements, etc., the aforementioned terms are not ascribable to the external business environment of elements affecting the internationalization process, for they are rather of an administrative nature, i.e. determined to standardize the businesses not directly connected to internationalization. Nonetheless, a great number of laws and rules/stipulations regulating firms or business entities, and the complexity of those regulations in nature is another issue to be taken into account, i.e. a high level of bureaucracy, can hamper business performance resulting in the external business environment factor, which is unfavorable to the performance related issue (Ramūnas & Vilma, 2011).

The Government of Kenya has recognized the pivotal role played by firms in the manufacturing sector and in its Finance Bill 2007, abolished 315 licenses out of the existing 1325 licenses for trading in the country to promote manufacturing sector as licensing system had been a great impediment to growth in this sector. The number of manufacturing firms in Kenya is high but their mortality rate is also high as very few survive after the third anniversary. Firms in the manufacturing sector are supposed to follow government rules and regulations in their operations. Regulation is any administrative legislation that constitutes or constrains rights and allocates responsibilities. One can consider regulation as actions of conduct imposing sanctions, such as a fine, to the extent permitted by the law of the land. This action of administrative law, or implementing regulatory law, may be contrasted with statutory or case law (Li, Zhan, de Jong & Lukszo, 2016).

Innovation is one of the key features of entrepreneurial behavior that has been significantly linked to manufacturing firms. Innovation is widely acknowledged as a core factor to increased productivity and competitiveness. It is one of the key practices underpinning the survival and competitiveness of firms in a competitive globalized environment (Kiraka, Kobia & Katwalo, 2013). According to Porter (1996), a firm is able to compete effectively if it generates a specific and durable differentiating factor and innovation is one of the key ways through which firms can create the differentiating factor. Within the business context, innovation is often considered the basis of strategic change through which firms can gain and sustain competitive advantage.

An essential tool of firm strategies, innovation can enable firms to differentiate their products, improve efficiency, penetrate new markets and raise market share to establish competitiveness. Based on this notion, firms are increasingly turning to innovation to develop and sustain their competitiveness. Innovation is considered a dominant factor in firm competitiveness and the ability to innovate the single most important factor in enhancing and sustaining competitiveness. Drucker (1985) describes innovation as "the explicit tool for entrepreneurs and firms'' leading to the growth of a strong and vibrant SME sector. Porter (1998) describes innovation as "a business practice that firms can employ to achieve their objectives by the implementation of better methods and processes for competitiveness. A firm's ability to compete is largely determined by its capability to create a specific and durable differentiating factor and be achieved through innovation among other firm activities. Increasing global competitive pressure, shortened product lifecycles and ease of imitation make it necessary for firms to innovate to sustain competitiveness.

Innovation is increasingly becoming and vital competence factor and source of strategic change for sustained competitive advantage. As a result, pressure on all businesses to continually innovate by developing and launching new products and services is greater than ever (Kiraka, Kobia & Katwalo, 2013). Innovative enterprises are able to implement new products and processes that position them ahead of their competitors. Innovation is a major practice underpinning the survival and competitiveness of firms in a competitive globalized environment. As an essential tool for firm strategies, innovation enables firms to achieve sustained profitability and growth, to access new markets, enhance their market share hence compete effectively. As such innovation has become central to firm strategies and government policies in the pursuit of firm competitiveness and ultimately national competitiveness. Innovation in pursuit of competiveness remains a credible goal of many firms, national policies and is central in many firms' competitiveness (Sandhya & Kumar, 2014).

Despite the acknowledged importance and a lot of attention on innovation among researchers, academicians, practitioners and policy makers, there is still no standard approved single definition of innovation. Innovation still remains a broad concept that is conceptualized in different ways. As such, attempts to define the term have resulted in widely varying definitions and conceptualizations. This study reviewed several definitions put forward by different authors

with the view of getting a clear and broad understanding of the concept. Schumpeter (1934) defines innovation as "the introduction of a product which is new to consumers or one of higher quality than existing products, new methods of production, the opening of new markets, the use of new sources of supply and new forms of competition, that lead to the restructuring of an industry" (Schumpeter, 1934). According to him, innovation leads to economic development through "creative destruction"

Performance of firms is measured using various parameters/indicators based on the product and/or service it offers. This study will measure performance of manufacturing firms by financial performance, customer satisfaction, internal process performance, and improvement in quality of products and services. Mahapatro, Mukherjee, and Bhar (2015) define organizational performance as the ability of an organization to fulfill its mission through sound management, strong governance and a persistent rededication to achieving results. Effective non-profits are mission-driven, adaptable, customer-focused, entrepreneurial, outcomes oriented and sustainable. According to Ferlie et al. (2016), the purpose of any business firm is to better competitive advantage compared to competitors, offer better returns to the owners and stakeholders. Organizational performance allows researchers to evaluate firms over time and compare them to rivals.

According to Manyuru (2005), performance in business firms takes many forms depending on whom and what the measurement is meant for. Different stakeholders require different performance indicators to enable them make informed decisions. According to Richard et al. (2009), organizational performance encompasses three specific areas of firm outcomes, which include financial performance as measured by profits, return on assets, return on investment, product market performance as measured by sales, market share, and shareholder return as measured by total shareholder return, economic value added, etc.

The Kenya manufacturing industry contributes about 10.7 % of the country GDP (KNBS, 2016). The sector accounted 26% of the merchandise exported; 12% of the total formal employment which is about 280, 0000 people (KNBS, 2015). However regardless of this contribution vision 2030 stipulates that the sector should account for 20% percent of the GDP (KNBS, 2015) achieving this goal requires addressing underlying constrains that hinder faster growth. These

include high input cost, decline in investment portfolio for some activities, high credit costs and stiff competition from imports. In an effort to spur growth in the sector, the government continues to invest in both infrastructure developments projects and cheap energy supply mainly in geothermal and wind energy aimed at improving competitiveness of manufactured products in domestic and global markets (RoK, 2015).

Despite this the sector faces high competition; the survival rate of export manufacturing firms is low. Particularly the first few years of entering export markets, 65% of firms exit the export market by the second year of operation (World Bank,2014).Real growth rate in the sector was averaged 4.1% in 2006-2013, lower than the average annual growth in the overall real GDP of 4.6% as a result the manufacturing sector's share in output has declined in recent years hindering the country's ability to became fully industrialized(KPMG, 2014).The Kenyan manufacturing industry is dominated by food and consumer goods processing; meat and fruit canning, wheat flour and maize milling, and sugar refining are notable subsectors (KPMG,2014). The country manufactures a range of other goods including the following; chemicals, textiles, ceramics, shoes, beer and soft drinks, cigarettes, soaps, metal products, batteries, plastics, cement, aluminium, steel, glass, rubber, wood, cork, furniture and leather goods.

1.2 Statement of the Problem

Across the world, companies face many challenges on how to realize competitive advantage through innovation and this has been a problem in developing countries. According to KAM (2018), the manufacturing sector in Kenya has faced significant challenges since 2003. This has seen their contribution to GDP drop from 9.2% in 2016 to paltry 8.4% in 2017. The reasons for the low growth of the sector have been cited as higher cost of operation, low-priced imports and unpredictable policy environment (Gathogo & Ragui, 2014). Realization of performance improvement among manufacturing firms is dependent on the incorporation of innovation and business strategies (Camisón & Villar-López, 2014). In fact, limited execution and diffusion of process and product innovations in majority of companies in the manufacturing sector is the main obstacle towards the ideal performance.

Several scholars have focused on concepts of business strategies, government policies, and innovation on organizational performance (Artic, 2013; Barney, 2014), estimation of firm performance (Chaudhuri, Kumbhakar, & Sundaram, 2016), product development through process and product innovation (Colombo, Dell'Era, & Frattini, 2011). Other studies considered evolution of service industry through business strategies (and performance of manufacturing firms (Gathogo & Ragui, 2014). The conceptual gap that this study will fill from the aforesaid studies is the relationship between business strategies, government policies, and innovation on performance of manufacturing firms.

Empirical studies in Kenya that have considered manufacturing firms have dwelled on employee performance compared to firm performance (Murgor, 2014). Other studies have concentrated mainly on the firms listed in the Nairobi Securities Exchange (Ogendo, 2015). Those companies are members of different industry sector, denoting a very different focus that can deter generalization. International empirical literature focused on Chinese hotel industry (Lo, 2013), Malaysian manufacturers (Jabar Soosay, & Sant, 2011), chemicals, machinery, and motor vehicle industries in the US (Schilke, 2014) and large and medium sized Greek firms (Protogerou, Caloghirou, & Lioukas, 2011). This study fills the contextual gap of Kenyan and international empirical studies that have not conducted research on the influence of government policies and innovation on the relationship between business strategies and performance of manufacturing firms in Kenya.

Methodologically, existing body of literature concentrates on performance of manufacturing firms as the dependent variable, while their independent, moderating, and mediating variables are different. For instance, Rosli and Sidek (2013 had innovation as the independent variable, while in this study innovation is the intervening variable. While these studies (Machuki & Aosa, 2011; Ongeti, 2014) had performance as the dependent variable, their independent, moderating and mediating variables were different, where the former had external environment strategy as the independent variable, while the latter had organizational resources as the independent variable. This study sought to fill the methodological gap by focusing on business strategies as the independent variable, strategic innovation as intervening variable, government policies as moderating variable and performance of manufacturing firms as dependent variable.

1.3 Research Objectives

1.3.1 General Objective

The general objective of the study was to examine the influence of business strategies, government policies and innovation processes on the performance of manufacturing firms in Kenya.

1.3.2 Specific Objectives

The specific objectives were as follows:

i. To determine the influence of business strategies on performance manufacturing firms in Kenya
ii. To establish the moderating effect of government policies on the relationship between business strategies and performance of manufacturing firms in Kenya.
iii. To assess the mediating effect of innovation processes on the relationship between business strategies and performance of manufacturing firms in Kenya
iv. To determine the joint effect of business strategies, government policies and innovation processes on performance of manufacturing firms in Kenya.

1.4 Research Hypotheses

From the relationship in the conceptual model in Figure 2.1, the following Research Hypotheses were tested;

i. **H_0:** Business strategies have no significant effect on organizational performance of manufacturing firms in Kenya.
ii. **H_0:** Government policies have no significant moderating effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.
iii. **H_0:** Firm innovation processes have no significant mediating effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.
iv. **H_0:** There is no significant joint effect of business strategies, innovation processes, and government policies on the performance of manufacturing firms in Kenya.

1.5 Significance of the Study

The findings of the study will enable scholars to build on the theoretical aspect of innovativeness in the firms registered by Kenya Association of Manufacturers. It is expected that the results of this study will be of an important point of reference for future researchers, academicians, and scholars. The study adds to the available body of knowledge in business strategies. Researchers and Scholars could apply the study outcomes as reference for future research on business strategies.

Policy makers will benefit from the findings of this study through provision of current data on issues that affect the performance firms registered by Kenya Association of Manufacturers. The findings will enhance sound decision making in the manufacturing industry, as various players would understand the dynamics, trends, and opportunities in Kenya's manufacturing industry.

Firms will use the information from the results of the study to develop sound decisions and strategies that will promote profitability and sustainable growth. The findings of the study are expected to add value to the existing body of knowledge on the financial profitability of firms in the sector.

1.6 Scope of the Study

The study was confined to firms registered by the Kenya Association of Manufacturers (KAM). In addition, the scope of the study was only confined to the variables of the study, which included business strategies, government policies, and innovation that were hypothesized to influence the performance of manufacturing firms.

1.7 Limitations of the Study

The principal purpose of the study was to establish the influence of business strategies, government policies and firm innovation on the performance of manufacturing firms in Kenya. While this objective was achieved, it was not devoid of limitations. It was limited in scope and a number of factors including time and financial constraints. The study used cross sectional survey since it is one of the most appropriate methods available to address both financial and time constraints. Additionally, the use of telephone contacts, coupled with competent research assistants, enhanced response considerably.

It was also limited in terms of conceptual, contextual and methodological manifestations. From conceptual perspective, the study was limited to business strategies, as predictor variable, innovation process as the mediating variable, and government policies as the moderating variable and firm performance as the dependent variable, with a specified number of indicators. A combination of these variables without other known factors statistically limits the findings considerably. The choice of this study was motivated by the inconsistencies and lack of evidence on the role of business strategies in influencing performance of firms, with government policies and innovation process as moderating and mediating variables respectively. Thirdly, the study was limited to the survey of 269 firms in manufacturing sector in Kenya. These firms represent a vast majority of manufacturing firms. This contextual limitation could be mitigated by a broad-based approach, incorporating all firms in the manufacturing sector in Kenya.

Methodological limitations were also experienced in terms of the research design, and operationalization of firm performance variable. The study adopted descriptive cross-sectional survey design. The design albeit convenient, does not delve into finer details of the phenomenon being investigated. Since firm performance is a long-term adventure, whose effects are cumulative in nature, the results of the study could have been more detailed and different if longitudinal research design were adopted as it takes a longer period owing to changes that occur over period of time. Despite these limitations, however, the study was designed in a highly scientific manner following through the literature and theoretical review and considering several available approaches. The study was thus rigorous and thorough in its approach to analysis, interpretation and reporting of the findings. The limitations discussed therefore did not have any material effect on the results and findings of the study.

1.8 Chapter Summary

This chapter presents a background of the study that describes the business strategies, government policies, innovation process and performance. The chapter also presents the statement of the problem, research objectives and explains the justification, scope of the study and limitations.

CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

This chapter evaluated studies that have been accompanied in the area of business strategies, innovation processes, government policies, and firm performance and shows the gap to be bridged by the study carried out. The chapter details the review of theories that are applicable to the constructs of the study. In addition, a conceptual framework will be applied as a basis of underlining the linkages between the explanatory variables and the response/outcome variable.

2.1 Theoretical Literature Review

The theories discussed here are theory of business strategy, resource-based view theory, cost differentiation theory, and open innovation theory. The study adopts the theory of business strategy as the anchor theory.

2.1.1 Theory of Business Strategy

Shapiro (1989) is the proponent of theory of business strategy, which emphasizes on the dynamics of strategic actions and in particular on the role of commitment in strategic settings. Under conditions of imperfect information, the focus is on information transmission and reception. The diversity of models of business strategy does not focus any failure of the new industrial organization; rather, it is delves on organizations application of appropriate technology. The theory of business strategy has been critiqued on the basis that it argues that competitive strategy practice encompasses a wide variety of strategic and tactical decision-making, from the pricing of products to investment in production and distribution facilities to contracting practices with customers and input suppliers to research and development expenditures.

Business strategy theory is applicable to this study because it talks about the conditions under which different outcomes occur and what factors are most critical in shaping behavior and performance in concentrated industries. Business strategy theory is relevant to this study because it details the happenings in manufacturing industries, and how firms can leverage business strategies, such as innovation and customer focus to realize competitive advantage.

2.1.2 The Resource Based Theory

The origin of resource based view can be traced back to earlier research of Seiznick (1957), Penrose (1959) among other researchers. The emphasis on this school of thought was on the importance of resources and its implication for the firm performance. This theory simply emphasizes the idea that an organization must be seen as a bundle of resources and capabilities to create value and therefore gain competitive advantage (Barney, 1991). The resource-based view further posits that firms can achieve overall competitiveness and performance if they possess tangible or intangible resources that are valuable, rare, inimitable and non-substitutable.

These four characteristics of resources describe what Barley (2007) considers strategic assets that, if properly mobilized build and sustain a firm's competitive advantage and improve its performance. According to Barney (1991), enterprises in the same sector can be heterogeneous in respect to their own resources and as resources are not perfectly transferable among enterprises, the heterogeneity and the consequent competitive advantage achieved could be durable over time. However, resources and capabilities are not valuable on their own and are essentially unproductive in isolation (Newbert, 2008). As such, Newbert contends that the key to attaining a competitive advantage is by exploitation of a valuable resource-capability combination. This view is further supported by Bitar and Hafsi (2007), who opine that resources and capabilities are sources of competitive advantage, but they do not necessarily contribute to competitive advantage.

However, despite the increased literature devoted to use of RBV. The theory has its own critics. According to Hedman and Kalling (2003), this theory is criticized for neglecting the obstacles to dynamics and managements. Chan et al. (2004) similarly criticizes the theory for its implicit assumption of static equilibrium yet competitive advantages stem from developing current capabilities that are highly effective in responding to the organizational environment.

For firms to attain competitive advantage in this competitive environment, they need to provide value to customers. This value can be derived from either cost advantage, service or differentiated products. Resource-based theory therefore, focuses on the relationship between a firm's internal resource stability and the ability to stay competitive through its strategy

formulation. Resource-based view theory (RBV) has also been extended by Grant (1991) to encompass competitive strategy.

According to Grant, Resource-based View Theory links competitive strategies and capabilities to value creation. He posits that not only do capabilities need to be considered as the base to develop competitive strategy but they also need to be renewed and maintained by strategist. Hence RBV is important to understand value may stem from strategic alignment of resources and competitive strategies. In developing their competitive strategies the manufacturing firms in Kenya may pay attention to the resources existing within the firm so as to be able to create value for its customers.

Finney, Campbell and Powell (2005); and Makadok (2001) write about the fact that a firm may reach a sustainable competitive advantage through unique resources which it holds, and these resources cannot be easily bought, transferred, or copied, and simultaneously, they add value to a firm while being rare. It also highlights the fact that not all resources of a firm may contribute to a firm's sustainable competitive advantage. Varying performance between firms is a result of heterogeneity of assets (Helfat & Peteraf, 2003) and RBV is focused on the factors that cause these differences to prevail. The RBV theory is relevant to the current study and objectives because organizations need to identify their unique resources and how they can use such resources to deliver quality products and services and thus achieving sustainable competitive advantage in the market which is characterized by stiff competition. This theory anchors this study since it shows how manufacturing firms can use the resources they have to adopt strategies that will help them achieve superior performance.

2.1.3 Cost Differentiation Theory

According to Porter (2011), a firm develops its business strategies in order to obtain competitive advantage over its competitors. It does this by responding to five primary forces: the threat of new entrants, rivalry among existing firms within an industry, the threat of substitute products/services, the bargaining power of suppliers, and the bargaining power of buyers. A firm assesses the five competitive forces in a given industry, then tries to develop the market at those points where the forces are weak (Penrose & Penrose, 2009). For example, if the firm is a low-cost producer, it may choose powerful buyers and sell them only products not vulnerable from

substitutes. The firm therefore positions itself so as to be least vulnerable to competitive forces while exploiting its unique advantage of cost leadership. A firm can also achieve competitive advantage by altering the competitive forces. Firms also increase bargaining power over their customers and suppliers by increasing their customers' switching costs and decreasing their own costs for switching suppliers. The five competitive forces model provides a solid base for developing business strategies that generate strategic opportunities.

According to Porter (2011) competitive advantage grows fundamentally out of value a firm is able to create for its buyers that exceeds the firm's cost of creating it. Value is what buyers are willing to pay and superior value stems from offering lower prices than competitors for equivalent benefits or providing unique benefits that more than offset a higher price. Penrose and Penrose (2009) propose three generic strategies requisite for competitive advantage: Cost leadership, differentiation and focus. According to Porter (Porter, 2008), a low cost producer must find and exploit all sources of cost advantage. Low cost producers typically sell standard or no frills, product and place considerable emphasis on reaping scale or absolute cost advantages from all sources. If a firm can achieve and sustain overall cost leadership, then it will be an above-average performer in its industry provided it can command prices at or near the industry average.

Porter (2008) claims that cost leadership requires aggressive construction of efficient-scale facilities, vigorous pursuit of cost reductions from experience, tight cost and overhead control, avoidance of marginal customer accounts, and cost minimization in areas like research and development, service, sales force and advertising. A firm's cost position gives the firm a defense against rivalry from competitors, because its lower costs mean that it can still earn returns after its competitors have competed away their profits through rivalry. Any cost leadership strategy has to be one in which a firm is able to achieve the lowest cost of operation per unit of production, compared to others in the same industry. An overall cost leadership strategy concentrates attention on a company's value chain resulting in low-cost products and services (Ramaswamy & Namakumari, 1996).

According to Porter (1985), in differentiation strategy a firm seeks to be unique in its industry along some dimensions that are widely valued by buyers. It selects one or more attributes that many buyers in an industry perceive as important and uniquely positions itself to meet those needs. The means for differentiation are peculiar to each industry. Differentiation can be based on the product itself, the delivery system by which it is sold, the marketing approach and a broad range of other factors. A firm that can achieve and sustain differentiation will be an above-average performer in its industry if its premium price exceeds the extra costs incurred in being unique.

Differentiation provides insulation against competitive rivalry because of brand loyalty by customers and resulting lower sensitivity to price. It also increases margins, which avoids the need for a low-cost position. The resulting customer loyalty and the need for a competitor to overcome uniqueness provide entry barriers. Differentiation yields higher margins with which to deal with supplier power and clearly mitigates buyer power since buyers lack comparable alternatives and are thereby less price sensitive (Barney, 2014). According to Porter (2008) in this strategy the firm can choose to concentrate on a select customer group, product range, segment of a market, geographical areas or service lines. Focus strategy is also based on adopting a narrow competitive scope within an industry that large firms may have overlooked. A successful focus strategy depends upon an industry segment large enough to have good growth potential but small enough not to be important to other major competitors (Akan et al., 2016). Focus strategy is twofold. In cost focus a firm seeks a cost advantage in its target segment, while in differentiation focus a firm seeks differentiation in its target segment. Both variants of the focus strategy rest on differences between the focuser's target segments and other segments in the industry (Lavie, 2006).

According to Atikiya (2015), the strategy rests on the premise that the firm is able to serve its narrow strategic target more effectively or efficiently than competitors who are competing more broadly. As a result the firm achieves either differentiation from better meeting the needs of the particular target or lower costs in serving this target or both. A firm can create strategic advantage by choosing to become specialized and focus on a market niche instead of competing broadly in the market (Koo, Koh, & Nam, 2004).

2.1.4 Open Innovation Theory

This theory is attributed to Schumpeter and Redvers (1934). The theory had low status until end of 1970s. The economic depression of the 1970s and the subsequent boom lead to the conclusion that innovations are the determinants responsible for most growth when an economic boom begins in a period of depression. Earlier on, Schumpeter (1943) had credited benefit to dynamic changes coming about because of a development. To begin with he takes an industrialist shut economy which is in a stationary balance. This harmony is portrayed by what Schumpeter calls a "roundabout stream" which keeps on rehashing itself for ever. In such a static state, there is superbly focused balance. The cost of every item just equivalents its cost of creation and there is no benefit.

Just exogenous elements like climate conditions can cause changes in the roundabout stream position. In the roundabout stream position products are being delivered at a steady rate. This normal work is being performed by the salaried directors. The business visionary exasperates the channels of this roundabout stream by the presentation of an advancement. In this way Schumpeter doles out the part of a trailblazer not to the industrialist but rather to the business person. He underscores making new esteem creating exercises as a method for scanning for higher benefits from development. Such esteem age can be tapped from selection of the green condition.

Henry Chesbrough, also called the father of open innovation wrote the first definition of open innovation. Chresbrough (2006) defined open innovation as “a model which assumes that firms are able to improve their business to use internal and external ideas, and internal and external paths to market that will translate to their competitiveness in the market. Mulej et al., (2010) states that open innovation means radical invention of innovation, for which the basis is a new strategy of research and the creation of innovation for further benefits to the users and owners of new ideas. In fact, many leading companies summarized the open innovation as a way to develop new products. Open innovation theory is relevant to this study because it sets different rules of practice of discovery, development, and implementation of useful innovations for customers, which will be analyzed below by empirical research in the field of management.

Sundbo (1998) argues that innovations are important to the national economy during periods of depression. He adds that it is also important to individual organizations because it portends potential for expansion and future profits. Being innovative includes adopting issues of current global concern in to business processes in a manner that gets the business competitive advantage. According to Wanjohi (2016) the current global concern is climate change and its effects to human lives and livelihoods. Well managed organizations are innovatively adopting the green environment in their processes to gain competitive advantage. This theory supports firm innovation variable in this study.

2.2 Empirical Review

Malik and Kotabe (2009) conducted a study on dynamic capabilities, government policies, and performance in firms from emerging economies by developing a model of the dynamic capability mechanism in Emerging Market manufacturing Firms (EMF). The authors came up with EMF dynamic capability mechanism, such as reverse engineering, organizational learning, and manufacturing flexibility and tested hypotheses on a sample of Pakistani and Indian manufacturing firms.

Mwihaki (2015) conducted a study on the factors influencing performance tea firms in Mombasa County, Kenya. The study adopted a descriptive research design. The study population was 120 Tea Firms owners in Mombasa County. This study used simple random sampling to sample 93 respondents. The study used a questionnaire in order to collect data. From the findings the study concluded that that regulatory and administrative environment cause major obstacles for Tea Firms to access financing.

2.2.1 Business Strategies and Performance of Manufacturing Firms

Business strategy is basically concerned with the patterns of decisions or choices that managers of firms make over which market to compete in and how the business can add more value for buyers in order to gain more advantage than competitors (Acquaah et al., 2016). Porter (1980) generic strategy posits that an organization can generate competitive advantage and ostensibly maximize performance either through cost-leadership, differentiation or a market focus strategy. These three generic strategies were defined along two dimensions' strategic scope and strategic strength. Strategic scope is a demand-sided dimension and looked at the size and composition of

the target market while strategic strength is a supply-sided dimension and looks at the strength of core competency of the firm. Porter (1980) in particular identified two competencies that he felt were most important product differentiation and product cost (Tanwa, 2013). Porter (1980) further explains that if sometimes a firm can successfully pursue more than one approach as its primary target, it is rarely possible. This is because effective implementation of any of these strategies usually requires total commitment and supporting arrangements that are diluted if there is more than one primary target (Furrer et al., 2008).

Following Porter's early work numerous studies have found a positive relationship between generic strategies and firm's performance (Tansey et al., 2014). More recent studies also show a link between strategy type and organization performance. In USA, Banker et al. (2014) further investigated the relationship between strategic positioning of firms and the sustainability of firm performance. The study utilized publicly available archival data consisting of 12,849 firm-year observations for the period 1989-2003. In the first stage of the analysis, factor analysis is used to determine firms' strategic positioning. The resulting factor scores are subsequently used in regression analysis to investigate the sustainability of performance based on the strategic positioning of firms. The study found out that pursuing a differentiation strategy leads to more sustainable financial performance Compared to following cost leadership strategy. The findings indicated that both cost leadership and differentiation strategies have a positive contemporaneous performance. However, the differentiation strategy allows a firm to sustain its current performance in the future to a greater extent than a cost leadership strategy. However, differentiation strategy was associated with greater systematic risk and more unstable performance.

Parnel et al. (2018) examined the prospective role played by perceived environmental uncertainty in the strategy-performance linkage among SMEs in China, Turkey, and the USA. The strategic group level of analysis was employed. Generic strategy, environmental uncertainty, and performance were measured by previously validated scales. The results indicated that the combination strategy-performance linkage was supported in Turkey and the USA. In China, the highest performing strategic group emphasized a focus orientation accompanied by neither cost leadership nor differentiation, and the lowest performing group was comprised of low cost businesses.

In USA, Parnell (2010) investigated the link between business strategy and performance, giving special attention to the composition of combination strategies. The survey assessed business strategy and performance and involved managers representing 277 retail businesses. The results showed that the combination strategy was associated with higher performance in some but not all instances. Strategic clarity – the extent to which a single strategy reflects the organization's strategic intent – was also associated with organizational performance. Businesses with high and low strategic clarity outperformed those with moderate strategic clarity.

Nandakumar et al. (2011) examined the relationship between business-level strategy and organizational performance and to test the applicability of Porter's generic strategies in explaining differences in the performance of organizations. The study was focused on manufacturing firms in the UK belonging to the electrical and mechanical engineering sectors. Data were collected through a postal survey using the survey instrument from 124 organizations and the respondents were all at CEO level. Both objective and subjective measures were used to assess performance. Non-response bias was assessed statistically and it was not found to be a major problem affecting this study. Appropriate measures were taken to ensure that common method variance (CMV) does not affect the results of this study. Statistical tests indicated that CMV problem does not affect the results of this study. The results of this study indicate that firms adopting one of the strategies, namely cost-leadership or differentiation, perform better than "stuck-in-the-middle" firms which do not have a dominant strategic orientation. The integrated strategy group has lower performance compared with cost-leaders and differentiators in terms of financial performance measures. This provides support for Porter's view that combination strategies are unlikely to be effective in organizations. However, the cost-leadership and differentiation strategies were not strongly correlated with the financial performance measures indicating the limitations of Porter's generic strategies in explaining performance heterogeneity in organizations.

In UK, Nandakumar et al. (2010) examined the moderating effects of external environment and organizational structure in the relationship between business-level strategy and organizational performance. The focus of the study is on manufacturing firms in the UK belonging to the electrical and mechanical engineering sectors, and respondents were CEOs. Both objective and subjective measures were used to assess performance. Non-response bias was assessed

statistically and appropriate measures taken to minimize the impact of common method variance (CMV). The results indicated that environmental dynamism and hostility act as moderators in the relationship between business-level strategy and relative competitive performance. In low-hostility environments a cost-leadership strategy and in high-hostility environments a differentiation strategy lead to better performance compared with competitors. In highly dynamic environments a cost-leadership strategy and in low dynamism environments a differentiation strategy are more helpful in improving financial performance. Organizational structure moderates the relationship of both the strategic types with ROS. However, in the case of ROA, the moderating effect of structure was found only in its relationship with cost-leadership strategy. A mechanistic structure is helpful in improving the financial performance of organizations adopting either a cost-leadership or a differentiation strategy.

Yuliansyah et al. (2017) investigated the extent to which business strategy mediates the relationship between reliance on integrative strategic performance measurement (RISPM) and organizational performance. The study involved a self-administered survey of 157 managers in Indonesian financial institutions. The study tested direct and indirect effects among the hypothesized variables. The findings indicated that business strategy has a full mediating effect on the relationship between RISPM and organizational performance.

Phongpetra and Johri (2011) investigate automobile manufacturers in Thailand and the effects that their business strategies had on their organizational performance. For empirical analysis, the method of confirmatory factor analysis and the structural modeling method were applied in order to refine business strategies, functional strategies, financial, and marketing organizational scales. This research revealed that there were three significant business strategies of automobile manufacturers in Thailand which had a positive effect on the organization's financial and marketing performance: cost focus (the first priority), cost leadership (the second priority), and integrated cost and differentiation (the third priority). All the priorities of functional strategies that had a positive effect on the financial and marketing organization performance were subsequently analyzed as follows: manufacturing strategy (most significant), human resource management (the second most significant), marketing strategy (the third most significant), and the financial strategy (the least significant)

In Nigeria, O'Regan et al. (2010), examined the relations between Porter's (1980) generics strategies in explaining the difference in performance in manufacturing organizations in Nigeria the findings indicated that firms adopting cost leadership and differentiation performed better than stuck in the middle firms which do not have a dominant strategic orientation. This study provided support that for Porter's view that combination strategies are unlikely to be effective in organizations, however cost leadership and differentiation strategies were not strongly correlated with financial performance measures indicating limitation in Porter's generic strategies in explaining performance heterogeneity in organizations.

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Seedee (2012) investigated business strategies as a moderating role affecting the relationship between best business practices and firm's performance. Data were collected from 169 Thai manufacturing firms. The data in this study were analyzed using parametric statistical methods.

Descriptive statistics and hierarchical regression analysis were used to analyze the data. The finding indicated that the firm's performance could be explained by 5 out of 9 categories of best business practices. Leadership practice, customer and market focus practice, human resource practices, process management practice and process innovation practice were five predictors of firm's performance. Besides, the results of this study indicated that the relationship between best business practices and firm's performance could be influenced by business strategies.

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Onditi (2018) evaluated competitive strategies and firm performance through a review of existing literature. The Resource – Based view, the capability – based view and the Market – Based view were analyzed as the theoretical perspectives of the study. The porter's generic strategies and the value discipline model were used to describe the competitive strategy options available to business firms as well as the qualitative and quantitative measures of firm performance. The empirical studies showed inconsistencies in the research findings for which knowledge gaps were identified. The study had proposed a conceptual model with two conceptual hypotheses. The paper concluded that though the generic strategies have a positive effect on the performance of business firms and that the individual effect of each of the generic strategies on firm performance varies from one industry to another. It was recommended that further studies be done on the effect of hybrid strategies on firm performance and that firm characteristics as a moderating variable should be studied in the competitive strategies - firm performance relationship.

In Kenya a study by Kisaka and Okibo (2014) on the effects of generic strategies on the expansion of academics programmes for competitive advantage. Descriptive research design was used and a case study approach adopted. The target population of the study was a total population of 630 comprising of 600 lecturers and 30 senior university management staff. Stratified random sampling technique was used to pick a sample size of 103 respondents to carry out the study using questionnaires and qualitative approaches. The study found out that customer focus and differentiation strategies had a positive correlation with the expansion of academic programmes moreover combining them had an effect on increasing competitive advantage of the university.

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2.2.2.1 Information Technology

In Brazil, Yoshikuni and Albertin (2018) explored how strategic information systems (SIS) support business strategy and corporate performance. This study used quantitative survey data from 389 Brazilian companies during economic crises and analyzes them using structural equation modeling. The study established that there was strong evidence that SIS promotes capacity and flexibility to create competitive strategies in response to environmental changes. SIS significantly and positively predicts firms' use of prospector strategies, reducing the need to sacrifice efficiency for innovation. SIS can predict corporate performance more strongly than firms strategic orientations can.

Al-Henzab et al. (2018) explored the relationship between three variables of strategic orientation (market orientation, technology orientation entrepreneurial orientation) and organizational performance in the Jordanian pharmaceutical sector. This study employed a quantitative research design where 252questionnaires were collected form respondents operating in various pharmaceutical companies in Jordan to obtain necessary data to test the hypotheses developed for the study. Multiple regressions were used to analyze the research data. The results of the analysis revealed that strategic orientations were positively and significantly related to organizational performance. The findings also showed that market orientation contributed the most to the enhancement of organizational development followed by technology orientation and finally entrepreneurship orientation.

Javier (2007) sought to establish the relationship between information technology (IT) investments and performance in the purchasing function. A study is made not only of whether this relationship exists, but also of the mediating role played by both purchasing practices and the strategic integration of purchasing. Statistical analyses of the data provided by 141 purchasing managers of medium and large Spanish companies in three industrial sectors. The study found that the idea that IT investments exert a positive effect on purchasing operational performance. Nonetheless, the results show that this effect arises because IT allowed companies to implement certain purchasing practices and, partially, because it facilitates greater strategic integration of the purchasing function.

Zhu et al. (2019) examined the different impacts of six variables on firm technological innovation performance in different high-tech industries in China. Through a comparative analysis of data about growth enterprises market board (GEM)-listed companies, this study attempted to get some conclusions, to help firms in different high-tech industries use resources more rationally and to improve technological innovation performance more effectively. This study constructs semi-parametric models based on the relevant data of GEM-listed companies during 2010 to 2015 for different high-tech industries. The empirical results show that R&D expenditures have a significant positive impact on firm technological innovation performance in most high-tech industries, but not in electronic and communication equipment manufacturing industry; R&D personnel investment and government subsidies have significant positive impacts on firm technological innovation performance in knowledge-oriented industries; technology

diversity has a significant positive impact on firm technological innovation performance in technology-oriented industries; the proportion of exports showed an inverted U-shaped relationship with firm technological innovation performance in electronic and communication equipment manufacturing industry, while firm size shows an inverted U-shaped relationship with firm technological innovation performance in general equipment manufacturing industry; and the effect of semi-parametric model fit is superior to the general parameters model.

Wang (2019) addressed the ambidextrous innovation (radical and incremental) associated with firm performance on the SMEs and investigate the moderating effect of environmental factors on the relationship between technological innovation and firm performance. The study formulated a path model with the variables to investigate the impacts of the two different innovation strategies and their joint effects on firm performance. Meanwhile, they hypothesized that external environmental factors – market dynamism, labour availability, business cost and competitive hostility – moderate the association of radical and incremental innovations with firm performance. The validity of the proposed model was evaluated using a structural equation modelling approach. Confirmatory factor analysis was used to evaluate the convergent validity of the constructs. The study found that positive association between radical innovation and firm performance; it showed that the radical innovation strategies were positively related to firm performance in SMEs. They also found that the relationship between radical innovation and firm performance was moderated by environmental factors. Second, they found that the incremental innovation strategies had a negative impact to firm performance, and the relationship between incremental innovation and firm performance had no moderated by environmental factors.

Gu and Surendra (2004) examined the issue of whether investment in information and communication technology (ICT), combined with organizational changes and worker skills contribute to better performance in Canadian firms. The study found that Canadian firms actively engaged in organizational changes in the areas of production and efficiency practices, human resource management (HRM) practices, and product/service quality-related practices. These practices along with ICT use were found to be related to better firm performance. The study also found that while ICT is productive on its own, it is more productive in firms that combine high levels of ICT with high levels of organizational change. The firms that combined ICT with organizational changes have a high incidence of productivity improvement and have high rates

of innovation. These findings seem to suggest that to be successful, firms typically need to adopt ICT as part of a "system" or "cluster" of mutually-reinforcing organizational approaches. It was also found that ICT and human capital are complements in the service sectors. The firms that combined high levels of ICT and high levels of worker skills had better firm performance.

Chege et al. (2020) examined the association between technology innovation and firm performance in Kenya by considering the impact of entrepreneur innovativeness on this association. A sample of 240 enterprises and structural equation modeling were used in the analysis. The findings indicated that technology innovation influences firm performance positively. The study recommended that entrepreneurs should develop innovative strategies to actualize firm performance. Government policy should aim at improving ICT infrastructure; promoting small and medium-sized enterprises' (SMEs') technological externalities within the industry, and establishing ICT resource centers to support SME performance. The study's findings enrich existing theories and contribute to business management practices in both developed and developing countries.

2.2.2.2 Differentiation Strategy

Differentiation strategy involves creating market positions that is perceived as being unique industry wide and that is sustainable overlong run (Porter, 1980). In a differentiation strategies emphasis is on creating value through uniqueness achieved through services innovations, superior services, creative advertising, better supplier relationships, better product performance, design, brand image and control of distribution channels leading to better services or in an almost unlimited number of ways. Firms following a differentiation strategy appeals to a sophisticated or knowledgeable consumer interested in a unique or quality product. The uniqueness of differentiation strategy permits the organization to charge premium prices for its products and/or services.

Empirical evidence shows that adapting a differentiation strategy positively influences performance (Agyapaong& Boamah 2013; Li et al., 2006; Tanwa, 2013). Davcik and Sharma (2015) examined the impact of product differentiation, marketing investment and brand equity on pricing strategies. The study used an aggregate data set for 735 fast-moving consumer goods (FMCG) brands, taken from Nielsen (10,282 households). Using a cluster analysis revealed that

brand equity, marketing investment and product differentiation are closely associated with price and that the premium price is significantly associated with product differentiation based on innovation and company type.

In Jordan, Al-alak and Tarabieh (2011) paper examined the relationship between customer orientation, innovation differentiation, and market differentiation and organization performance in the banking industry in Jordan. Organization performance was measured using market performance. The study showed that customer orientation contributes positively to organization performance through innovation differentiation and market differentiation. The study further revealed that; the impact of innovation differentiation on organization performance is greater than the impact market differentiation on performance and both innovation differentiation and market differentiation simultaneously achieve greater competitive advantage.

In Ghana, Shafiwu and Mohammed (2013) examined the effect of product differentiations on profitability in the petroleum industry in Ghana. Measuring profitability in terms of earning per share and profit margin the study found that there was a positive relationship between product differentiation and profitability in Total Ghana limited.

Atikiya et al. (2015) examined the effect of differentiation on performance of manufacturing firm in Kenya. A survey questionnaire and an interview guide was used to collect data from 131 firms out of the 170 targeted drawn from 12 key industrial subsectors located within Nairobi and its environs. The study adopted descriptive and explanatory research design. The findings of their study revealed that manufacturing firms in Kenya were positively significantly influenced by differentiation. The study further revealed that manufacturing firms adopt a differentiation strategy to increase their competitiveness and performance.

2.2.2.3 Customer Focus Strategy

This strategy is also known as segmentation strategy or niche strategy. In the focus strategy a firm targets a specific segment of the market (Arasa & Gathinji, 2014). The firm can choose to focus on a selected customer group, product range geographical or service line. Firms pursuing focus strategies have to be able to identify their target market segment assess and meet the needs and desires of buyers in the segment better than any other competitors (Porter, 1980). It is hoped that by focusing its marketing efforts on one or two narrow market segments and tailoring its

marketing mix to these specialized markets the firm can meet the needs of the target market better and become less vulnerable to competition from rivals or substitute.

Focus strategies can be based on differentiation or lowest cost (Porter, 1980). The choice of offering low prices or differentiated products or services should depend on the needs of segments and the resources and capabilities of the firm. The firm typically looks to gain competitive advantage through product innovation and or brand marketing rather than efficiency. Focusing is based on adopting a narrow competitive scope within an industry aimed at growing market share through operating in a niche market or in market either not attractive to or overlooked by large competitors (Allen & Helms, 2006). Researchers have found support for Porters (1980) market focus strategy.

Asiedu (2016) assessed the use and impact of market segmentation practices on banks performance in Colombia, post consolidation period of 2012 to date. The methods applied were both primary and secondary while the design was mainly exploratory, relating basic market segmentation variables like market share, geographical location and pricing to bank performance. Statistical test using Herfindal Hirchman Index (HHI) was designed to test for market concentration against bank's performance. Findings from the study indicate that, segmentation practices have immensely impacted on the performance of the selected banks in Colombia. The study exposed that the banks have used segmentation practices to lower their overall operation unit cost, expand their market shares, retain their customers, better their communications, increase profitability and focus on their company. They are well positioned in capital strength and they are the best capitalized banks in Colombia, thanks to their segmentation strategy called data-informed strategy.

Onaolapo et al. (2011) examined the impact of marketing segmentation practices on the performance of selected Nigerian commercial banks in the post consolidation era 2005 to date. Data employed were mainly secondary while the research design was exploratory in nature relating such basic variables as market segmentation practices of market share; pricing and geographical branch location to performance. Statistical test using Herfindahl Hirschman Index was used as surrogate for market concentration which was tested against performance. Findings

indicated that banks with high level of market share demonstrate high customer retention ability and lower overall unit operating expenses.

Mbithi, Muturi and Rambo (2015) investigated the performance implications of using two marketing strategy approaches; developing new market segments and extending geographically in the Kenyan sugar industry. The findings showed that developing new segments influenced sales volumes which positively affected firm's profitability. Kimani and Wagoki (2015) assessed strategies for gaining competitive advantage in insurance firms in Kenya with specific focus on generic strategies. The study collected data from production managers and farm managers. It used descriptive analysis for individual research indicators while correlation and regression analysis were used to establish the effect of vertical, horizontal and diagonal integration on competitive performance. The study found out that customer focus strategies have a positive effect on the performance of insurance firms in Kenya.

Atikiya et al. (2015) examined the effect of market focus strategy on performance of manufacturing firm in Kenya. A survey questionnaire and an interview guide was used to collect data from 131 firms out of the 170 targeted drawn from 12 key industrial subsectors located within Nairobi and its environs. The study adopted descriptive and explanatory research design. The findings of their study revealed that manufacturing firms in Kenya were positively significantly influenced by customer focus strategy. The study further revealed that manufacturing firms adopt a customer focus strategy to increase their competitiveness and performance.

2.2.2 Government Policies, Business Strategies and Performance of Manufacturing Firms

The link between organization strategy, government policies and performance is a classical theme in strategic management; business strategy determines organization structure which in turn influences organization performance. The success of business strategies is affected by extend of which government policies influence the effectiveness of the organization operations in the external environment. Porter (1980) emphasized that each strategy requires different resources and organization arrangements to be successful in achieving the primary goal of strategy. Prajogo and Sohal (2016) identified that government policies is positively related to

performance because it establishes a system and culture that will provide a fertile environment for organizations to operate as a result it enhances the performance of a the strategy.

Government policy, positions and guidelines of government, schemes and incentives support systems for the private sector, particularly for the manufacturing firms (Dandago & Usman, 2011). Many recommendations have emerged from the studies and deliberate efforts are still needed on the part of governments, through its series of efficient policies affecting competition in the market to nurture a climate that is conducive to successful and profitable operations of manufacturing firms (Dandago & Usman, 2011; Sobri Minai & Lucky, 2011).

Zhang et al. (2017) empirically investigated the effects of institutional support on product and process innovation and firm performance and described how dysfunctional competition influenced relevant outcomes. The study developed a research model based on institution-based view and tested it using structural equation modeling and empirical data collected from 300 manufacturers in China. The results showed that institutional support positively affected product and process innovation and firm performance. Both product and process innovation improved firm performance. The findings revealed that dysfunctional competition significantly reduced the positive effects of institutional support on product and process innovation but left the effects of institutional support and product and process innovation on firm performance unaffected.

Empirical studies show positive relationship between government policies and cost reduction; Ayandele and Akpan (2015) study on the practice, challenges and benefits of government policies in Nigeria manufacturing firm revealed significant reduction in operating expenses and manufacturing costs were recorded by firms that received government support. Wei et al. (2015) examine the effect of government support in the Chinese context considering a different type of impact: the innovation performance of firms. They divided government support into vertical and horizontal support, and adopted an empirical research approach in this study. In the results, the authors highlighted that vertical support in the form of direct research and development (R&D) subsidies and horizontal support in the form of regional innovation policy have a positive impact on the innovation performance of firms.

Maggioni et al. (1999) examined how the most important government program to encourage entrepreneurship in Italy affects several aspects of the early performance of new firms. Results showed that the public program produced mixed effects: government aid allowed firms to have a higher level of technology, but government funding gave rise to entrepreneurial start-ups, which are not always fully efficient. Another research has linked financial support measures directly to performance variables, such as sales, profitability and productivity for new firms, and the results have been again mixed.

Li et al. (2015) examined the effect of government support on the innovation performance of firms in the Chinese context. The methodology involved divided government support into vertical support and horizontal support, and adopted an empirical research approach in this study. The study collected the data of 343 enterprises in China that had been identified as innovative enterprises, including their characteristic data, government support data and patent data. Negative binomial regression was used to quantitatively examine the relationship between government support and the innovation performance of firms. The results showed that both vertical support in the form of direct research and development (R&D) subsidies and horizontal support in the form of regional innovation policy positively influence the innovation performance of firms. In addition, direct R&D subsidies are more likely to experience the enhanced benefits of carrying out tax credit policy on the innovation performance of firms.

In Spain, Garcia-Tabuenca and Crespo-Espert (2010) adopted a counterfactual approach to evaluate the effects of support measures on Spanish manufacturing firms' performance. Three groups of companies that constitute the casuistry of long-term financial supports to companies (guarantees, guarantees and preferential funding, or just preferential funding), as well as another two control groups are studied. The results suggest that government support for manufacturing firms is relevant at financial and business efficiency levels, mainly in the weakest companies although they do not manage to reduce their costs until they reach relative levels similar to those reached by companies not accessing the guarantee system.

Zindiye, Chiliya, and Masocha (2012) investigated the influence of government and other institutions' support on the performance of firms in the manufacturing sector. The results indicated that there is a positive relationship despite the prevailing economic conditions. Based

on the results it can be concluded that duty drawback system and skills training are the most important initiatives. Fajnzylber et al. (2009) consider the role of diverse types of government support on firm performance in Mexico. Research found that the significant within-country differences in firm productivity observed in developing economies are due in part to market and government failures that limit the ability of micro-firms to reach their optimal sizes.

Guthrie et al. (2015) sought to to report on an industry policy implementation case involving around 30 manufacturing firms, where the intellectual capital (IC) lens, and especially the intellectual capital navigator (ICN) approach, was found to be very useful for evaluating alternative servitisation strategies. Servitisation is a form of business model innovation and as such involves restructuring the firm's resource deployment system including its IC resources. The ICN was one of several methods and themes used by a sample of manufacturing firms during a 12 month period. Data capture were through video filming, observation, and formal interviewing during and after the interventions. The ICN is considered to be the third most valuable theme in a strategic and operational servitisation programme for manufacturing firms, primarily in the domain of effectiveness evaluation of alternative resource deployment strategies and as such should be one of the key dimensions in a business model template for manufacturing firms that aim to servitize. This research also illustrated the usefulness of the intellectual capital lens in the policy implementation process.

Hansen, Rand, and Tarp (2009) analyze whether direct government assistance during start-up and other forms of interaction with the State sector have influenced the long-run performance of manufacturing firms in Vietnam. Results show that government assistance helps firms improve their performance and survival perspectives.

Ehie and Muogboh (2016) sought to formulate the manufacturing strategy in a developing country with particular reference to Nigeria in sub-Saharan African country. Using survey methodology and the partial least squares–structural equation modeling technique, the study established that in addition to the four basic environmental factors–business cost, labor availability, competitive hostility and environmental dynamism, both government policies and the adopted manufacturing practices have significant effects on the manufacturing strategic

priorities. Among other findings, the environmental factors of government policies and the type of manufacturing practices adopted have significant effects on manufacturing strategy.

In Kenya, According to Koech and Namusonge (2015) compliance with procurement regulatory framework plays a very important role in bringing forth improved organizational performance. In addition to compliance with procurement regulatory framework, other factors that improve organizational performance include transparency, professionalism and procurement procedures. The research further established that compliance with procurement regulatory policy framework enhance organizational performance by bringing forth transparency and professionalism within the procurement process. However, a research by Kasisi et al. (2014) revealed that government regulations have a negative impact on procurement performance. The research further showed that compliance with government procurement regulation was accompanied with a high level of bureaucracy which led to adversely affected procurement performance and the overall organizational performance. Nevertheless, the regulatory framework plays a very important in enhancing organizational performance as shown in a research conducted by Owuoth and Mwangangi (2015) whose research showed that a comprehensive policy regulatory framework promotes transparency enhancing organizational performance. According to Nyaboke et al. (2013) policy regulatory framework in procurement has a significant impact on integrity, accountability, professionalism and fairness. Additionally, the research findings showed that policy regulatory framework maximizes the level of service provision within the organization. Therefore regulatory framework leads to improvement in organizational performance.

2.2.3 Innovation Processes, Business Strategies and Firm Performance

In Iran, Hajar (2015) examined and analyzed the effect of business strategy on innovation and firm performance in the small industrial sector. Especially, to analyzed partially the effect of business strategy on innovation, the effect business strategy on firm performance, and the effect innovation on firm performance. The sample using purposive sampling of 55 business units. Primary data collection instrument was done by giving a questionnaire to the owner-managers of the wooden furniture manufacturing. Analysis of the data used to test the hypotheses of partial least squares (PLS). The results showed that partially, business strategy had a positive effect on innovation, business strategy had a positive effect on firm performance, and innovation had a positive effect on firm performance.

Otero-Neira, Lindman and Fernández (2009) carried out a study to understand the conditions that make innovation profitable. The methodology used in the analysis is a multi-case comparative research of low-tech, small and medium-sized furniture firms from Italy, Spain and Finland. The study showed some evidence that innovation positively influences business performance. In particular, the results suggest that different performance levels are linked to the type of innovation developed.

In Greece, Beneki et al. (2012) attempted to investigate the relationship between innovativeness and firm performance and concluded on the unwillingness of the private sector to invest in R&D and the low productivity of innovation. Thus, they suggest leveraging private investment in innovation through public investment. Bronwyn et al. (2009), using the structural multistage model which incorporates information on innovation success, analyses impacts of innovation on productivity of manufacturing firms in Italy. They found that the international competition fosters R&D intensity, especially within high-tech firms. Determinants of engagement in both product and process innovations were firm size, investment in R&D and in equipment. Also, they found that both product and process innovation influenced the productivity of manufacturing firms; especially process innovation. However, they observed that productivity of larger and older firm among manufacturing firms was less influenced by their innovativeness.

Mohamad and Sidek (2013) evaluated the impact of various innovation dimensions on the performance of SMEs. A total of 284 samples were collected from SMEs in the food and beverage, textiles and clothing and wood-based sub-industries. The data were analyzed using a hierarchical regression analysis. The findings confirmed the hypotheses that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter. Besides consolidating the existing theory on the importance of innovation for explaining a variation in firm performance, the findings also inform SMEs and policy makers that innovation is a critical factor in today's entrepreneurial activities. Further studies should look into how SMEs could calculate cost-benefit ratio of innovation and how they could opt for internal or external sources of innovation before actual innovation is undertaken.

In Malaysia, Rosli and Sidek (2013) evaluated the impact of various innovation dimensions on the performance of SMEs. A total of 284 samples were collected from SMEs in the food and beverage, textiles and clothing and wood-based sub-industries throughout the country. The data were analyzed using a hierarchical regression analysis. The findings confirmed the hypotheses that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter.

Kowo et al. (2018) sought to determine if process innovation has significant effect on organizational performance and also to examine if there is a significant relationship between Process Service Modification and Sales Volume. 114 copies of questionnaire were administered to NNPC Staffs-Ikoyi branch in Lagos State Nigeria to get primary data that treated and tested appropriate research questions and hypotheses accordingly. The study adopted survey method and Cronbach Alpha for test retest reliability. SPSS was also employed in testing the research hypothesis. The study found out that process innovation has a significant effect on organizational performance and there exist a significant relationship between service modification and sales volume.

Crema et al. (2014) analyzed the linkages between company's strategy, open innovation and innovation performance, focusing on small and medium enterprises (SMEs). In more detail, the aim was to investigate the influence of firm strategy on the level of openness adopted and then the impact of open innovation on firm performance. Finally, the influence of context-specific variables (such as firm size, technology intensity, geographical area, experience of the company and technology turbulence) on the relations mentioned above was verified. A survey was conducted in the Italian manufacturing context and a database of 107 responses was obtained. The constructs of the research framework were created and validated using factor analysis; further, structural equation modeling was performed to verify the hypothesis about the studied relations. The obtained model confirmed most of the relations hypothesized, giving useful indications on how to define competitive strategy and coherent level of open innovation to pursue improved firm performance. Results highlighted that firms, which pursue an innovative strategy were those who invest more on technical skills and core competencies. Companies who chose a strategy of diversification were likely to use, exclusively, managerial practices of open

innovation, while firms focused on a strategy of efficiency were inclined toward open innovation practices and, to a lesser extent, to the development of core competencies.

In Sri Lanka, Rajapathirana and Hui (2018) explored the relationship among innovations capability, innovation type and on the different aspect of firm performance including innovation, market and financial performance based on an empirical study covering insurance industry in Sri Lanka. The research framework developed in this study was tested on 379 senior managers of insurance companies. The empirical verification of assumption of this model gave evidence to confirm the relationship between innovation capabilities; innovation efforts and firm performance were significant and strong. The results of this study could lead effective management of innovation capability which helps to deliver more effective innovations outcomes to generate better performance and it would be benefits for management of the insurance companies.

In Turkey, Bayraktar et al. (2017) studied the relationships between competitive strategies, innovation, and firm performance within the context of Turkish manufacturing companies. The data were collected from top management of the firms via Computer Assistant Telephone Interviewing method. One hundred and forty manufacturing firms operating in various sectors including textile, automotive supply, computer and electronics provide the basis for this empirical research. In order to test our model, the study employed structural equation modelling using partial least squares. The results showed that competitive strategies such as cost-leadership and differentiation can lead to innovation, which, in turn, increase firm performance. Managers implement cost-leadership and differentiation strategies to take part in competitive market conditions; however, they should put additional importance on innovation that plays a significant role as a bridge between competitive strategies and firm performance.

Bozic and Sonja (2005) conducted a research on the effects of innovation activities in manufacturing firms in the Republic of Croatia. The research was carried out on 498 manufacturing firms in manufacturing and service enterprises and analyzed using multiple regression. Study findings revealed that implementation of innovations led to increased market share, improved product quality and reduced material cost per unit. Lin and Chen (2007) in their study, on innovation and performance, explored the relationship between innovation and firm

performance of manufacturing firms in Taiwan. Their findings reveal that innovation had a weak link with firm sales and that administrative innovation was the most crucial factor in explaining sales rather than technological innovations.

In Belgium, Van Beveren and Vandenbussche (2009), using data from the Community Innovation Survey for Belgium attempt to explore the relationship between firm-level innovation activities and the propensity to start exporting. Their study resulted in significant positive effects of combination of product and process innovation on probability to enter the export market. However, they pointed to endogeneity of innovation activities, and so, observed that firms that have good prospects of entering the export market in the next period are more likely to invest in innovation activities. However in developing countries, findings about the impact of each type of innovation are somehow different.

In Pakistan, Karabulut (2015) explored the effects of innovation types including product, process, marketing and organizational innovation on different aspects of firm performance such as innovative, production, marketing and financial performance in manufacturing companies. Data were collected through survey questionnaires from 150 respondents mainly from production, R&D and marketing departments of manufacturing companies. With the help of SPSS, data were analyzed by factor, reliability, correlation, and regression analysis. The results reveal the positive effects of innovation types on firm performance.

In Turkey, Gunday et al. (2011) explored the effects of the organizational, process, product, and marketing innovations on the different aspects of firm performance, including innovative, production, market, and financial performances, based on an empirical study covering 184 manufacturing firms in Turkey. A theoretical framework was empirically tested identifying the relationships amid innovations and firm performance through an integrated innovation-performance analysis. The results revealed the positive effects of innovations on firm performance in manufacturing industries.

In Finland, Varis and Littunen (2010) examined the information sourcing practices of small- to medium-sized enterprises (SMEs) associated with the development of different types of innovation (product/process/market/organizational). The relationship between different types of innovation and firms' performance is also to be examined. The study was based on a quantitative

study of a sample of SMEs located in the Northern Savo region in Finland. The entrepreneurs completed a questionnaire pertaining to, for example, whether their firms had introduced novel innovations and what were the sources of information behind these innovations. It was established that the introduction of novel product and market innovations appears to be associated with the use of more or less freely accessible information sources. The findings also indicated that the introduction of novel product, process and market innovations is positively associated with firms' growth. None of the types of innovation studied was found to have a positive relationship with firms' profitability.

Waheed (2011) when analyzing the influence of product and process innovations on firms' productivity in Bangladesh and Pakistan found that the process innovation affects more the productivity of firms rather than the product innovation. In Mexican, Brown and Guzman (2014) found that firms that have the higher propensity to innovate are those which are larger in terms of intensity in high technology and market share. Also, they found that Firms which innovate have a level of labor productivity 1.3 times higher than firms that do not innovate. However, their study doesn't distinguish between process and product innovations.

In China, Lu et al. (2020) investigated the relationships between two types of open innovation (OI) strategies (OI breadth and depth) and innovation performance of small- and medium-sized enterprises (SMEs) in China. The study examined how firms' absorptive capacity and government institutional support affect these relationships. Survey data from 236 manufacturing SMEs in China were used to test the proposed model using hierarchical regression analysis. The results showed that both OI breadth and depth are positively related to innovation performance of SMEs. Moreover, this study found that realized absorptive capacity serves as a mediator in the relationships between OI breadth and depth and innovation performance. The potential absorptive capacity and government institutional support moderated the relationship between OI breadth and innovation performance.

Wang (2018) investigated the inbound open innovation and firm performance in different time periods across different organizations. Specifically, a conceptual model at firm level analysis was proposed based on literature review. The model was tested with structural equation modeling, using the empirical data which were collected from 60 research centre projects and 62 business

unit projects in 2008. Results revealed the causal relationship between the implementation of inbound open innovation and the firm performance in both research centre and business unit. Comparative results showed that regarding research centre, increasing the frequency of inbound open innovation, efficient integral R&D activities and the higher degree of product newness make projects stable and efficient; consequently, the success of firm performance is achieved. As for the business unit, the frequently inbound open innovation practices are necessary for terms of generating efficiency and outcomes, and efficient inter R&D strategies are significant conditioned by the degree of product newness, contributing to the firm performance as well.

Camisón and Villar-López (2014) assessed the relationship between organizational innovation and technological innovation capabilities, and analyzes their effect on firm performance using a resource-based view theoretical framework. The study presented empirical evidence from a survey of 144 Spanish industrial firms and modeling of a system of structural equations using partial least squares. The results confirmed that organizational innovation favors the development of technological innovation capabilities and that both organizational innovation and technological capabilities for products and processes can lead to superior firm performance.

In Sweden, Löfsten (2014) did a study on product innovation processes and the trade-off between product innovation performance and business performance. The study leveraged a data set of 99 medium-sized technology firms. The results showed that product innovation performance (patent) was affected by seven variables of the 14 variables that represented product innovation processes. Product innovation performance was not affected by firm size, firm age, branch and product life cycles and, in the regression model, all three innovation performance variables (patents, copyrights and licenses) had a positive effect on the firm's sales, but there were no connections to the firm's profitability.

Tuan et al. (2016) explored two parts: the impacts of innovation on the different aspect of innovation performance, then their effects to firm performance (production, market, and financial performance). The study used primary data from questionnaire survey. Analysis methodologies of reliability, factor analysis and regression were utilized. The result demonstrated there were positive effects of process, marketing, and organizational innovations on firm performance in supporting firms. More specifically, the higher the level of innovation activities is, the greater the

innovative performance is, which meant the larger level of Process, organization and marketing innovation activities are, the higher level of innovative performance are likely to be. Secondly, the higher level of Process, organization and marketing innovative performance, the better level of firm performances is likely to be. To sum up, in order to improve the innovative and firm performance, those firms in supporting industry should highly concentrate on process, marketing, and organizational innovation activities, rather than product innovation activities.

In China, Xie et al. (2017) sought to identify the factors determining collaborative innovation effect of manufacturing firms in emerging economies. Based on a survey of 1,206 Chinese manufacturing firms and using structural equation modelling, this study explores the factors determining the effect of collaborative innovation among manufacturing firms (namely, internal capabilities, government policies, collaboration mechanisms and social networks) and examines the relationship between collaborative innovation effect and innovation performance. The study found that there are significantly positive relationships between firms' internal capabilities, government policies, collaboration mechanisms and social networks and collaborative innovation effect among firms.

2.2.4 Business Strategies, Government Policies, Innovation Processes and Performance of Manufacturing Firms in Kenya

It is suggested that the value of government policies is to support financial performance of manufacturing sector because the innovation and business strategies are at the firm level. The author argues that government support, such as export promotion, human resource training and technology programmes have insignificant linkages with firm financial performance, but financial supports play an important role, suggesting that supporting measures as tax exemptions, soft loans and investment incentives promote financial efficiency and are vital for the development of private firms. Accordingly, it is judicious to state that government policies only moderate the capability of firms to exploit their internal processes, that is, business strategies and innovative processes, as a basis of enhancing their performance (Wilson, DiIulio, Bose & Levendusky, 2018).

It is recognized that regulation can stimulate innovation and entrepreneurship in society. On the other hand, it can have negative effects. Given that the content and structure of regulation is different for every sector and type of innovative activity, it is difficult to draw general conclusions. The existing literature shows that there is need for much more specific case studies on the impact of regulation on innovation. Both 'innovation' and 'regulation' are broad terms for what are in fact numerous complex and diverse activities. This is the case for public and private activities. There has not been done research yet in the Netherlands on how competition rules can have an impact on innovation activities, focusing on the manufacturing sector (Chen & Chen, 2018).

Norton (2005) suggests the importance of leveraging business strategies, such as technology, to enhance their performance. The author proposes that innovative processes can be leveraged by using technology (technological innovation) to realize competitive advantage. In fact, documented evidence indicate that a combination of business strategies and innovation within the moderating confines of government policies influences the performance of firms. Government policies that support technological transfers to their firms through market liberalization enable those firms to use their resource and dynamic capabilities as a basis of enhancing their performance. Evidently, the interrelationships among the four variables of the study have high internal validity, that is, the predictor variable (business strategies) is strongly moderated and mediated by government policies and innovation processes respectively to influence the outcome variable (performance of manufacturing firms).

Government policy, positions and guidelines of government, schemes and incentives support systems for the private sector, particularly for the manufacturing firms. Many recommendations have emerged from the studies and deliberate efforts are still needed on the part of governments, through its series of efficient policies affecting competition in the market to nurture a climate that is conducive to successful and profitable operations of manufacturing firms. These recommendations include the call government to take concrete actions to curb dumping, smuggling and importation of cheap foreign products; reducing corruption practices; providing social justice; providing market information; improvements in infrastructure; providing training for manufacturing firms and encouraging private investment. There are various factors influencing the firm performance and most of them are complex and erratic. For example,

government can behave an entrepreneurial role to impact the creation of a sustainable market factors. It also can act an entrepreneurial role to impact the creation of a land infrastructure conditions to support organizations (Graafland & Bovenberg, 2019).

The results of previous studies indicate that economies in transition need to take some specific measures to establish the conditions to promotion of entrepreneurial activities and for businesses to create opportunities to grow in different sectors of the economy. The results of studies also indicate that in the absence of sturdy market forces in these countries transitional economy, the government must play a decisive role to create those conditions. In addition, the previous studies underlined that government policies have an impact on business activities, linkages and networking in order to cooperation and utilizing resources. Theoretical and empirical studies have shown government policy that seems to be more consistent in influencing the financial performance of the businesses. In developed and developing countries, government policies that provide support are a critical factor for firm performance (Nguyen et al., 2009).

Michailova et al. (2013) studied institutional environment, innovation capacity and firm performance in Russia. The study used structural equation modelling and data from a large-scale firm level survey (n=787) of firms in Russia undertaken by the World Bank in 2009. It investigated the direct and indirect perceptions of respondents of the effects the current institutional environment had on the innovation capacity and performance of their respective organizations. The results showed that regulatory quality, rule of law and corruption had strong direct and negative impacts on both the innovation capacity and performance of firms, and that innovation capacity strongly mediated the effects of institutions on firm performance. The results suggested that the current state of the regulatory quality, rule of law and corruption in Russia inhibit firm innovation and their resulting performance.

The nature and scope of government policies have a direct impact on a company's performance. The supports of government policies for firms vary from country to country and from developed countries to developing countries due to differences in culture, the level of industrialization and business contexts. Country governments create the rules and frameworks in which businesses are able to compete against each other. From time to time the government will change these rules and frameworks forcing businesses to change the way they operate (Kens, 2016). Performance of

manufacturing firms is thus keenly affected by government policies. Governments of the day regularly changes laws in line with its political policies. As a result firms continually have to respond to changes in the legal framework. These policies can have a major impact on the competitiveness and profitability of firms.

2.2.5 Measuring Firm Performance

Miller (2016) suggested that performance measurement pegs on various purposes and, therefore, measurement of performance by different industries apply dissimilar indicators of performance pegging on the objectives, strategies, and environment where the firm operates. Simply put, it is difficult to measure organizational performance using one indicator for many businesses because of the different organizational strategies and objectives. Further, financial assessment systems hinge on short term or annual performance in relation to the accounting yardsticks. Some of the scholars who have carried research and applied financial measures include but not limited to Mwaura (2010) used Return on Assets (ROA), Return of Capital employed, and Return on Investment (ROI). On the other hand, Marangu (2007) applied shareholders total assets and equities, Return on Assets (ROA), profit inter alia while Wanjau (2007) applied Return on Assets (ROA).

Miller (2016) suggested that performance measurement pegs on various purposes and, therefore, measurement of performance by different industries apply dissimilar indicators of performance pegging on the objectives, strategies, and environment where the firm operates. Simply put, it is difficult to measure organizational performance using one indicator for many businesses because of the different organizational strategies and objectives. Miller (2016) opined that the ideal measurement of organizational performance involves juxtaposition of actual results against expected results, assessing individual performances, examining nonconformities from plans, and investigating the extent of the progress geared towards meeting of the set objectives and goals.

Parmenter (2015) contended that organizations should strive to assess their strategy as a means to ensuring that they are doing well, and this encompasses three activities, which include investigating the underlying bases of an organization's strategy, undertaking activities geared towards ensuring performance is in tandem with plans, and finally juxtaposing actual outcome with expected results. Businesses use quantitative criteria such as financial ratios as evaluation

strategy, whereby they juxtapose a company's performance over different times, industry averages and a firm's performance, and company performance to competitors. Measurement of firm performance uses ratios such as profit margin, earnings per share, return on investment, growth of assets, return on equity, growth of sales and debt to equity.

Parmenter (2015) argued that a balanced score card offers an important measurement on internal results and performance. Moreover, a balanced score card incorporates measures that are quantitative and qualitative and at the same time, appreciates the expectations of various entities such as stakeholders because of the linkage between selection of strategy and evaluation of performance. Moreover, a balanced score card is a strategic management and planning framework, which is widely applied by governments and businesses across the world and enables the said entities to align their day-to-day operations with their strategy and vision to an extent that both governments and private sector are in a position to enhance the profitability of their endeavors through stringent internal communication and monitoring of strategies.

Organizational performance can be judged by many different constituencies, resulting in many different interpretations of "successful performance". Each of these perspectives of organizational performance can be argued to be unique. Further, each organization has a unique set of circumstances, making performance measurement inherently situational (Cameron & Whetton, 1983). Both of these issues are problematic for researchers, since theory building involves making and testing assertions that explain or predict a particular phenomenon (generally represented as a value of a dependent variable in a model) that holds true across a broad range of specific instances. While it is possible to develop a multi-attribute model of organizational performance, building a model that addresses multiple constituencies becomes problematic, since each group may have contradictory objectives. Therefore, a unified perspective of overall organizational performance is necessary to execute this research. Accordingly, this dissertation examines organizational performance from a single constituency perspective, that of the common stockholder of for-profit organizations. From this perspective, successful organizational performance can be equated to successful value creation for common stockholders.

Performance is a contextual concept associated with the phenomenon being studied (Hofer, 1983). In the context of organizational financial performance, performance is a measure of the change of the financial state of an organization, or the financial outcomes that results from management decisions and the execution of those decisions by members of the organization. Since the perception of these outcomes is contextual, the measures used to represent performance are selected based upon the circumstances of the organization being observed. The measures selected represent the outcomes achieved, either good or bad.

Most management research focuses on the determinants of performance. For instance, Kunkel (1991) proposed that new venture performance was a function of new venture strategy and industry structure (expressed as a formula as P=*f*(VS,IS)). Kunkel tested the relationship between two independent variables and the dependent construct of new venture performance. The focus of Kunkel's research was on the hypothesized relationship between certain independent variables and certain dependent variables, while the focus of this dissertation is just on the "P". The independent variables are proposed as determinants of the changes in the dependent variables. The changes in the dependent measures are considered to represent "performance" caused by the variations in the independent measures. The critical point here is that performance as a concept involves measurement of the effects of organizational actions.

In general, the concept of organizational performance is based upon the idea that an organization is the voluntary association of productive assets, including human, physical, and capital resources, for the purpose of achieving a shared purpose (Barney, 2001). Those providing the assets will only commit them to the organization so long as they are satisfied with the value they receive in exchange, relative to alternative uses of the assets. As a consequence, the essence of performance is the creation of value. So long as the value created by the use of the contributed assets is equal to or greater than the value expected by those contributing the assets, the assets will continue to be made available to the organization and the organization will continue to exist. Therefore, value creation, as defined by the resource provider, is the essential overall performance criteria for any organization. How that value is created is the essence of most empirical research in management. Conversely, how that value is measured is the essence of this research.

There are several issues associated with the assessment of value creation for organizations. First, value creation is situational since different types of organizations have different concepts of what outcomes are valuable. Second, organizations perform on multiple dimensions, such as growth, profitability, and legitimacy, often trading positive outcomes in one dimension for worse outcomes in another. Third, performance is in part perceptually based upon what the observer finds "valuable". Finally, timing plays a role in value creation as opportunities created in the present, which will be realized in the future, are valued in the present based upon individual assumptions about future actions and conditions. These assumptions about future outcomes vary based upon the perceptions of the observer. If performance is to be measured in terms of value created, it is incumbent upon researchers to select samples of organizations that have homogeneous concepts of value. Value may be tangible or intangible, operational or financial. Public companies (those traded on a recognized stock exchange) seek creation of shareholder value (increases in market value plus dividends paid) as their ultimate objective. For private companies, value creation may be a combination of both financial and non-financial objectives.

When material owners are also the managers of an organization, value creation for shareholders is more likely to include non-financial outcomes (Jensen & Meckling, 1976). These types of costs in public companies might be characterized as agency costs, but when the owners are also the managers, they are actually a component of return to shareholders. Non-financial returns to owner-managers would include lifestyle benefits including work location, work duration, social interactions (such as when an owner continues to operate an under-performing business just so they will have a place to go and feel useful everyday), and ego. Other non-financial returns can be classified as constituency benefits, such as providing income for friends and family, helping people with special needs such as Goodwill Industries, and providing employment for a depressed community. This discussion should not imply that public companies do not have non-financial objectives. They certainly do have agency costs, but they are not a specific objective of the organization. Rather, they are a cost of doing business. Therefore, they should not be considered as a positive part of organizational performance. After six years of examining the concept of organizational effectiveness, Cameron (1986) concluded that there is no conceptualization of organizational effectiveness that is comprehensive. Therefore, similar to Hofer (1983), Cameron concluded that performance is a problem-driven construct, rather than a theory-driven construct.

Even with a homogeneous sample with respect to the concept of value (such as publicly owned companies, family-owned businesses, or not-for-profit organizations), performance is a multi-dimensional construct, which permits value to be created on differing dimensions. It is also possible to conceive of multiple measures of the value created. This fact is supported by the number of different dependent measures that have been used to measure organizational performance in research studies (Murphy et al., 1996).

There are many dimensions to performance and positive performance in one dimension may simultaneously result in negative performance in another dimension. For instance, if resource accumulation and profitability are hypothesized as separate dimensions of performance in the same model, adding resources in the form of equity may result in a lower risk adjusted return on investment. This means that the company has performed well on one dimension, resource accumulation, while it has earned lower performance on the second construct, profitability. A new venture may be effective if it is accumulating resources and building market share, even at the expense of profitability. Conversely, a mature organization may be effective with stable resources and market share, and increasing productivity and profitability. Examining each dimension separately, without consideration of the other dimension will lead to decidedly different conclusions than examining the counterbalancing effects of the two dimensions simultaneously. To equate these levels of performance, a measure that co-varies with each dimension is needed.

Value is in the eye of the beholder. Each organizational stakeholder will have a different perspective of what is "valuable" based upon their purpose for associating with the organization. Passive investors have different perspectives of value creation than do active investors. Creditors may perceive value to be created by the organization's ability to generate positive cash flow and preserve the worth of collateral. Conversely, equity investors may perceive value in expending company resources to create future opportunities, even if it diminishes cash flow and tangible company assets in the short term.

Despite the importance of accurately measuring organizational performance in most areas of academic research, there have been very few studies that have directly addressed the question of how overall organizational performance is or should be measured. Perhaps more importantly,

none of these studies seem to have significantly influenced how overall organizational performance is actually measured in most of the empirical research that uses this construct as a dependent measure. In total, seven empirical studies on the measurement of organizational performance were identified. They include Dess and Robinson (1984), Rawley and Lipson (1985), Chakravarthy (1986), Venkatraman and Ramanujam (1987), Brush and VenderWerf (1992), Robinson, (1995), and Murphy, Trailer, and Hill (1996). The following discussion summarizes and analyzes these studies.

Dess and Robinson (1984) examined the usefulness of subjective performance measures as compared to objective measures. Specifically, they investigated the relationship between objective and subjective measures of return on assets (ROA), growth in sales, and "global" performance measures. The study involved three phases of data collection from 26 manufacturing organizations using onsite interviews of CEOs, mail surveys of the top management teams, and a mail survey of CEOs. Conclusions were drawn from examining the zero order correlations between the six variables of interest.

Dess and Robinson found that top management's subjective evaluation of performance was highly correlated with objective measures, suggesting that researchers may consider using subjective perceptual measures of ROA and sales growth under certain conditions. These conditions include when objective measures are not available and when the alternative is to remove the consideration of performance from the research design. Another finding reported in the study was that there is some evidence that the global measures of organizational performance overlap with subjective and objective measures of ROA and sales growth. However, the amount of unshared variance between the constructs implies that the global measures may capture some broader conceptualization of performance. In other words, there are more dimensions to overall organizational performance then ROA and sales growth.

In 1985, Rawley and Lipson examined the relationships among several combinations of performance measures to demonstrate that different common measures of financial performance did not represent the same attributes. Of these comparisons, the only overall performance measures that they found to be related to each other at statistically significant levels were the Q ratio versus cash flow return on investment ("CFROI") adjusted for the Capital Asset Pricing

Model ("CAPM") discount rate, and market-to-book value versus return on investment adjusted for inflation. The Q ratio was proposed by Callard & Kleinman (1985) as a substitute for Tobin's Q, and is calculated as the ratio of the value of individual business units divided by the inflation adjusted purchase cost of assets. The other measures that they compared were clearly discriminant and do not measure the same construct.

Chakravarthy (1986) empirically compared seven exemplar firms with seven "maladapted" firms in the computer industry, as determined by corporate reputation. The criteria for selecting the samples were the criteria proposed by Peters (2008) for "excellent" firms. Chakravarthy hypothesized that the means of the two groups, excellent and non-excellent firms, would differ along common measures of performance. Accordingly, those measures of performance that demonstrated that the means of the two groups were statistically significantly different would be the best measures of performance for use in strategic management research.

The two groups were first compared for return on sales, return on total capital, and return on book equity. The results, using Turkey's standardized range test, did not demonstrate a statistically significant difference between the two groups. Chakravarthy concluded that profitability criteria are not capable of "distinguishing differences in the strategic performances of the computer firms in the sample" (1996: 442).

Next, Chakravarthy compared the two groups of firms for differences in market to book value and industry adjusted market to book value ratios. Again it was found that these performance measures were not capable of distinguishing between excellent and non-excellent firms in the sample from the computer industry. In examining alternative measures of strategic performance, Chakravarthy compared the two groups of firms using Altman's Z scores. His findings indicate that the Z score was more successful at discriminating the two groups. However, the linear discriminant function that produces the Z score is empirically, rather than theoretically, based and only focuses upon a firm's ability to avoid bankruptcy. Chakravarthy concluded that while a good Z score may be indicative of good short-term performance and a necessary condition for excellence, it does not sufficiently consider the long-term prosperity of a firm. Therefore, a good Z score may be a necessary, but not a sufficient, condition for a firm to be excellent.

The importance of this research was that no single profitability measure was capable of discriminating between the two groups of computer firms. This applied to both the accounting measures used and the market-based measure. As strategic performance deals with the future, Chakravarthy proposes that a firm needs slack resources to ensure its flexibility. Accordingly, in assessing strategic performance, the ability of a firm to produce slack resources is critical. The discriminant function developed includes multiple dimensions of performance, once again indicating the importance of multivariate measures of overall organizational performance.

Venkatraman and Ramanujam (1987) empirically examined the degree of convergence across methods of measuring business economic performance and in so doing, demonstrated that sales growth, profit growth, and profitability were discriminate measures of different dimensions of business economic performance. The purpose of this study was not to empirically derive the best measures of business economic performance in the context of the variables selected by researchers, but rather to test the convergence of methods used to obtain data on business economic performance. Specifically, they compared two different modes of assessment, objective and perceptual, with two different sources of data, primary and secondary, using two different methods, Multi-Trait, Multi-Method ("MTMM") and Confirmatory Factor Analysis ("CFA"). The first finding of the study suggests that perceptual assessments of business economic performance by managers are strongly correlated with secondary data and consequently, can be used as acceptable operationalization of business economic performance. The second finding suggests that although both the MTMM and the CFA approaches provided support for the hypothesis of convergent validity between the measures, the CFA approach was more definitive and provided better explanation. The implication is that CFA is a superior methodology for testing the convergent validity measures of a construct.

Although it was not the primary aim of the study, Venkatraman and Ramanujam demonstrated that sales growth, profit growth, and profitability were discriminate measures of different dimensions of business economic performance. They selected these measures based upon a review of the different performance dimensions typically used by different disciplines done by Hofer (1983) and Woo and Willard's (1983) findings of key dimensions of performance based upon an analysis of PIMS data.

The results of this research suggest that CFA is a superior method to MTMM for testing the constructs for discriminant validity (that the performance constructs tested do not measure the same phenomenon). The sample for the study included primary and secondary data from 86 publicly traded companies. Sales growth was represented by the percentage change in sales for each company in the sample over a single year, adjusted for the industry average based upon the firm's primary SIC code. Profit growth was operationalized as the percentage change in net income over one year adjusted for the industry average. The profitability construct was represented by return on investment for one year adjusted for the industry average. The CFA indicated that the correlations between the three constructs were statistically significantly lower than unity. Accordingly, one finding of the research was that sales growth, profit growth, and profitability were distinct constructs, implying that they did not measure the same performance phenomenon. The implication of this finding is that in isolation, none of the three variables individually measure the business economic performance construct. Consequently, the findings from a study that uses sales growth to represent business economic performance should not be equated to findings from a study that uses either profit growth or profitability to represent business economic performance.

Brush and VanderWerf (1992) examined thirty-four different studies in the entrepreneurship literature that explicitly used firm performance as the dependent variable. They found that thirty-five different measures of performance were used in those studies indicating that researchers perceived many different dimensions of performance, and that there was no agreement on what measures actually represent overall organizational performance. The most frequently used measures of performance were changes in sales, organizational survival, changes in number of employees, and profitability. Multiple objective measures were much more frequently employed than were subjective or perceptual measures of performance. Further, the primary means of data collection was mail surveys, and the primary sources of performance information were managers, executives, founders or owners.

Based upon the findings of their literature review, Brush and VanderWerf (1992) examined methods and sources for obtaining estimates of new venture performance. The research questions examined were: To what degree does performance information gathered by different methods of

data collection produce different results? To what degree is there variation, if any, of performance information across different sources? (1992: 160).

Using a sample of 66 manufacturing new ventures located in Massachusetts, Brush and VanderWerf found that venture owner/managers preferred to provide information via a short phone interview rather than completing a mail survey. They found high correlations between the data provided by both sources. With respect to the second research question, where summary information is acceptable to the researcher, archival information was useful. Performance data provided by management proved to be reliable by comparison to archival information and had the added benefit of being more detailed. In other words, Brush and VanderWerf suggest that primary information collected from management is preferable to secondary data sources when depth and context are important to the purposes of a study. However, if such depth and context are not critical to the research, archival information is sufficiently reliable on a summary basis.

Finally, Brush and VanderWerf conclude by stating that they did not attempt to sort out the problem of which performance measures to use. They note that the fact that 35 different performance measures were used in just 34 studies indicates that more work needs to be done to identify measures that make sense for use across studies.

Robinson (1995) examined ten different new venture performance measures to determine which individual measure was the most effective in accurately assessing long-term economic value creation. Each of the performance measures were calculated for the three-year period following the firms' initial public offerings. A sample of 199 new ventures that had issued an initial public offering prospectus between 1980 and 1987 were used as the basis of the analysis. The ten measures studied were (1) change in sales, (2) sales level, (3) return on sales ("ROS"), (4) return on invested capital ("ROIC"), (5) return on equity ("ROE"), (6) return on assets ("ROA"), (7) net profit, (8) earnings before interest and taxes ("EBIT"), (9) earnings multiples, and (10) shareholder value created. Robinson found strong support for his hypothesis that return to stockholders provided the most power of the ten measures evaluated in corroborating previously established relationships between the influence of new venture strategy and the joint influence of new venture and industry structure on the economic performance of new ventures.

Robinson went on to examine the extent to which differing measures may be reasonably utilized as interchangeable proxies for one another. Specifically, Robinson tested six hypotheses using both parametric and nonparametric methods. 1) There will be strong positive relationships between the sales (level), and net income, ROS, ROA, ROIC, and ROE. 2) There will be strong positive relationships among net income, ROS, ROA, ROIC, and ROE. 3) There will be weak positive relationships between shareholder value created and both sales and sales changes. 4) Shareholder value created will have a positive relationship with accounting based profitability measures. a. Shareholder value created will have a strong positive relationship with net income. b. There will be moderately strong positive relationships between shareholder value created and ROS, ROA, ROIC, and ROE. (1995: 411-413). Both parametric and nonparametric tests of these hypotheses were done because the assumptions of normality, equality of variances, and linear relationships among dependent variables were significantly violated. While Robinson found that the parametric tests of location were not robust with respect to these violations of data assumptions, he still performed them on his samples because parametric tests are almost exclusively used in new venture performance research. Robinson reported both parametric and nonparametric sets of results in his findings.

The first hypothesis was found to have strong support with the strength of the nonparametric Spearman Rank correlations ranging from .59 to .64 at a 0.001 level of significance. These results differed significantly from the parametric Pearson product-moment correlations that only found sales level to be strongly correlated with net income with a correlation coefficient of .75 at a 0.001 level of significance. The correlations between the sales level and the profitability ratios ranged from .05 to .20 and were not significant. The nonparametric results corroborate findings of Buzzell and Galee (1987). However, they are in direct conflict with the parametric findings of Murphy et al. (1993, 1996). The second hypothesis was found to have strong support with the strength of the nonparametric Spearman Rank correlations ranging from .79 to .94 at a 0.001 level of significance. These results significantly differed from the parametric Pearson product-moment correlations that only found ROIC to be strongly correlated with ROE with a correlation coefficient of .94 at a 0.001 level of significance. The remaining nine correlations were not found to be statistically significant with correlation coefficients ranging from .04 to .32. These nonparametric findings are once again in direct conflict with the parametric findings of Murphy et al. (1993, 1996).

The third hypothesis was not found to be supported as the nonparametric Spearman Rank correlation coefficient between shareholder value created and sales level was .32 at a .001 level of significance. The nonparametric Spearman Rank correlation coefficient between shareholder value created and sales change was .51 and was also at a .001 level of significance. These results indicate that there is a positive and statistically significant relationship between sales as an absolute measure and the change in sales with shareholder value created. However, the parametric Pearson product-moment correlations were -.04 and -.01 respectively, at a .10 level of statistical significance. The contradictory findings were explained by Robinson as being due to the violations of the parametric test assumptions and the test of association not being robust with respect to these violations.

Both parts of the fourth hypothesis concerning a positive relationship between accounting based profitability measures and shareholder value created were strongly supported. The nonparametric Spearman Rank correlation coefficients ranged from .45 to .51 and were significant at the .001 level. Robinson noted that these results corroborated the prior findings of Ball and Brown (1968) and Lev and Ohlson (1982). The parametric tests of association did not find any statistically significant relationships at the .10 level. The parametric Pearson product moment correlation coefficients ranged from -.01 to .04.

In summary, all ten performance measures were tested individually for their relationship with multiple independent variables that had been found in prior literature to have positive relationships to new venture performance. The shareholder value created measure was determined to be the most effective measure for effectively differentiating among new venture strategies, the second most effective measure for differentiating among the structure of the new venture's entered industry, and the most effective measure in differentiating among the interactions between new venture strategies and the structure of the industry the new venture entered. The fact that the different performance measures of overall new venture performance resulted in significantly different r-squares implies that the variables do not measure the same things. Since the variables do not measure the same things, yet all are valid dimensions of performance, it holds that performance is a multi-dimensional construct. Further, Robinson found that the parametric tests of association were not robust with respect to violations or critical

assumptions underlying them. Accordingly, nonparametric tests of association were deemed to be more appropriate for investigating new venture performance.

Murphy, Trailer and Hill (1996) examined the variables used to measure organizational performance in entrepreneurship research in the years 1987 through 1993. They identified 51 articles published in Academy of Management Journal, American Journal of Small Business, Entrepreneurship Theory & Practice, Journal of Business Venturing, and Strategic Management Journal that explicitly used firm performance as a dependent variable. They found, consistent with Brush & VanderWerf (1992) and Cooper (1993), that there was no consistency in the variables used to measure new venture performance. In total, they identified 71 different dependent variables used to measure performance in their sample. They subsequently categorized these variables into eight separate dimensions of performance. They also found that 75% of the sample articles used primary data sources, 29% used secondary data sources, and only 6% used both. The high dependence upon primary data sources is typical in Entrepreneurship research, since there are generally no publicly available financial data sources for non-public companies. Another finding was that the performance variables used were primarily financial rather than operational.

Murphy et al., (1996) presented a table of 71 variables summarized by performance dimension. It should be noted that some might dispute some of Murphy et al.'s classifications. For instance, asset, inventory, and receivables turnover are generally considered efficiency measures, whereas return on investment, return on equity, return on assets, return on net worth (generally considered the same as return on equity), and internal rate of return are all considered profitability measures, even though Murphy et al. classified them as efficiency measures. Similarly, measures such as return to shareholders, market-to-book value, and stock price appreciation are all considered market measures (Brealey, Myers & Marcus, 2001) even though Murphy et al. classified them as profit measures. Therefore, while the actual measures and dimensions presented by Murphy et al. are meaningful, their classifications are suspect and may explain why their results of their factor analysis did not conform to the hypothesized dimensions. Based on these classifications, Murphy et al. then examined 19 financial variables from a sample of 995 public firms with 500 or fewer employees. They found that less than half of the inter-correlations between performance measures were significant, indicating that these variables measured different dimensions of

performance. More than 25% of the significant correlations of performance measures were negative. Murphy, et al. concluded that the "…relationship between a given independent variable and performance is likely to depend upon the particular performance measure used." They further concluded "…research finding support for an effect on one performance variable cannot justify the assumption that the effect is similar across other measures of performance (1996: 21)." Their study also found that the performance measures tested failed to meet the requirements of convergent and discriminant validity necessary to validate a one-dimensional performance construct (Campbell & Fiske, 1959).

Murphy et al. (2015) performed an exploratory factor analysis on the 19 variables, which yielded 9 factors that explained over 70% of the variance in the performance measures. Table 2.3 variables that comprise each of the nine factors identified.

2.3 Conceptual Framework

The schematic diagram below will enable the reader to have a snap shot of the key variables and shows their interrelationship. The independent variables are for the business strategies are, innovation, information communication technology, customer focus and competitive strategies, vis-a-vis how the influence organizational performance. The dependent variable on organization performance was measured using, financial performance, internal process performance, customer satisfaction, and improvement of quality and products. The conceptual framework is as illustrated in Fig. 2.1.

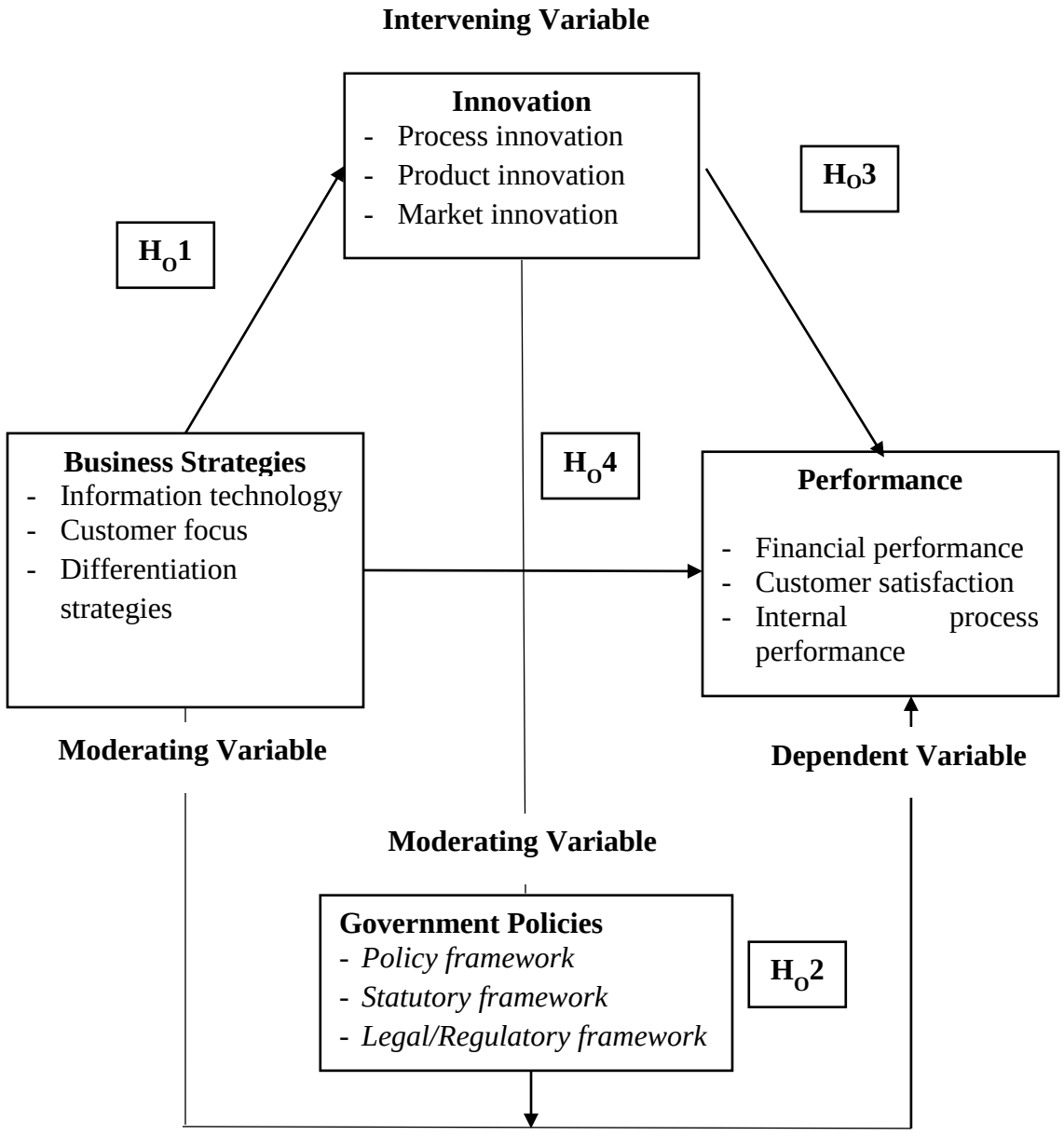


Figure 2.1: Conceptual Framework

2.4 Critical Review

Shaukat et al. (2013) explored the effects of innovation types including product, process, marketing and organizational innovation on different aspects of firm performance such as innovative, production, marketing and financial performance in Pakistani manufacturing companies. Data were collected through survey questionnaires from 150 respondents mainly from production, R&D and marketing departments of manufacturing companies. With the help of SPSS, data were analyzed by factor, reliability, correlation, and regression analysis. The results reveal the positive effects of innovation types on firm performance. Although the study was relevant to the current study, there is need for a similar study in Kenyan contexts.

Lamond et al. (2010) studied the links among regulations, innovation and performance in the UK using sector level data. The study used structural equation modelling to study the links among the three variables simultaneously. The analysis indicates that environmental regulations in the UK are significant in improving economic performance of the industrial sectors. They also find that, in the short run, environmental regulations negatively influence innovation, and innovation negatively influences economic performance in these sectors. However, this study was carried out in UK a developed country the findings may not be the same in Kenya a developing economy in sub-Saharan Africa. The study mainly focused on the industry sector a ignoring other performance measures.

Triebswetter and Wackerbauer (2008) have studied the impact of integrated environmental product innovation on company competitiveness using qualitative analysis of case studies in selected firms in Munich in Germany. The main hypothesis was that government policies can trigger environmental innovation and possibly lead to a win-win potential for firms, i.e. an improvement of the environment and a better competitive position in the market by partially or more than fully offsetting the cost of regulatory compliance ("strong" version of the Porter hypothesis). Their analysis have shown that environmental regulations of waste water, packaging waste and clean air have not resulted in an improvement in the economic performance in the German manufacturing industry but at the same time have not damaged the economic performance. This study covered environmental product innovation and company competitiveness. The study failed to focus on business strategies which is the main focus of the current study.

Faezi (2014) investigate the relationship between criterions of differentiation strategy and cost leadership with government policies in pharmaceutical companies in Iran. The study found that government policies has a significant relationship with differentiation strategy. On the other side result did not show any positive relationship between government policies and cost control. This study was carried out in an environment that is quite different from the Kenya environment its finding may not be the same. The study was carried out in a single unique field pharmaceutical its finding may not be universally applied in all fields of manufacturing.

Herzallah, Gutierrez-Gutierrez and Munoz (2014), examined the relationship between government policies, competitive strategies cost leadership and differentiation and firms performance in the Palestinian economy. The findings indicated that government policies were directly related to financial performance. The study only focused on financial performance and ignored non-financial measures.

Zatzick et al. (2012) explored the fit with the organization orientation relates to performance following government policies in USA. Conceptualizing an organization as a system of interrelated activities; they proposed that government policies acting as an elaborate element that achieves internal fit; when the core activities are oriented towards cost rather than differentiation strategic position. When internal fit occurs government policies drives tighter interactions among core elements in activity systems resulting to greater performance. Their findings show that government policies is positively related to performance for cost leaders and negatively related to performance of differentiators. Their findings support contingency perspective where internal fit serves as an overarching contextual factor influencing performance. This study covered only two generic strategies cost leadership and differentiation study the third business strategy market focus as a strategy was not investigated.

Jusoh and Parnell (2008) sought to contribute to a better understanding of competitive strategy and performance measurement in the Malaysian context by applying a modified version of Conant et al's generic strategy scale and categorizing Malaysian firms along the Miles and Snow business strategy typology. Competitive strategy and performance measurement were assessed via survey. A total of 975 firms were randomly selected from the directory of Federation of Malaysian Manufacturers (FMM) as listed in 2003. Overall, 133 surveys were returned, 120 of

which were usable for analysis. Results suggest that Malaysian firms view competitive strategy differently and are more likely than their Western counterparts to emphasize the use of financial measures of organizational performance. Findings also highlighted the difficulties faced when Western measurement scales were employed in non-Western emerging nations. Although the study was relevant to the current study, it did not address the three strategies that were the central focus in this study.

Cepeda and Arias-Pérez (2019) analyzed the mediating effects of the acquisition and exploitation capabilities of open innovation on the information technology capabilities–organizational agility relationship. Structural equation modeling was used to test the proposed model with survey data from a multinational corporation that operates in South American emerging economies in the pension and savings businesses. This study found that only the open innovation capability of exploitation has a partial mediating effect. This means that this organizational ability serves as a bridge so that IT capabilities can have a positive incidence on organizational agility.

2.5 Summary of Knowledge Gaps

The theory of business strategy provides essential insights on strategic approaches that organizations can undertake as a basis enhancing performance; however, the theory falls short of describing how firms can design innovative processes within the moderating influence of government policies. Empirical research on the best business practices and choices that firms could leverage on and the subsequent firm's competitive advantage are limited. Few attempts have led to inconclusive findings that have been attributed to limited literature and lack of business strategies on firms' structures. Documented literature on business strategies adopted by manufacturing firms and their impact on firm's performance and/or competitive advantage remain less researched and less comprehensive. Arising from the findings of the synopsis of business strategies studies in Table 2.1, it is evident that adoption of business practices by manufacturing firms from their operating external environment is limited and in some extent, non-existence. Therefore, in addressing the acknowledged gaps, it is necessary that an empirical study be conducted to determine how firms could leverage information communication technology, competitive strategies, innovation, and competitive strategies to reinforce their performance.

Table 2.1 provides a summary of the conceptual and empirical studies reviewed. Information provided include the methodologies used in the studies, findings and the gaps, which can inform future studies.

Table 2.2: Knowledge Gaps

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
Were (2016)	Opportunities and challenges facing Kenya's industrialization	- Descriptive research design was used A case study approach adopted.	government policies, such as vision 2030 Manufacturing Sector, which states that the role of the manufacturing sector in Vision 2030 is to create employment and wealth	The dependent variable in the study was salience in industrialization, while the current depend variable is performance. In addition, the current study adopts government policies as a moderating variable.	The current study will consider government policies as a moderating variable and adopt performance as a dependent variable
Safari and Yu (2014)	Effect of information and communication technology of Manufacturing Industry in Irania.	- Data were analyzed using a hierarchical regression analysis	The findings of the study pointed out those financial institutions listed at the trading exchange leveraged information communication technology to realize compatible advantage.	The study did not give detail the link between financial institutions and manufacturing firms.	The present study seeks to close the methodological gap by employing a cross-sectional survey design aimed at collecting data from firms registered at KAM.
Oloko and Sakwa (2014)	Effect of customer service practices on Performance of Banks.	- Descriptive research design was used A case study approach adopted.	The findings of the study revealed that commercial banks use TQM as a means of integrating practices of customer service and channels of delivery	The study focused on financial institutions, while the current study hinges on manufacturing firms.	The current study will focus on manufacturing firms, and use various indicators of customer focus to establish its relation with performance.
Jusoh, R., & Parnell, J. A. (2008)	Competitive strategy and performance measurement in the Malaysian context	Used questionnaires	Malaysian firms view competitive strategy differently and are more likely than their Western counterparts to emphasize the use of financial measures of organizational performance. Findings also highlighted the difficulties faced when Western measurement scales	Study was carried out in a developed. There is a need for a similar study with special focus on emerging economies such as Kenya.	The study sought to fill the contextual gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
			were employed in non-Western emerging nations.		
Kiraka, Kobia, & Katwalo (2013)	Micro, small and medium enterprise growth and innovation in Kenya: A case of the women enterprise fund.	- Data were analyzed using a hierarchical regression analysis	The findings of the study suggested that product innovation is achieved by exploiting new ideas.	The author failed to describe how firms can leverage innovation as an internal capability against competitors and market threats	The current study sought to establish the influence of innovation as an intervening variable against performance of manufacturing firms.
Faezi (2014)	Investigated the relationship between standards of differentiation strategy and cost leadership with comprehensive quality management in medic firms	- Descriptive research design was used A case study approach adopted.	government policies has a significant relationship with differentiation strategy, on the other side results did not show any positive relationship between government policies and cost leadership strategy	The study is narrowed to pharmaceutical firms only.	This study covered all manufacturing firms.
Herzallah, Gutierrez-Gutierrez and Munoz, (2014).	Examined the relationship between government policies, competitive strategies and financial performance.	- Descriptive research design was used A case study approach adopted.	The results showed that TQM practice have an indirect, positive and significance relationship with competitive strategies and financial performance	The study does not measure performance using non-financial measures	This study used both financial and non-financial measures.
Parnell, J. A. (2010).	Strategic clarity, business strategy and performance	The survey assessed business strategy and performance and involved managers representing 277 retail businesses	The combination strategy was associated with higher performance in some but not all instances. Strategic clarity – the extent to which a single strategy reflects the organization's strategic intent – was also associated with	Study did not focus on business strategies thus presenting a knowledge gap	Study sought to fill the existing gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
			organizational performance. Businesses with high and low strategic clarity outperformed those with moderate strategic clarity.		
Munisu,(2013)	Tested the effect of government policies on organization competitive advantage and subsequently performance of an organization.	- Data were analyzed using a hierarchical regression analysis .	The findings showed that government policies has a positive and significant effect on both organization performance and competitive advantage	The study is narrowed to the fishing industry in Indonesia. The findings may not be applicable in the Kenyan industry	This study was carried out in the Kenyan manufacturing industry.
Prajogo and Sohal (2016)	Examined the relationship between organization strategy, total quality management and organization performance	- Descriptive research design was used A case study approach adopted.	government policies positively and significantly relate to differentiation strategy and it partially affects the relationship between differentiation strategy and product quality, product innovation, and process innovation.	Performance in the study is measured using product quality, product innovation, and process innovation. Customer satisfaction and financial performance of organizations was not considered.	This study offered a holistic approach to performance measure. Using both financial and non-financial measures. Using customer satisfaction, organization learning and growth, process efficiency and financial performance
Zatzick, Molterno and Fang, (2012).	The study explored how best organization orientation relates to performance following government policies	- Descriptive research design was used A case study approach adopted.	Government policies is positively related to performance for cost leadership strategy but negatively related to the performance of differentiation strategy.	The study does not cover the effect of government policies on market focus strategy.	The study covered all the three generic strategies, cost leadership strategy, market focus strategy and differentiation strategy.
Kisaka and Okibo (2014)	- Effects of generic strategies on the	- Descriptive research design was used	- Market focus and differentiation strategies had a positive correlation	The study focused on higher education institutions thus	This study sought to fill the gaps.

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	expansion of academics programmes for competitive advantage	- A case study approach adopted.	with the expansion of academic programmes - Combining them had an effect on increasing competitive advantage of the university.	presented a contextual gap. The study also presented a methodological gap	
Nandakumar et al. (2010)	- The moderating effects of external environment and organizational structure in the relationship between business-level strategy and organizational performance.	- Descriptive research design was used - A case study approach adopted.	- Environmental dynamism and hostility act as moderators in the relationship between business-level strategy and relative competitive performance. - Low-hostility environments a cost-leadership strategy and in high-hostility environments a differentiation strategy lead to better performance compared with competitors. - Organizational structure moderates the relationship of both the strategic types with ROS.	The study focused on the moderating effect of environment.	This study moderating effect of government policies was sought on the relationship between business strategies and performance by
Birjandi et al. (2014)	- Effect of cost leadership strategy on ROA and future performance.	- Data collected from 45 firms in the Tehran Security Exchange (TSE) during 2009-2013. The statistical technique was used to examine the assumption	- Among firms with cost leadership strategy, there were positive relationships between the ratio of sale to capital expenditure with percent of growth in sales. - There were negative relationships between the ratio of sale to assets and the ratio of staff to assets with ROA and Long-term	The study was narrowed to the TSE. The findings may not be applicable in the Kenyan manufacturing industry thus presented a contextual gap	This study sought to fill the knowledge gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
		of regressions model.	financial performance and Short-term economic performance		
Chang et al. (2015)	- The relationship between strategic positioning of firms and their production efficiency.	- Descriptive research design was used - A case study approach adopted.	- Firms pursuing a cost leadership strategy attributed higher importance to production efficiency, - Firms pursuing differentiation strategy attributed less importance to production efficiency.	- The study presented a knowledge gap. - The study also presented a methodological gap	- Study sought to fill the gaps
Kaliappen and Hilman (2014)	- To investigate the link of cost leadership strategy, process innovation and organizational performance in context of Malaysia hotel industry.	- Online questionnaires were used	- Cost leadership significantly affects the process innovation and process innovation also significantly affects the organizational performance. - Process innovation mediates the cost leadership strategy and organizational performance link.	- The study was done in Malaysia hotel industry thus presenting a contextual gap.	- This study sought to fill the existing gap and focused on manufacturing firm in Kenya.
Atikiya, Mukulu, Kihoro and Waganjo, (2015	- The effect of cost leadership on performance of manufacturing firm in Kenya.	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design.	- Cost leadership and performance were positively correlated	- Study did not focus on market focus and differentiation strategy thus presenting a knowledge gap	- The current study concentrated on market focus and information technology and differentiation strategies thus filling the gap.
Al-alak and Tarabieh (2011)	- The relationship between customer orientation, innovation differentiation,	- A questionnaire and an interview guide were used. - The study adopted descriptive and	- Customer orientation contributes positively to organization performance through innovation differentiation and market	- The study focused on banking industry in Jordan. - The study presented a contextual gap	- The current study filled the existing gap and focused on Kenyan manufacturing industry.

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	and market differentiation and organization performance in the banking industry in Jordan	explanatory research design	differentiation. - The impact of innovation differentiation on organization performance is greater than the impact market differentiation on performance and both innovation differentiation and market differentiation simultaneously achieve greater competitive advantage.		
Shafiwu and Mohammed (2013)	- The effect of product differentiations on profitability in the petroleum industry in Ghana.	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design	- The effect of product differentiations on profitability in the petroleum industry in Ghana.	- The study focused on petroleum industry in Ghana. Thus presented a contextual gap - And methodological gap	- The current study focused on Kenyan manufacturing industry and employed cross sectional approach thus filling the gaps
Atikiya et al. (2015)	- Effect of differentiation on performance of manufacturing firm in Kenya	- A survey questionnaire and an interview guide was used to collect data from 131 firms. - The study adopted descriptive and explanatory research design	- Manufacturing firms in Kenya were positively significantly influenced by differentiation. - Manufacturing firms adopt a differentiation strategy to increase their competitiveness and performance	The study focused on one strategy that constitutes business strategies	The current study focused on manufacturing firms, and in addition to differentiation used market focus and information technology to establish its relation with performance.
Asiedu (2016)	- The use and impact of market segmentation practices on banks performance in	- Both primary and secondary - Exploratory research design was adopted. - Statistical test	- Segmentation practices have immensely impacted on the performance of the selected banks in Colombia. - The study exposed that the banks have used	- The study presented a methodological gap	- The study adopted cross sectional research study and applied Structural Equation Modeling (SEM) filing to the fill the

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	Colombia, post consolidation period of 2012 to date	using Herfindal Hirchman Index (HHI) was designed to test for market concentration against bank's performance.	segmentation practices to lower their overall operation unit cost, expand their market shares, retain their customers, better their communications, increase profitability and focus on their company.		identified gaps.
Onaolapo et al. (2011)	- The impact of marketing segmentation practices on the performance of selected Nigerian commercial banks in the post consolidation era 2005 to date	- Data employed were mainly secondary - The research design was exploratory - Herfindahl Hirschman Index was used	- Banks with high level of market share demonstrate high customer retention ability and lower overall unit operating expenses.	The study was narrowed to the Nigerian commercial banks, presented a contextual gap And methodological gap	This study was carried out in the Kenyan manufacturing industry and adopted cross sectional survey design
Mbithi, Muturi and Rambo (2015)	- The performance implications of using two marketing strategy approaches; developing new market segments and extending geographically in the Kenyan sugar industry	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design	- Developing new segments influenced sales volumes which positively affected firm's profitability	The study presented a methodological gap	The study sought to apply Structural Equation Modeling (SEM) and Cross sectional research design to fill the identified gaps.
Kimani and Wagoki (2015)	- Strategies for gaining competitive advantage in insurance firms	- A questionnaire and an interview guide were used. - The study adopted	- Market focus strategies have a positive effect on the performance of insurance firms in Kenya.	The study presented a methodological gap	This study adopted a cross sectional research design

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	in Kenya with specific focus on generic strategies	descriptive and explanatory research design			
Parnell, J. A., Lester, D. L., Long, Z., & Köseoglu, M. A. (2012).	- How environmental uncertainty affects the link between business strategy and performance in SMEs	- The strategic group level of analysis was employed. Generic strategy, environmental uncertainty, and performance were measured by previously validated scales	- The combination strategy-performance linkage was supported in Turkey and the USA. In China, the highest performing strategic group emphasized a focus orientation accompanied by neither cost leadership nor differentiation, and the lowest performing group was comprised of low cost businesses	The studies were carried out in developed countries. Presenting a contextual gap	There is need for a similar study in Kenya to fill the existing knowledge gap
Atikiya et al. (2015)	The effect of market focus strategy on performance of manufacturing firm in Kenya -	- A survey questionnaire and an interview guide was used to collect data from 131 firms. - The study adopted descriptive and explanatory research design	- Manufacturing firms in Kenya were positively significantly influenced by market focus strategy. - Manufacturing firms adopt a market focus strategy to increase their competitiveness and performance	- The study focused on market focus strategy presenting a knowledge gap	- The study sought to fill the gap by including differentiation, information technology and market focus and had government policy as the moderating variable and innovation process as the mediating variable
Wei et al. (2015)	- Examine the effect of government support in the Chinese context considering a different type of impact: the innovation	- The study adopted an empirical research approach in this study.	- Vertical support in the form of direct research and development (R&D) subsidies and horizontal support in the form of regional innovation policy have a positive impact on the innovation performance of firms.	- Study was carried out in China thus presented a contextual gap. - Study adopted empirical research approach presenting methodological gap	- Study sought to fill the existing contextual and methodological gaps

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	performance of firms.				
Garcia-Tabuenca and Crespo-Espert (2010	To evaluate the effects of support measures on Spanish manufacturing firms' performance. -	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design	- The results suggest that government support for manufacturing firms is relevant at financial and business efficiency levels, mainly in the weakest companies although they do not manage to reduce their costs until they reach relative levels similar to those reached by companies not accessing the guarantee system.	- Study was carried out in Spain thus presented a contextual gap. - Study adopted descriptive and explanatory research design presenting methodological gap	- Study sought to fill the existing contextual and methodological gaps
Zindiye, Chiliya, and Masocha (2012)	- The influence of government and other institutions' support on the performance of firms in the manufacturing sector	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design	- The results indicated that there is a positive relationship despite the prevailing economic conditions	- Study was carried out in France thus presented a contextual gap. - Study adopted descriptive and explanatory research design presenting methodological gap	- Study sought to fill the existing contextual and methodological gaps
Legros and Galia (2012),	- Analyzing the sources of knowledge and their effects on productivity in French manufacturing	- A questionnaire and an interview guide were used. - The study adopted descriptive and explanatory research design	- The market share and firm size have a positive impact on innovation decision and intensity of R&D. - This main result is amplified by existence of competing products and patents.	- The study presented a knowledge and methodological gaps	- This study sought to fill the existing gap
Kowo, Akinbola and Akinrinola	To determine if process innovation	- A questionnaire was used	- Process innovation has a significant effect on	- The study presented a knowledge gap	- This study sought to fill

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
(2018)	has significant effect on organizational performance and also to examine if there is a significant relationship between Process Service Modification and Sales Volume.	- Cronbach Alpha for test retest reliability.	organizational performance. - There exist a significant relationship between service modification and sales volume.		the existing gap
Otero-Neira, Lindman and Fernández (2009	- A study to understand the conditions that make innovation profitable.	- A multi-case comparative research of low-tech, small and medium-sized furniture firms from Italy, Spain and Finland.	- The study showed some evidence that innovation positively influences business performance. - In particular, the results suggest that different performance levels are linked to the type of innovation developed.	- The study presented a knowledge gap	- This study sought to fill the existing gap
Rosli and Sidek (2013)	The impact of various innovation dimensions on the performance of SMEs.	- A total of 284 samples were collected from SMEs in the food and beverage, textiles and clothing and wood-based sub-industries throughout Malaysia. The data were analyzed using a hierarchical regression	- The findings confirmed the hypotheses that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter.	- The study presented a knowledge gap	- This study sought to fill the existing gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
		analysis.			
Varis and Littunen (2010)	- To examine the information sourcing practices of small to medium-sized enterprises (SMEs) associated with the development of different types of innovation (product/process /market/organizational).	- The study was based on a quantitative study	- The introduction of novel product and market innovations appears to be associated with the use of more or less freely accessible information sources. - The introduction of novel product, process and market innovations is positively associated with firms' growth. - None of the types of innovation studied was found to have a positive relationship with firms' profitability.	- The study presented a knowledge gap	- This study sought to fill the existing gap
Ar, I. M., & Baki, B. (2011).	- Antecedents and performance impacts of product versus process innovation.	- Hypotheses were tested using structural equation modeling with data collected from 270 managers of small and medium-sized enterprises (SMEs) located in Turkish science and technology parks (STPs).	- Both product and process innovation have a strong and positive association with FP. While antecedents such as R&D strategy, TMS, CF, CC, and SR have significant impact on product innovation, other antecedents such as OLC and OC have a significant and positive impact on process innovation.	- Study was carried out in Turkey thus presenting a contextual gap	- There was need to fill the contextual gap by focusing on developing nations such as Kenya
Rosli, M. M., & Sidek, S. (2013)	- The Impact of Innovation on the Performance of Small and Medium Manufacturing	- Data were analyzed using a hierarchical regression analysis	- Hypotheses were confirmed that product innovation and process innovation influenced firm performance significantly. -	- Study was carried out in china thus presenting a contextual gap	- There was need to fill the contextual gap by focusing on developing nations such as Kenya

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	Enterprises: Evidence from Malaysia				
Xie, X., Zeng, S., Zang, Z., & Zou, H. (2017)	- Identifying the factors determining cooperative innovation effect in emerging economies	- Used a survey of 1,206 Chinese manufacturing firms - Used structural equation modelling		- Study was carried out in china thus presenting a contextual gap	- There was need to fill the contextual gap by focusing on developing nations such as Kenya
Zhu, J., Wang, Y., & Wang, C. (2019	- A comparative study of the effects of different factors on firm technological innovation performance in different high-tech industries	- The study used a comparative analysis of data about growth enterprises market board (GEM)-listed companies		- Study focused on High-Tech thus presented a contextual gap. - Study used a comparative analysis of data presenting methodological gap	- Study sought to fill the existing contextual and methodological gaps
Phongpetra, V., & Johri, L. M. (2011)	- Impact of business strategies of automobile manufacturers in Thailand	- For empirical analysis, the method of confirmatory factor analysis and the structural modeling method were applied in order to refine business strategies, functional strategies, financial, and marketing organizational scales	- There are three significant business strategies of automobile manufacturers in Thailand which have a positive effect on the organization's financial and marketing performance: cost focus (the first priority), cost leadership (the second priority), and integrated cost and differentiation (the third priority). - All the priorities of functional strategies that have a positive effect on the	- Study focused on automobile manufacturers in Thailand	- There was need to fill the contextual gap by focusing on developing nations such as Kenya

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
			financial and marketing organization performance were subsequently analyzed as follows: manufacturing strategy (most significant), human resource management (the second most significant), marketing strategy (the third most significant), and the financial strategy (the least significant).		
Nandakumar, M. K., Ghobadian, A., & O'Regan, N. (2011	- Generic strategies and performance– evidence from manufacturing firms	- Study focused on manufacturing firms in the UK belonging to the electrical and mechanical engineering sectors. Data were collected through a postal survey using the survey instrument from 124 organizations and the respondents were all at CEO level	- Firms adopting one of the strategies, namely cost-leadership or differentiation, perform better than "stuck-in-the-middle" firms which do not have a dominant strategic orientation. - The integrated strategy group has lower performance compared with cost-leaders and differentiators in terms of financial performance measures.	- Study carried out in developed countries	- Study sought to fill the contextual gap by focusing on Kenyan manufacturing firms.
Cepeda and Arias-Pérez (2019)	- Information technology capabilities and organizational agility	- Structural equation modeling was used to test the proposed model with survey data from a multinational	This study found that only the open innovation capability of exploitation has a partial mediating effect. This means that this organizational ability serves as a bridge so that IT capabilities can have a	- The study presented a conceptual gap - The study was carried out in Southe American emerging markets thus presenting a	- The study sought to fill the contextual and conceptual gaps by including differentiation, information technology and market focus and had government policy

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
		corporation that operates in South American emerging economies in the pension and savings businesses	positive incidence on organizational agility. -	contextual gap -	as the moderating variable
Li, M., Wei, J., McKiernan, P., & Liu, Y. (2015)	- Government support and firm innovation performance	- Adopted an empirical - collected the data of 343 enterprises in China - Negative binomial regression was used to quantitatively examine the relationship between government support and the innovation performance of firms	- Both vertical support in the form of direct research and development (R&D) subsidies and horizontal support in the form of regional innovation policy positively influence the innovation performance of firms. - In addition, direct R&D subsidies are more likely to experience the enhanced benefits of carrying out tax credit policy on the innovation performance of firms.	- The study presented a conceptual gap - The study was carried out in china thus presenting a contextual gap - The study used binomial regression thus presenting a methodological gap	- The study sought to fill the methodological, contextual and conceptual gaps by including differentiation, information technology and market focus and had government policy as the moderating variable
Guthrie, J., Dumay, J., Roos, G., & O'Connor, A. (2015).	- Government policy implications of intellectual capital: an Australian manufacturing case study	- The ICN was one of several methods and themes used by a sample of manufacturing firms during a 12 month period. Data capture were through video filming, observation, and formal	Confirmed the usefulness of the intellectual capital lens in the policy implementation process.	- The study presented a conceptual gap	- The study sought to fill the contextual gap by including differentiation, information technology and market focus and had government policy as the moderating variable

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
		interviewing during and after the interventions			
Lu, C., Yu, B., Zhang, J., & Xu, D. (2020	- Effects of open innovation strategies on innovation performance of SMEs: evidence from China	- Survey data from 236 manufacturing SMEs in China were used to test the proposed model using hierarchical regression analysis	The results showed that both OI breadth and depth are positively related to innovation performance of SMEs. Moreover, this study found that realized absorptive capacity serves as a mediator in the relationships between OI breadth and depth and innovation performance. The potential absorptive capacity and government institutional support moderated the relationship between OI breadth and innovation performance.	- The study presented a conceptual gap	- The study sought to fill the contextual gap by including differentiation, information technology and market focus
Singh, D., Khamba, J. S., & Nanda, T. (2017).	- Influence of technological innovation on performance of small manufacturing companies	- The research was based on an in-depth survey of 135 firms located in India's Northern region. Multiple regression analysis was employed to examine the correlation between TIIs and manufacturing firm performance (MFP) for these firms.	The findings verified that entrepreneurial capability, technology infrastructure capability and government initiatives were the most important TIIs for small firms. The findings were also validated by using statistical-test and canonical correlation analysis.	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
Löfsten, H. (2014).	- Product innovation processes and the trade-off between product innovation performance and business performance	- Regression analysis was used	Product innovation performance (patent) was affected by seven variables of the 14 variables that represented product innovation processes. Product innovation performance was not affected by firm size, firm age, branch and product life cycles and, in the regression model, all three innovation performance variables (patents, copyrights and licenses) had a positive effect on the firm's sales, but there were no connections to the firm's profitability.	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus
Zhang, S., Wang, Z., Zhao, X., & Zhang, M. (2017	- Effects of institutional support on innovation and performance: roles of dysfunctional competition	- The study developed a research model based on institution-based view and tested it using structural equation modeling and empirical data collected from 300 manufacturers in China.	Institutional support positively affected product and process innovation and firm performance. Both product and process innovation improved firm performance. The findings revealed that dysfunctional competition significantly reduced the positive effects of institutional support on product and process innovation but left the effects of institutional support and product and process innovation on firm performance unaffected	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
Camisón, C., & Villar-López, A. (2014)	- Organizational innovation as an enabler of technological innovation capabilities and firm performance	- The study presented empirical evidence from a survey of 144 Spanish industrial firms and modeling of a system of structural equations using partial least squares	The results confirmed that organizational innovation favors the development of technological innovation capabilities and that both organizational innovation and technological capabilities for products and processes can lead to superior firm performance.	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus and focused on developing nation
Rajapathirana, R. J., & Hui, Y. (2018)	- Relationship between innovation capability, innovation type, and firm performance	- The research framework developed in this study was tested on 379 senior managers of insurance companies	The empirical verification of assumption of this model gave evidence to confirm the relationship between innovation capabilities; innovation efforts and firm performance were significant and strong.	The study presented a conceptual gap	The study sought to fill the contextual gap by including differentiation, information technology and market focus
Karabulut, A. T. (2015	- Effects of innovation types on performance of manufacturing firms in Turkey	- Data were collected through survey questionnaires from 150 respondents mainly from production, R&D and marketing departments of manufacturing companies. With the help of SPSS, data were analyzed by factor,	The results reveal the positive effects of innovation types on firm performance.	The study presented a conceptual gap	The study sought to fill the contextual gap by including differentiation, information technology and market focus

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
		reliability, correlation, and regression analysis			
- Tuan, N., Nhan, N., Giang, P., & Ngoc, N. (2016	- The effects of innovation on firm performance of supporting industries in Hanoi, Vietnam	- Analysis methodologies of reliability, factor analysis and regression were utilized.	- The result demonstrated there were positive effects of process, marketing, and organizational innovations on firm performance in supporting firms. More specifically, the higher the level of innovation activities is, the greater the innovative performance is, which meant the larger level of Process, organization and marketing innovation activities are, the higher level of innovative performance are likely to be.	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus
Crema, M., Verbano, C., & Venturini, K. (2014)	- Linking strategy with open innovation and performance in SMEs	- The constructs of the research framework were created and validated using factor analysis; further, structural equation modeling was performed to verify the hypothesis about the studied relations	- Results highlighted that firms, which pursue an innovative strategy were those who invest more on technical skills and core competencies. Companies who chose a strategy of diversification were likely to use, exclusively, managerial practices of open innovation, while firms focused on a strategy of efficiency were inclined	The study presented a conceptual gap	The study sought to fill the contextual gap by including differentiation, information technology and market focus

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
			toward open innovation practices and, to a lesser extent, to the development of core competencies.		
Zahra, S. A., & Covin, J. G. (1993)	- Business strategy, technology policy and firm performance	- Data were collected from 103 manufacturing-based firms representing 28 mature industries	- Results showed that technology policy choices vary widely across firms with different business strategies, and that business strategy affected the strength of the relationship between firm performance and particular technology policies.	- The study presented a conceptual gap -	- The study sought to fill the contextual gap by including differentiation, information technology and market focus
Mohamad, M. R., & Sidek, S. (2013)	- Innovation and firm performance: Evidence from Malaysian small and medium enterprises	- The data were analyzed using a hierarchical regression analysis.	- The findings confirmed the hypotheses that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter.	- The study focused on innovation presenting a conceptual gap - The study presented a methodological gap	- The study sought to fill the contextual gap by including differentiation, information technology and market focus - This study included Structural Equation modeling (SEM) and filled the gap
Chege, S. M., Wang, D., & Suntu, S. L. (2020)	- Impact of information technology innovation on firm performance in Kenya	- A sample of 240 enterprises and structural equation modeling were used in the analysis.	- The findings indicated that technology innovation influences firm performance positively.	- The study focused on information technology presenting a conceptual gap	- The study sought to fill the contextual gap by including differentiation, and market focus
Gu, W., & Surendra, G. (2004)	- The effect of organizational innovation and information	- A sample of 430 enterprises and structural equation modeling were	- The study found that Canadian firms actively engaged in organizational changes in the areas of	- The study focused on innovation presenting a conceptual gap	- The study sought to fill the contextual gap by including differentiation,

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	technology on firm performance	used in the analysis.	production and efficiency practices, human resource management (HRM) practices, and product/service quality-related practices. These practices along with ICT use were found to be related to better firm performance		information technology and market focus
- Bayraktar, C. A., Hancerliogullari, G., Cetinguc, B., & Calisir, F. (2017)	- Competitive strategies, innovation, and firm performance: an empirical study in a developing economy environment	- The study employed structural equation modelling using partial least squares	- Competitive strategies such as cost-leadership and differentiation can lead to innovation, which, in turn, increase firm performance.	- The study focused on innovation presenting a conceptual gap	- The study sought to fill the contextual gap by including differentiation, information technology and market focus
- Liu, X., & Wu, X. (2011).	- Technology embeddedness, innovation differentiation strategies and firm performance: Evidence from Chinese manufacturing firms	- using data from 182 Chinese sample firms in east China	- That relational technology embeddedness and structural technology embeddedness have positive impacts on firm performance, and such influences are mediated by innovation differentiation strategies. The result also showed that the interaction between relational technology embeddedness and structural technology embeddedness has a	- Study was carried out in a developed. There is a need for a similar study with special focus on emerging economies such as Kenya.	- The study sought to fill the contextual gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
			direct impact on firm performance, not being mediated by innovation differentiation strategies.		
- Wang, D. S. (2019)	- Association between technological innovation and firm performance in small and medium-sized enterprises	The study formulated a path model with the variables to investigate the impacts of the two different innovation strategies and their joint effects on firm performance The validity of the proposed model was evaluated using a structural equation modelling approach. Confirmatory factor analysis was used to evaluate the convergent validity of the constructs.	- The study found that positive association between radical innovation and firm performance; it showed that the radical innovation strategies were positively related to firm performance in SMEs. They also found that the relationship between radical innovation and firm performance was moderated by environmental factors. Second, they found that the incremental innovation strategies had a negative impact to firm performance, and the relationship between incremental innovation and firm performance had no moderated by environmental factors.	- Study focused on technological innovation	- The current study focused on manufacturing firms, and in addition to differentiation used market focus and information technology to establish its relation with performance.
- Hajar, I. (2015)	- The effect of business strategy on innovation and firm performance in small industrial	Data used to test the hypotheses of partial least squares (PLS)	- The results showed that partially, business strategy had a positive effect on innovation, business strategy had a positive effect on firm	- The study used partial least squares presenting a methodological gap	- The study sought to fill the existing methodological gap

Researcher(s)	Study	Methodology	Findings	Research Gaps	Addressing the knowledge gaps in the study
	sector		performance, and innovation had a positive effect on firm performance.		
- Michailova, S., McCarthy, D. J., Puffer, S. M., Chadee, D., & Roxas, B. (2013)	- Institutional environment, innovation capacity and firm performance in Russia	The study used structural equation modelling and data from a large-scale firm level survey (*n*=787) of firms in Russia undertaken by the World Bank in 2009	- Regulatory quality, rule of law and corruption had strong direct and negative impacts on both the innovation capacity and performance of firms, and that innovation capacity strongly mediated the effects of institutions on firm performance.	- Study was carried out in a developed. There is a need for a similar study with special focus on emerging economies such as Kenya.	- The study sought to fill the contextual gap
- Wang, X. (2018)	- The effect of inbound open innovation on firm performance in Japanese manufacturing firms: comparative study between research centre and business unit	The model was tested with structural equation modeling, using the empirical data which were collected from 60 research centre projects and 62 business unit projects in 2008.	- Results revealed the causal relationship between the implementation of inbound open innovation and the firm performance in both research centre and business unit. Comparative results showed that regarding research centre, increasing the frequency of inbound open innovation, efficient integral R&D activities and the higher degree of product newness make projects stable and efficient; consequently, the success of firm performance is achieved.	- Study was carried out in a developed. There is a need for a similar study with special focus on emerging economies such as Kenya.	- The study sought to fill the contextual gap

2.6 Operationalization of the Variables

The study variables were operationalized as indicated in the table below in order to facilitate reduction of abstract notions of constructs into observable characteristics that are measurable. This involved definition of constructs or variables so that they could be measured or expressed quantitatively. The study variables were operationalized based on research objectives. The variables under the study included business strategies as the independent variable, firm performance as the dependent variable, innovation processes as a mediating variable and government policies as the moderating variable.

Table 2.3: Operationalization of the Variable

Type of variable	Variable	Dimension	Operationalized Indicators
Independent variable	Business strategies	Information technology	Internal efficiency, Quality service delivery, operational/production cost
		Customer focus	Product and service quality, delivery reliability, meeting of customers' preferences
		Differentiation strategies	Cost differentiation strategy, cost leadership, focus strategy
Moderating variable	Government Policies	Policy framework	Industry standards, rules/regulations and safety guidelines,
		Statutory framework	Tariffs and taxation, Safety standards, quality of products
		Legal/Regulatory framework	Compliance to standards product safety, work environment
Mediating variable	Innovation	Process innovation	Process reliability, operational efficiency, Av cost of production
		Product innovation	Product uniqueness, inimitability, substitutability,
		Market innovation	New markets entered, new customers, customer retention
Dependent variable	Performance	Financial performance	Financial turnover, sales growth, Return on Assets
		Customer satisfaction	Market share, No. of new customers, Product returns rate
		Internal process performance	Productivity, Labor turnover, Working capital/sales, working capacity utilization

2.9 Chapter Summary

The chapter presented literature review in form of theoretical, empirical and conceptual discussions. Theories discussed were theory of business strategy, resource-based view theory, cost differentiation theory, and open innovation theory. The literature review discussed studies on business strategies, government policies, innovation process and performance. These concepts are presented in the conceptual framework in Figure 2.1.

CHAPTER THREE
RESEARCH METHODOLOGY

3.0 Introduction

This chapter presented the methodology of the study, which included the research philosophy, design, target population, the sampling procedure, and sample size, collection of data and analysis, and presentation.

3.1 Research Philosophy

This study used the positivist philosophy. The approach is deemed appropriate as the study seeks facts of associations of social phenomena. It involves objective testing of empirical hypotheses with intentions of accepting or rejecting the null hypotheses. Quantitative techniques involve collection of data, its analysis by statistical methods and generalization of result findings.

3.2 Research Design

This study adopted a cross sectional survey research design, the data were evaluated and examined to establish patterns of interrelationship between variables. Other researchers (Awino, 2007; Machuki & Aosa 2011; Murgor, 2014; Ongeti, 2014) applied similar research design which enabled them to describe similar incidences of phenomenon.

3.3 Study Area

Kenya is a country in Eastern Africa. At 580,367 square kilometres (224,081 sq mi), Kenya is the world's 48th largest country by total area. With a population of more than 47.6 million people, Kenya is the 29th most populous country. Kenya's capital and largest city is Nairobi, while its oldest city and first capital is the coastal city of Mombasa. Kisumu City is the third largest city and also an inland port on Lake Victoria. Other important urban centres include Nakuru and Eldoret. As of 2020, Kenya is the third largest economy in sub-Saharan Africa after Nigeria and South Africa. Although Kenya is a low middle-income country, manufacturing accounts for 14% of the GDP, with industrial activity concentrated around the three largest urban centres of Nairobi, Mombasa, and Kisumu, and is dominated by food-processing industries such as grain milling, beer production, sugarcane crushing, and the fabrication of consumer goods, e.g., vehicles from kits. Kenya also has a cement production industry. Kenya has an oil refinery

that processes imported crude petroleum into petroleum products, mainly for the domestic market.

3.4 Target Population

The target population for this study was 903 firms registered with Kenya Association of Manufacturers (KAM, 2018).

Table 3.1: Target Population

Sector	No. of Firms	Percentage
Building, Mining & Construction	39	4
Chemical & Allied Sector	90	10
Energy, Electrical & Electronics	58	6
Food & Beverages	234	26
Leather & Footwear	9	1
Metal & Allied Sector	96	11
Motor Vehicle & Accessories	59	7
Paper & Board Sector	82	9
Pharmaceutical &Medical Equipment	30	3
Plastic & Rubber	90	10
Fresh Produce	13	1
Textile & Apparels	73	8
Timber, Wood & Furniture	30	3
Total	**903**	**100**

Source: Kenya Association of Manufacturers (2019)

According to the KAM directory of 2018, the manufacturing firms are classified into 13 sectors as outlined in table 3.1, meaning that manufacturing firms have distinct organizational capabilities.

3.5 Sample and Sampling Technique

The study used stratified random sampling owing to the heterogeneity of the units of study and as such, the researcher grouped the target population according to the various manufacturing sectors, where firms with homogenous attributes had an equal opportunity to be sampled. Simply put, the researcher sought to undertake sampling autonomously in each stratum. Therefore, a

sample was drawn from the nine hundred and three (903) manufacturing firms registered under Kenya Association of Manufacturers. The study applied Fischer's formula in determining the number of firms within the manufacturing sectors that were to be included in the research. The sample size was determined using Fischer's et al. formula at 95% confidence interval shown below;

$n=p \times q [z/e]^2$……**(3.1)**

Where:

n= required minimum sample size

p = the proportion belonging to the specified category

q = the proportion not belonging to the specified category

z = the value corresponding to the level of confidence required (90% certain=1.65, 95% certain= 1.96 and 99% certain=2.57)

e% = the margin of error required when the population is less than 10,000 the sample need to be adjusted according to minimum sample size formula as shown below:

n.'= n. / (1+n/N) where

n.' = the adjusted minimum sample size

n. = the minimum sample size (as calculated)

N = the total population

Calculation of the Sample Size

p=50%, q=50%, z=1.96 (95% certain) e= 5% (i.e. within plus or minus 5% of the true percentage, the margin of error that can be tolerated), N=903

$n. = 50x50x [1.96/5]^2$

$= 2500x\ 0.153664$

$= 384$

Since the total target population is less than 10,000 the researcher further applied finite correction formulae (nf) that is used together with the Yamane formulae (1967) in successive steps as indicated:

n.'= 384/ [1+ (384/903)]

= 384/1.425 = 269.4

Approx. = 269

The sample size was distributed among the manufacturing sectors in correspondence to their sizes. This ensured that each sector had a chance of being represented in the study. Table 3.2 shows composition of the calculated sample population.

Table 3.2: Sample Population

Sector	Population	Proportion	Sample Size	%
Building, Mining & Construction	39	(39/903)*269=11.6	**12**	**4**
Chemical & Allied Sector	90	(90/903)* 269=26.8	**27**	**10**
Energy, Electrical & Electronics	58	(58/903)*269=17.3	**17**	**6**
Food & Beverages	234	(234/903)*269=69.7	**70**	**26**
Leather & Footwear	9	(9/903)*269=2.7	**3**	**1**
Metal & Allied Sector	96	(96/903)*269=28.6	**29**	**11**
Motor Vehicle & Accessories	59	(59/903)*269=17.6	**18**	**7**
Paper & Board Sector	82	(82/903)*269=24.4	**24**	**9**
Pharmaceutical &Medical Equipment	30	(30/903)*269=8.9	**9**	**3**
Plastic & Rubber	90	(80/903)*269=26.8	**27**	**10**
Fresh Produce	13	(13/903)*269=3.9	**4**	**1**
Textile & Apparels	73	(73/903)*269=21.7	**22**	**8**
Timber, Wood & Furniture	30	(30/903)*269=8.9	**9**	**3**
Total	**903**		**269**	**100**

From each sector, the researcher stratified and randomly selected firms as per the proportion of the total sample size. Additionally, purposive sampling was applied to select one respondent from the selected firms. The respondent was either the CEO or the general manager.

3.6 Data Collection and Instruments

The study used a structured questionnaire as the primary tool for data collection. The researcher used questionnaires as a data collection tool because questionnaires can reach many respondents in a short period and researchers can allow more time for research participants to fill and respondent to the outlined specific themes. Moreover, questionnaires guarantee confidentiality of the respondents, as they not required indicating their identities unless specified. The respondents were the top management team, which comprised of either CEO or their managers since they were viewed to be more conversant with their respective firms performance in relation to changes in business strategies adopted, government policies and innovation policies..

3.7 Pilot Study

The questionnaire was pilot tested to determine its validity and reliability. Pilot test was conducted in order to determine approximate length of the survey in terms of time, as well as to further refine the instrument. Pilot testing of the instrument provided opportunities for comments relating to the clarity and content of the instrument. Twenty seven questionnaires were piloted by administering them to 27 managers from 27 manufacturing firms that were randomly selected. The pilot test sample of 27 managers represented the required 10% of the targeted final sample size of 296 respondents (Connelly, 2008). The pilot study results did not make part of the actual study.

3.7.1 Reliability Tests

Reliability test was conducted as a test of whether data collecting instrument yielded the same result on repeated trials. A statistical coefficient -Cronbach‘s alpha (α) was used as a measure of internal reliability (Cronbach, 1971). The SPSS for windows reliability program was used to determine the reliability of research instruments. Cronbach‘s alpha reliability coefficient ranges between 0 and 1. Reliability coefficient of 0 implies that there is no internal reliability while 1 indicated perfect internal reliability. The recommended value of 0.7 was used as a cut-off of reliability (Sekaran, 2009). A total of 27 questionnaires were used in the test for reliability of the pilot study instruments. The result shows that all the 27 questionnaires gave Cronbach‘s alpha coefficients of between 0.754 to 0.853.The threshold value of 0.7 was met and thus the pilot study instruments were said to be reliable (See Table 4.2, in section 4.3.2).

Cronbach‘s alpha is a generalization of a coefficient introduced by Kuder and Richardson in 1937 (Mugenda, 2003).

The Kuder-Richardson (KR20) is based on the following formula;

$$KR_{20} = \frac{(K)(S^2 - \sum_s^2 \quad)}{S^2\ (K-1)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \textbf{(3.2)}$$

Where:

KR_{20} is the reliability coefficient of internal consistency

K is the number of items used to measure the concept

S^2 is the Variance of all scores and

$S^2$is the Variance of individual items

3.7.2 Validity Tests

The study used content validity to test the accuracy of data collecting instruments. A judgment procedure of assessing whether a tool is likely to provide contents valid data is to request opinion of expert in a particular field to review it and give suggestions on content improvement (Mugenda, 2003). Opinion of three experts was sought to review data collecting instruments. This helped to improve the questionnaires before proceeding to the field for final data collection in locations in which the pilot survey took place. Results of their responses were analyzed to establish the percentage of representation.

Content validity formular suggested by Amin (2005) was used. This formular is as follows;

Content validity = Number of judges declaring item valid/number of items…… (3.3)

The results indicated that validity test yielded an average index score of 85 percent. This implies that the instruments were valid.

3.8 Data Analysis and Presentation

This involved data preparation, data analysis and reporting of the findings. The quantitative data analysis was aided by Statistical Package for Social Sciences (SPSS, Version 26). Data analysis was done using a combination of four different statistical analysis methods. Firstly, simple descriptive statistical analysis was used to analyze the demographical profile of the respondents and the firms under study. Secondly, Factor Analysis (FA) was used to reduce the size of items in the Likerts scale to manageable size across the variables. Items with factor loading of less than 0.4 were removed.

Thirdly, correlation analysis was used to quantify the relation among the variables. Regression analysis was carried out to test the research hypotheses. The regression analysis involved testing the stated null hypotheses.

The general multiple regression equation was: $FP= \alpha+\beta_1 X_1+ \beta_2X_2+ \beta_3X_3+e$,

$FP= \alpha+\beta_1 X_1+ e$ ..... **Model 1**

$FP= \alpha+ \beta_2X_2+ e$ ..... **Model 2**

$FP= \alpha+ \beta_3X_3+e$ ..... **Model 3**

$FP= \alpha+\beta_1 X_1+ \beta_2X_2+ \beta_3X_3+e$ ..... **Model 4**

Where; FP= Firm Performance; X_1= Business strategies; X_2= Innovation processes, X_3 = Government policies and e = the error term. While β_1, β_2 and β_3 = respective regression coefficients. To establish the moderating effect of government policies, the regression coefficient for the interaction term β_3 was measured, whereby the coefficient was not equal to zero, therefore government policies was significant since the p value was less than 0.05 at 95 percent level of significance (Baron & Kenny, 1986).

Mediation and moderation effects testing followed the procedures described by Baron and Kenny (1986) and MacKinnon, Fairchild & Fritz (2007). A stepwise multiple regression analysis was used to test the extent to which government policies moderates the relationships between business strategies and firm performance. A stepwise multiple regression analysis explores the extent to which one or a combination of the independent variables predicts the changes in the dependent variables while controlling for the preceding variables. A two-step analysis was used to evaluate the overall ability of the model to predict the relationships.

In the first step, the independent variable (business strategies) and government policies were entered into the model as a predictor of the outcome variable (firm performance). According to Baron and Kenny (1986) the independent variables do not have to be statistically significant predictors of dependent variable (firm performance) in order to test for an interaction term. In

step two, an interaction term (the product of business strategies and government policies was calculated. An interaction term presents a joint relationship between the two variables and thus accounts for additional variance in the dependent variable beyond that which was explained by either of the variables (business strategies and government policies). The moderation effect is present if the interaction term explains a statistically significant amount of variance in the dependent variable. The single regression equation was presented as follows:

$FP= \alpha+\beta_2 X_2+ \beta_2 X_2+ \beta_3 X_1*X_2 + e^1$ ..... **Model 5**

Where:

FP is the composite score of Firm performance; X_1 = the composite index of Business strategies; X_2 = the Composite score of government policies; β_1 and β_2 are the coefficients of business strategies and government policies respectively; β_3 represents the regression coefficient for the interaction term while e^1 represents the error term. The regression coefficient for the interaction term β_3 provides an effect of the moderation effect. If β_3 is statistically different from zero, there is a significant moderation on the relationship between business strategies and firm performance.

To examine the mediating effect, Baron and Kenny's (1986) four steps method was used. Several regression analyses conducted and the significance of coefficients examined in each step. In the first step, a single regression analysis with the independent variable (Business strategies) predicting the dependent variable (firm performance) was carried out. In the second step, a single regression analyses with the independent variable (Business strategies) predicting the intervening variable (Innovation process) was carried out. In step 3, a simple regression analysis was carried out with the intervening variable (innovation process) predicting the dependent variable (Firm performance). Lastly a multiple regression analysis with the independent variable (BS) and (Innovation process) predicting the dependent variable firm performance (FP) was carried out.

The reason for steps one to three was to establish if zero-order relationship among the variables existed and if they were statistically significant and then proceed to step four. For example, if business strategies were not significant when innovation process was controlled, then the findings would support partial mediation.

Confirmatory factor analysis (CFA) was used to test the hypothesis that the items used in measuring each objective were associated with specific factors (Zikmund et al., 2010). CFA evaluates a priori hypotheses and is largely driven by theory. CFA analyses require the researcher to hypothesize in advance, the number of factors whether or not these factors are correlated and which items load onto and reflect which factors (Thompson, 2004). CFA was used for evaluation of relationships between observed variables and unobserved variables that accounts for the correlation among observed variables (Zikmund et al., 2010). Hypothesized models were tested against actual data and the analysis used to demonstrate loadings of observed variables on the latent variables (factors) as well as the correlation between the latent variables (Zikmund et al., 2010).

After descriptive statistics for all variables were run, to test the forth hypothesis of the study, data analysis was further conducted using SEM where two phase process consisting of confirmatory measurement model and structural model were used (Bryne, 2006). The first phase involved estimation of the measurement model which assesses the relationship between the observable variables and the theoretical constructs they represent (Bryne, 2006). However prior to CFA, exploratory factor analysis (EFA) that involved computation of factor loading matrix, communality and principle component analysis (PCA) was conducted. To assess the factorability of items, two indicators were examined (Kaiser Meyer-Olkin measure of sampling adequacy and Barletts Test of Sphericity (Pallant, 2010). These tests were generated by SPSS and helped to assess the factorability of data or suitability of data for structure detection (Pallant, 2010). Kaiser-Meyer-Olkin (KMO) test was used to assess sampling adequacy. Bartlett test of sphericity was performed to assess the appropriateness of using factor analysis (Hair et al.,2013).

The confirmatory factor analysis was conducted in order to assess the extent to which the observed data fits the pre-specified theoretically driven model (Hair et al.,2011). CFA was conducted on each construct. CFA was used to shows the extent to which the observed variables (indicators) represented the underlying latent construct (Hair et al.,2010, Hooper et al.,2008).This was done to assess whether proposed variable indicators had significant factor loadings.This was conducted to ensure that the most appropriate model was selected for analysis (Hooper et al.,2008).

There were four criteria that were used to validate the model fit. These were convergent validity, discriminant validity, construct reliability and construct validity (Hair et al., 2011). Different fit statistical tests were used to determine whether the model provided adequate fit for the data. The fit indices were used to assess whether overall models were acceptable and if acceptable researcher establish whether specific paths were significant (Hu & Bentler,1999).The most basic test, chi-square goodness of fit test was used (Hair et al., 2010).In order to ascertain that the model provided adequate fit for the data, the study also considered absolute fit indices and incremental fit indices (Hair et al.,2010).The second phase was the specification of the structural model and evaluation of the relationships proposed and testing of hypothesis (Bryne, 2006). Structural equation modeling was used to test the hypothesized relationship and to fit the structural model. SEM assumes linear relationships or unidirectional causal relationships between the research indicators and latent variables, as well as between latent variables (Bryne, 2006). Path diagrams (models) were used to specify patterns of directional and non-directional relationships among observed variables. This was conducted by use of Analysis of Moment Structures (AMOS) software (Byrne, 2006).The software was also used to assess the model's fit, computes results and develops a visual/graphical output (Bhattacharyya, 2007).

In statistics, path analysis is used to describe the directed dependencies among a set of variables. This includes models equivalent to any form of multiple regression analysis, factor analysis, canonical correlation analysis, discriminant analysis, as well as more general families of models in the multivariate analysis of variance and covariance analyses (MANOVA, ANOVA, ANCOVA) (Dodge, 2003). Prior to SEM, exploratory factor analysis was conducted to ensure that factor loadings for indicators to be used were more than 0.4 and that variable indicators converged on one common construct. Regression weights were used to test the contribution of each indicator to their relevant constructs (convergent validity). Regression weights were also used to explain the nature of the relationship since all the variables were in the same measurement scale. Path coefficients were used to determine the direction and strength of the factor. R^2 was used to show the proportion of variation in dependent variable explained by the SEM models. T-statistics provided information on the significance of the relationship. T-statistics value (C.R) was used to test whether the models were significant by comparing the model output (t-calc) with the conventional critical value of -1.96 or 1.96at 0.05 significance level ($p<0.05$). This made the null hypothesis to be accepted or rejected.

3.9 Diagnostic Tests

3.9.1 Linearity Test

Linearity means that two variables, "x" and "y," are related by a mathematical equation "y = cx," where "c" is any constant number. The importance of testing for linearity lies in the fact that many statistical methods require an assumption of linearity of data. This occurs when data is sampled from a population that relates the variables of interest in a linear fashion. This means that before using common methods like linear regression, tests for linearity must be performed (Jin, Parthasarathy, Kuyel, Geiger & Chen, 2015). Linearity test was conducted for each variable. SPSS, statistical software tool through scatter graph graphical method was used to observe with ease the possibility of the data arriving from a linear population.

3.9.2 Normality Tests

Parametric tests such as correlation and multiple regression analysis require normal data. When data is not normally distributed it can distort the results of any further analysis. Preliminary analysis to assess if the data fits a normal distribution was performed. To assess the normality of the distribution of scores, KolmogorovSmirnov test and graphical method approach were used. When non-significant results (>0.05) are obtained for a score it shows the data fits a normal distribution (Tabachnik & Fidell, 2017).

3.9.3 Multicollinearity

Multi-collinearity was assessed in this study using the Variance Inflation Factor and tolerance. Tests for multi-collinearity was carried out because in severe cases of perfect correlations between predictor variables, multi-collinearity can imply that a unique least squares solution to a regression analysis cannot be computed Field (2009). Multi-collinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors.

3.9.4 Heteroscedasticity

Since the data for this research is a cross-section of firms, this raises concerns about the existence of heteroscedasticity. The Classical Linear Regression Models (CLRM) assumes that the error term is homoscedastic, that is, it has constant variance. If the error variance is not constant, then there is heteroscedasticity in the data. Running a regression model without accounting for heteroscedasticity would lead to biased parameter estimates. To test for heteroscedasticity, the Breusch-Pagan/Godfrey test (1979) wasbe used. The null hypothesis of this study was that the error variance is homoscedastic. If the null hypothesis is rejected and a conclusion made that heteroscedasticity is present in the panel data, then this would be accounted for by running a Feasible Generalized Least Squares (FGLS) model.

3.9.5 Factor Analysis

Factor analysis was used to reduce the number of variables by combining two or more variables into a single factor and to identify groups of inter-related variables to see how they were related to each other (Zikmund et al., 2010). Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were employed to understand shared variance of measured variables that were believed to be attributable to a factor or latent construct (Thompson, 2004). EFA was used at the early stages of research in order to identify the variables that cluster together (Bordens & Abbot, 2014). The goal of EFA was to identify factors based on data and to maximize the amount of variance explained (Suhr, 2006). EFA is used when one has a large set of variables that are to be described in simpler terms and have no a priori ideas about which variables will cluster together (Tabachnick & Fidell, 2013).

Principal Component Analysis (PCA) which is a descriptive variable reduction statistical technique was used in factor extraction. The goal of PCA was to extract maximum variance from the data set with each component (Tabachnick & Fidell, 2013). Principal Component Analysis orthogonal rotation, Varimax methods were used to extract quality constructs for each of the independent variable (Zikmund et al., 2010). Rotations can be orthogonal or oblique (allowing the factors to correlate). Varimax rotation which is an orthogonal rotation was used in factor extraction. Varimax solution yielded results which made it easy to identify each variable with a single factor (Zikmund et al., 2010). Rotation serves to make the output more understandable by

seeking the so-called "simple structure", a pattern of loadings where items load most strongly on one factor and much more weakly on the other factors (Zikmund et al., 2010).

The factor loadings, also called component loadings in PCA which is the correlation coefficients between the cases (rows) and factors (columns) was used to indicate the percent of variance in the indicator variable explained by the factor. Tabachnick and Fidell (2007) indicate that a loading factor of 0.32 is a good for minimum loading of an item. However Hair, et al., (2010) guideline for practical significance indicates that a factor loading of ±0.3 means the item is of minimal significance, ±0.4 indicates it is more important and ±0.5 indicates the factor is significant. The study therefore used a threshold factor loading of ±0.4.

Confirmatory factor analysis (CFA) was used to test the hypothesis that the items used in measuring each objective were associated with specific factors (Zikmund et al., 2010). CFA evaluates a priori hypotheses and is largely driven by theory. CFA analyses require the researcher to hypothesize in advance, the number of factors whether or not these factors are correlated and which items load onto and reflect which factors (Thompson, 2004). CFA was used for evaluation of relationships between observed variables and unobserved variables that accounts for the correlation among observed variables (Zikmund et al., 2010). Hypothesized models were tested against actual data and the analysis used to demonstrate loadings of observed variables on the latent variables (factors) as well as the correlation between the latent variables (Zikmund et al., 2010).

Table 3.3: Hypotheses and Data Analytical Models

Objectives	Hypothesis	Analytical Method	Interpretation
Objective 1: To determine the influence of business strategies on performance manufacturing firms in Kenya	Ho: Business strategies have no significant influence on performance of manufacturing firms in Kenya.	Simple Regression Analysis **Equation:** FP = f(Business strategies) $FP = \beta 01 + \beta\ 1BS + \varepsilon_1$ Where: FP = Firm performance $\beta 01$, β 1 are coefficients BS = Business strategies ε_1= error term	R value (Range +1 to -1) If R = +1 there exists a strong positive relationship If R = -1 then there is a strong negative relationship
Objective 2: To assess the mediating effect of innovation processes on the relationship between business strategies and performance of manufacturing firms in Kenya	Ho: Innovation processes have no significant mediating effect on the relationship between business strategies and performance of manufacturing firms in Kenya.	Stepwise Regression Analysis **Equations:** Y = f (Business strategies, Innovation processes) $Y = \beta_{01} + \beta_1 X_1 + \varepsilon_{I0}$ $M = \beta_{02} + \beta_2 X_1 + \varepsilon_{11}$ $Y = \beta_{03} + \beta_3 M + \varepsilon_{I2}$ $Y = \beta_{04} + \beta_4 X_1 + \beta_5 M + \varepsilon_{I3}$ Where: Y = performance of manufacturing firms in Kenya X1= Business strategies; M= Innovation processes	If the relationship between business strategies and performance of manufacturing firms in Kenya is significant (β, t are significant, P<0.05): relationship between business strategies and Innovation processes is significant β, t are significant, P<0.05): relationship between Innovation processes and performance of manufacturing firms in Kenya is significant (β, t are significant, P<0.05):and the relationship between business strategies and performance of manufacturing firms in Kenya is no longer significant when the effect of Innovation processes are controlled for (β, t are significant, P<0.05)then Innovation processes intervene the relationship.

Objective 3: To examine the moderating effect of government policies on the relationship between business strategies and performance of manufacturing firms in Kenya	Ho: Government policies have no significant mediating effect on the relationship between business strategies and performance of manufacturing firms in Kenya.	Stepwise Regression Analysis **Equations** $FP = \beta_{01} + \beta_1 BS + \varepsilon_{M0}$ $FP = \beta_{02} + \beta_1 BS + \beta_2 IP + \varepsilon_{M1}$ $FP = \beta_{03} + \beta_1 BS + \beta_2 Z + \beta_3 BS.Z + \varepsilon_2$ Where: FP = Firm Performance BS = Business Strategies Z = Innovation Process BS.Z = Interaction Term	If change in R^2 after addition of interaction term (moderator) is significant (R2 change, F change, β, t are significant. P< 0.05) the Innovation process moderate the relationship
Objective 4: Examine the joint influence of business strategies, government policies and innovation on performance of manufacturing firms in Kenya.	**H_0:** There is no significant joint effect business strategies, government policies and innovation on performance of manufacturing firms in Kenya.	Multivariate Regression **Equations** $FP = \beta_{01} + \beta_1 BS + \varepsilon_1$ $FP = \beta_{01} + \beta_5 BS + \beta_6 IP + \beta_7 GP + \beta_8 BS.GP + \beta_9 BS.IP.GP + \varepsilon_1$	If R^2 for the joint influence is greater than R^2 for individual effect model, then the joint influence of business strategies, government policies and innovation processes is greater than the individual effect of business strategies and performance of manufacturing firms in Kenya.

3.10 Chapter Summary

This chapter presented the methodology where positivism research philosophy was adopted. A cross sectional survey research design was used. The target population for this study was 903 firms registered with Kenya Association of Manufacturers and the target respondents were the 903 respondents. The study used Fischer's et al. formula at 95% confidence interval to arrive at a sample size of 269 from which purposive sampling techniques was applied to allow the selection of one respondent from every firm. Primary data was collected through questionnaires. Seven research assistants were engaged in collecting primary data. The data was analyzed and the findings were presented in chapter four.

CHAPTER FOUR

DATA ANALYSIS AND RESEARCH RESULTS

4.1 Introduction

This chapter presents the findings and discussion of results of the study on business strategies, government policies and firm innovation on the performance of manufacturing firms in Kenya. It is divided into six sections covering: response rate, results of the pilot test, respondents' background information, and diagnostic tests of variables, descriptive analysis and inferential analyses. Data were further presented in the form of frequency distribution tables to facilitate description and explanation of the study findings.

4.2 Response Rate

From a target respondents of 269, data was collected from 173 respondents recording 64.3% response rates.

Table 4.1: Response Rate

	Frequency	**Percent**
Questionnaires administered	269	100.0
Completely filled and returned Questionnaires	173	
Response rate		**64.3**

The response rate was considered excellent given the recommendations by Mugenda and Mugenda (2003) that a response rate of 50% is adequate for analysis and reporting, a rate of 60% is generally good while a response rate of above 70% is good enough. Based on these assertion, this implies that the response rate for this study was adequate.

4.3 Results for the Pilot Survey

4.3.1 Test of Construct Validity

In order to check the relevance and validity the questionnaires were tested. According to Patton (2002), the researcher is guided by the factor analysis exploratory tool to decide whether the investigated variables could explain the dependent variables. In this study, validity was focused on determining if the results recorded explained firm performance. To do this, the role of the constructs being measured in the dependent variable were explained by factors developed from factor analysis. The identical tactic that has been largely accepted for factor analysis is majorly

used as evidenced in the use by studies like Lee and Teo (2005). Cooper and Schindler (2007), on acceptable factors of loading have a value of 0.40 and above and is thought acceptable therefore has been employed by other analysts like Gomber, Schweickert, and Theissen, (2004) when they studied manufacturing firms. Factor analysis results are indicated (See Appendix 5). The results indicate that all the determinants related to business strategies, government policies, innovation process and firm performance had a factor loading of 0.4 and above and therefore, they were adopted in the following analysis.

4.3.2 Reliability Analysis Results

The study sought to establish the internal consistency of the key variables in the study. This was achieved by subjecting the three key variables to a reliability test as shown in Table 4.2.

Table 4.2: Reliability Analysis

	Cronbach's Alpha	No. of Items	Verdict
Business strategies	0.853	13	Accepted
Government policies	0.780	9	Accepted
Innovation	0.842	9	Accepted
Firm performance	0.754	8	Accepted

A scale test of the three variables yielded Cronbach alpha coefficients greater than 0.7 which was considered very reliable in providing consistent results overtime. George and Mallery (2003) provided the following rule of thumb: a value greater than 0.9 as excellent, value greater than 0.8 as good, value greater than 0.7 as acceptable, value greater than 0.6 as questionable, a greater than 0.5 as poor, and a less than 0.5 = unacceptable. The closer Cronbach's alpha coefficient is to1.0, the greater the internal consistency of the items in the scale.

4.4 Demographic Characteristics

The study sort to establish the demographic and firm characteristics.

4.4.1 Demographic Characteristics of the Respondents

Respondents' Job Designation

The study sought to establish the job position of respondents in their respective organization.

Table 4.3: Respondents' Position

		Frequency	Percent
Valid	Chief Executive Officer	68	39.3
	General Manager/Functional Head	61	35.3
	Head of Department	44	25.4
	Total	**173**	**100.0**

The results in Table 4.3 indicated that 68(39.3%) were chief executive officers, 61(35.3%) were either General Manager or Functional Head while 44(25.4%) were heads of departments. The distribution of employee profile was appropriate to meet the needs and demand of the study. The employees drawn were the right people with adequate information and relevant to this study as far as business strategies and firm performance was concerned.

4.4.2 Firm Characteristics

4.4.2.1 Firms' Length of Operation

The study sought to establish the length in time the firms had been operation.

Table 4.4: Firms' Length of Operation

		Frequency	Percent
Valid	Up to 10 years	34	19.7
	11-20 years	27	15.6
	21-30 years	29	16.8
	31-40 years	33	19.1
	above 40 years	50	28.9
	Total	**173**	**100.0**

The results in Table 4.4 indicate that 50(28.9%) had been in operation for more than 40 years while a few 27(15.6%) indicated 11 – 20 years.

This means that firms with more than 10 years in operation had their employees in position to share vast experience and knowledge about their respective firm performance with regard to changes in business strategies employed. As Ghafoor (2013) notes, firms that have been in operation for long translate into valuable experience in the execution of business strategies and thus have detailed and clear information pertaining to how their firm is influenced by adopted business strategies.

4.4.2.2 Number of Employees

The study sought to establish the number of employees working in the firms under study.

Table 4.5: Number of Employees

		Frequency	Percent
Valid	Up to 100	40	23.1
	101-200	55	31.8
	201-300	34	19.7
	301-400	22	12.7
	Above 400	22	12.7
	Total	**173**	**100.0**

The results in Table 4.5, indicated that 55(31.8%) had 101 – 200 employees, 40(23.1%) had less than 100 employees while 22(12.7%) had 301 -400 employees and above 400 employees respectively. This shows that most firms had more than 100 employees. This finding is consistent to the findings by African development bank group (2014) which shows that the manufacturing sector in Kenya scope employed a minimum of 100 employees as a result of the many departments.

4.4.2.3 Firms' Scope of Operation

The study sought to determine the scope of operation since this predicts the capability of the organization to access local, regional, or international markets.

Table 4.6: Firms' Scope of Operation

		Frequency	Percent
Valid	National	77	44.5
	Regional	58	33.5
	International	37	21.4
	Missing response	1	.6
	Total	**173**	**100.0**

The results in Table 4.6 shows that 77(44.5%) operate at the national level, 58(33.5%) operate regionally, while 37(21.40%) operate internationally. This shows that most of manufacturing firms target the local market. This finding is consistent to the finding by African development bank group (2014) which shows that the manufacturing sector in Kenya scope of operation is for the local market.

4.5 Descriptive Analysis

The main purpose of a descriptive statistic is to calculate summary measures, to describe the location (a measure of the middle value) and the spread (a measure of the dispersion of the values) for each variable. Descriptive are of great interest, especially when comparing between groups or when the results of the study are to be generalized (Zikmund et al., 2013). The following is a general descriptive analysis based on responses on all variables.

4.5.1 Descriptive of Information Technology

On a five-point Likert's-scale, respondents indicated the extent to which they agreed or disagreed with various aspects of information technology concerning firm performance. The rating on the five Point Likert's-type scales ranged from 1, which was "Strongly Disagree" to 5, which was "Strongly Agree". The data was analyzed based on mean and standard deviation. Standard deviations were used to show the range of dispersions of the responses. The findings were then presented in Table 4.7.

Table 4.7: Information Technology and Firm Performance

Information Technology	M	SD	t	CV (%)	Mode	Median
Use of technology reduces the average cost of production	3.98	.097	54.152	24.3	4.00	4.0
Information technology increases the competitive nature of organizations	3.76	.958	51.594	25.5	4.00	4.0
Investment in technology increases delivery of quality services	3.86	1.019	49.830	26.4	4.00	4.0
Investment in technology enables firms to achieve price reduction	3.71	1.006	48.458	27.1	4.00	4.0
Investing in information technology increases firms' return on investment	3.76	1.076	45.982	28.6	4.00	4.0

The result in Table 4.7 show high ranking with respect to information technology (Mean score above 3.71 was recorded for most of the information technology constructs. Notably, all statements had median and mode values of 4.0 implying that majority of the respondents were in agreement with the statements. The aspect 'Use of technology reduces the average cost of production' had the highest coefficient of Variation (CV) of 28.6 percent suggesting that there was a relatively high level of disagreement among the respondents. Conversely, the statement 'Use of technology reduces the average cost of production' and 'Information technology

increases the competitive nature of organizations' had the lowest coefficient of Variation (CV) of 24.3 and 25.5 percent respectively suggesting that there was a relatively high level of agreement among the respondents.

4.6 Differentiation and Performance

The study sought to establish the influence of differentiation on the performance of firms in the manufacturing industry in Kenya. The results were presented in the sections below.

4.6.1 Descriptive of Differentiation and Performance

On a five-point Likerts'-scale, respondents indicated the extent to which they agreed or disagreed with various aspects of differentiation in relation to performance. The rating on the five Point Likerts-type scales ranged from 1, which was "Strongly Disagree" to 5, which was "Strongly Agree". The data were analyzed based on mean and standard deviation. Standard deviations were used to show the range of dispersions of the responses. The findings were then presented in Table 4.8.

Table 4.8: Descriptive of Differentiation Strategies

Differentiation	M	SD	t	CV (%)	Mode	Median
The organization values customers through delivery of quality products and services	3.58	.928	59.324	22.2	4.00	5.0
The firm meets tastes and preferences of customers	4.20	.928	56.886	23.1	4.00	4.0
The firm honors contractual agreements	3.41	.913	60.468	27.8	4.00	5.0
The firm delivers products/services to customers in a timely manner	3.86	.963	52.679	21.0	4.00	4.0

The result in Table 4.8 show high ranking with respect to differentiation (Mean score above 3.58 was recorded for most of the differentiation constructs). Notably, all statements had median and mode values of 4.0 implying that majority of the respondents were in agreement with the statements. The aspect 'The firm honors contractual agreements' had the highest coefficient of Variation (CV) of 27.8 percent suggesting that there was a relatively high level of disagreement among the respondents. Conversely, the statement 'Use of technology reduces the average cost of production' and 'The firm delivers products/services to customers in a timely manner' had the

lowest coefficient of Variation (CV) of 22.2 percent suggesting that there was a relatively high level of agreement among the respondents.

4.7 Market Focus Strategies and Performance

The study sought to establish the influence of market focus strategies on the performance of firms in the manufacturing industry in Kenya. The results are presented in the sections below.

4.7.1 Descriptive of Market Focus Strategy

On a five-point Likert's-scale, respondents indicated the extent to which they agreed or disagreed with various aspects of market focus strategies in relation to performance. The rating on the five Point Likert's-type scales ranged from 1, which was "Strongly Disagree" to 5, which was "Strongly Agree". The data was analyzed based on mean and standard deviation. Standard deviations were used to show the range of dispersions of the responses. The findings were then presented in Table 4.9.

Table 4.9: Descriptive of Market Focus

Market Focus	M	SD	t	CV (%)	Mode	Median
Your firms is conscious about the goods required by consumers	4.02	.934	56.681	23.2	4.00	4.0
Your firm offers unique products/services	3.77	1.138	43.559	30.2	4.00	4.0
Your organization charges low prices compared to competitors	3.36	1.167	37.932	34.7	4.00	4.0
Your firm concentrates on a specific market/niche	3.53	1.118	41.468	31.7	4.00	4.0
Composite Mean Score	**3.67**	**1.089**				

The result in Table 4.9 show high ranking with respect to market focus (Mean score above 3.67 was recorded for most of the statements. Notably, all statements had median and mode values of 4.0 implying that majority of the respondents were in agreement with the statements. The aspect 'Your organization charges low prices compared to competitors' had the highest coefficient of Variation (CV) of 34.7 percent suggesting that there was a relatively high level of disagreement among the respondents. Conversely, the statement 'Your firms is conscious about the goods required by consumers' had the lowest coefficient of Variation (CV) of 23.2 percent suggesting that there was a relatively high level of agreement among the respondents.

4.7.2 Descriptive Analysis for Innovation Process

Innovation process was operationalized along three practices namely; process innovation, product innovation and market innovation. To capture data on these operational indicators, respondents were asked to indicate on a 5 – point Likerts scale to what extent the various aspects of the indicators applied in their firm. The results of one sample t-test are presented in Table 4.10.

Table 4.10: Innovation Process

Statement	M	SD	t	CV (%)	Mode	Median
Use of modern technology increases firm performance	3.90	1.073	47.745	27.55	4.0	4.0
Our processes are reliable	3.40	1.176	38.095	34.53	4.0	4.0
Our production is cost effective	3.16	1.185	35.099	37.47	3.0	4.0
We produce new and unique products	3.08	1.316	30.728	42.81	3.0	4.0
Our production and distribution patterns are non-replicable	2.55	1.198	28.058	46.88	3.0	1.0
We manufacture substitute products	2.58	1.330	25.498	51.59	3.0	1.0
We export products	2.86	1.388	27.058	48.61	3.0	4.0
Entering new markets increases the number of customers	3.37	1.221	36.309	36.22	4.0	4.0
We collect information about customer needs	3.23	1.158	36.693	35.85	3.0	4.0
Composite Mean	**3.13**					

N = 173

The result in Table 4.10 show moderately high ranking with respect to innovation process (Mean score above 3.0 was recorded for most of the innovation process description). Notably, statements with mode values of 4.0 indicated that majority of the respondents were in agreement with the statements. Whereas statements with mode values of 3.0 indicated that the respondents neither agreed nor disagreed with the statement. The aspect 'Use of modern technology increases firm performance' had the highest mean score of 3.90. The statements 'Our production and distribution patterns are non-replicable' and 'We manufacture substitute products' had the lowest mean of 2.55 and 2.58 respectively, implying that majority of the respondents disagreed with the statements. The statement 'We manufacture substitute products' had the highest coefficient of Variation (CV) of 51.59 percent suggesting that there was a relatively high level of disagreement among the respondents. Conversely, the statement 'Use of modern technology increases firm

performance' and 'Our processes are reliable' had the lowest coefficient of Variation (CV) of 27.55 and 34.53 percent respectively suggesting that there was a relatively high level of agreement among the respondents.

4.7.3 Descriptive Analysis for Firm Performance

Firm performance was operationalized along three practices namely; financial performance, customer satisfaction and internal process performance. To capture data on these operational indicators, respondents were asked to indicate on a 5 – point Likerts scale to what extent the various aspects of the indicators applied in their firm. The results of one sample t-test are presented in Table 4.11.

Table 4.11: Firm Performance

Statements	M	SD	t	CV (%)	Mode	Median
Sales growth increases performance of our firm	3.97	1.128	46.304	28.41	4.0	4.0
We use return on sales to measure firm performance	3.58	1.141	41.302	31.85	4.0	4.0
Return on assets increases firm performance	3.62	1.085	43.925	29.94	4.0	4.0
Satisfying customer needs increases our market share	4.02	1.059	49.889	26.36	4.0	4.0
Number of new customers in our organization is increasing	3.71	1.029	47.381	27.76	4.0	4.0
Operational costs determines efficiency of manufacturing processes	3.97	0.988	52.806	24.91	4.0	4.0
Our employee retention rate is high	3.71	1.023	47.644	27.61	4.0	4.0
Our average production costs is increasing	3.76	1.233	40.157	32.75	4.0	4.0
Composite Mean	**3.79**					

N = 173

The result in Table 4.11 show moderately high ranking with respect to firm performance (Mean score above 3.79 was recorded for most of the firm performance description). Notably, all statements had median and mode values of 4.0 implying that majority of the respondents were in agreement with the statements. The aspect 'Satisfying customer needs increases our market share' had the highest mean score of 3.90. The statements 'We use return on sales to measure

firm performance' and 'Return on assets increases firm performance' had the lowest mean of 3.58 and 3.62 respectively, implying that majority of the respondents disagreed with the statements. The statement 'Our average production costs is increasing' had the highest coefficient of Variation (CV) of 32.75 percent suggesting that there was a relatively high level of disagreement among the respondents. Conversely, the statement 'Operational costs determines efficiency of manufacturing processes' and 'Satisfying customer needs increases our market share' had the lowest coefficient of Variation (CV) of 24.91 and 26.36 percent respectively suggesting that there was a relatively high level of agreement among the respondents.

4.8 Diagnostic Tests of Variables

Before fitting a regression model, it is important to determine whether all the necessary model assumptions are valid before performing inference. If there are any violations, subsequent inferential procedures may be invalid resulting in faulty conclusions. It is therefore crucial to perform appropriate model diagnostics prior to carrying out statistical tests. In this study the researcher carried out the following tests: Test of normality, homoscedasticity test, multicollinearity test, auto-correlation test and linearity test.

4.8.1 Test of Normality

Normality tests determined whether data sets are well modeled by a normal distribution (Farrell & Stewart, 2006). The null hypothesis stated that the population is normally distributed, against the alternative hypothesis that it was not normally-distributed. Normality was tested and the results are given on the Table 4.12.

Table 4.12: Test of Normality

	Shapiro-Wilk		
	Statistics	**df**	**Sig**
Business strategies	.866	173	.124
Government policies	.855	173	.213
Innovation process	.877	173	.321
Firm performance	.798	173	.214

The test statistics results in Table 4.11 show results of normality test. For dataset small than 2000 elements, Shapiro-Wilk test is used, otherwise, the Kolmogorov-Smirnov test is used. In this study, since there were 174 elements, the Shapiro-Wilk test was used. From the results, the p-

value of the variables are as follows: business strategies showed normal distribution with a p-value of 0.124, government policies had normal distribution with a p-value of 0.213, normal distribution was observed on innovation process which had a p value of 0.321, and lastly normal distribution was observed on firm performance which had a p value of 0.214. The study rejected the alternative hypothesis and concluded that the data for the variables were normally distributed thus satisfied the regression assumption of normality allowing further analysis of the variables.

4.8.2 Homoscedasticity of the Residuals of Dependent Variable

Assessment of homoscedasticity of the residuals of firm performance was conducted. OLS makes the assumption that the variance of the error term is constant (Homoscedastic) (Greene, 2003). If the error terms do not have constant variance (have differing variance), they are said to be heteroscedastic. Violation of this assumption leads to bias in test statistics and confidence intervals (Greene, 2003). Levene Statistic was used to test the hypothesis for the homogeneity of variance that is, the error variances are all equal or homoscedastic.

Table 4.13: Test of Homogeneity of Variances

Levene Statistic	df1	df2	P-value
3.359	20	146	.000

Table 4.13 shows Levene Statistic of 4.642 with an associated p-value of.000. Since the probability associated with the Levene Statistic is 0.000 which is less than 0.05 level of significance, we fail to reject the hypothesis and conclude that the variance of the dependent variable were homogeneous.

Similarly Breusch-Pagan and Koenker test statistics was also used to test thenull hypothesis that heteroscedasticity was present. If significant-value is less than 0.05, reject the hypothesis and conclude that variance of independent variable was homoscedastic (Greene, 2003). Breusch-Pagan test is a large sample test and assumes the residuals to be normally distributed.

Table 4.14: Breusch-Pagan and Koenker Test for Heteroskedasticity

	SS	df	MS	F	Sig
Model	12.757	3.000	4.2523	1.088	.000
Residual	416.364	142.000	2.932	-999.000	-999.000

Table 4.14 shows Breusch-Pagan and Koenker test statistics of 12.757with an associated p-value of.000. Since the probability associated with the Breusch-Pagan and Koenker test was0.000 which is less than 0.05 level of significance, we reject the null hypothesis and conclude that the variance of the dependent variable were homogeneous/homoscedastic.

4.8.3 Multi-collinearity Test

The study sought to test the presence of multi-collinearity, this is the undesirable situation where the correlations among the independent variables are strong.

Table 4.15: Multi-collinearity Test

	Collinearity statistics	
	Tolerance	**VIF**
Business strategies	.734	1.363
Government policies	.777	1.287
Innovation process	.874	1.144

In order to test for multi-collinearity, VIF was computed using SPSS. Tolerance is the amount of variance in independent variable that is not explained by the other independent variable. VIF measures how much variance the regression coefficient is inflated by multicollinearity, thus misleadingly inflates the standard errors. The minimum cutoff value for tolerance is typically 0.10. The results of the tests of are presented in Table 4.15 indicating absence of multi-collinearity. When there is no problem with multicollinearity tolerance, value should not be less than 0.10 while VIF value should not be more than 10 (Newbert, 2008). If no two variables are correlated, then all the VIFs will be 1. If VIF for one of the variables is ≥ 5, then there is collinearity associated with that variable.

4.8.4 Independence of Residuals -Durbin–Watson Statistic

The Durbin-Watson test statistic tests the null hypothesis that the residuals from an ordinary least-squares regression are not auto-correlated against the alternative that the residuals follow an AR1 process. The Durbin-Watson statistic ranges in value from 0 to 4.

Autocorrelation makes predictors seem significant when they are not. The value of Durbin-Watson statistic lies between 0 and 4and 1.5-2.5 for the acceptable range. Values of 2 means that there is no autocorrelation in the sample (Verbeek, 2012).

Table 4.16: Durbin–Watson Statistic

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.673[a]	.453	.436	.45462	2.048

a. Predictors: (Constant), Business Strategies

b. Dependent Variable: Performance

Table 4.16 shows Durbin–Watson statistic of 2.048 which is within the acceptable range. This shows that there was no autocorrelation in the sample, hence the residuals were found to have independent errors.

Graphical method of testing independence of residual was also used to visualize the distribution of the residuals.

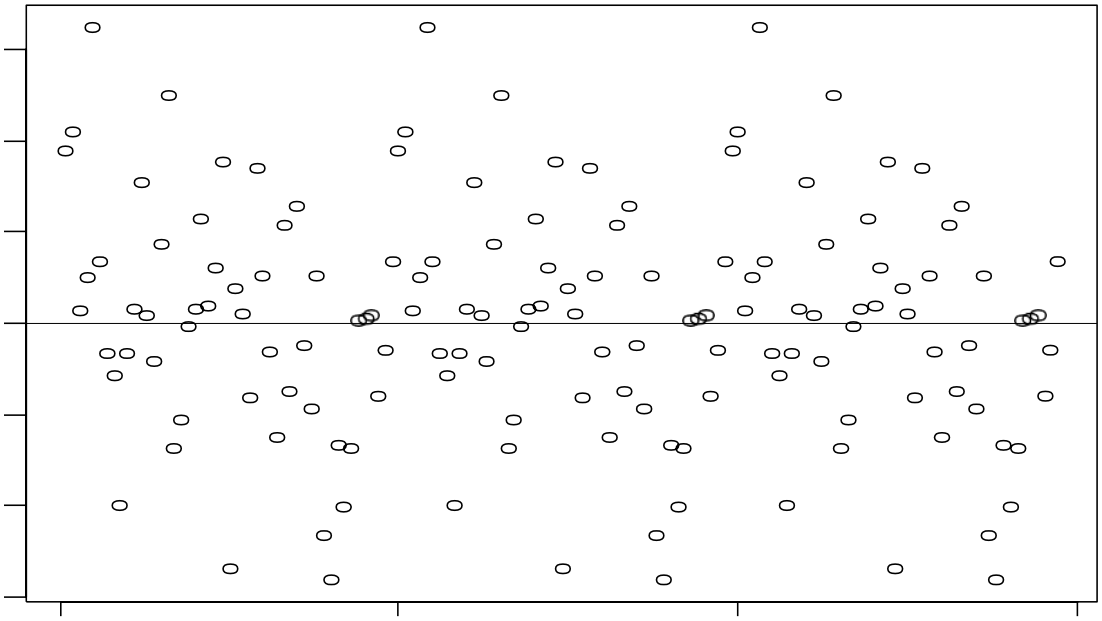


Figure 4.1: Durbin Watson Statistics-Independence of Residual

Figure 4.1 shows that residuals were scattered and oscillating around zero showing no pattern of distributed as they are on both positive and negative ends (Verbeek, 2012). This indicated that the residuals were not either positively or negatively auto-correlated hence independent.

4.8.5 Linearity Tests

Linearity test aims to determine whether the relationship between independent variables and the dependent variable is linear or not. The linearity test is a requirement in the correlation and the linear regression analysis.

Table 4.17: Linearity Test Results

		F	Sig.
Perf * BS	Deviation from Linearity	1.380	0.105
Perf * GP	Deviation from Linearity	1.610	0.135
Perf * IP	Deviation from Linearity	2.101	0.170

Table 4.17 shows the linearity tests results. The significance deviation from linearity all the variables for every category had a sig value of greater than 0.05, the study concluded that the relationship between the independent variables were linearly dependent.

4.9 Results of Correlation Analyses

The general objective of the current study was to establish the influence of business strategies, government policies and firm innovation on the performance of manufacturing firms in Kenya. Pearson product moment coefficient technique was used to conduct correlation analysis so as to ascertain the relationship among study variables.

4.9.1 Business Strategies, Government Policies, Innovation Process and Firm Performance

The study sought to establish the relationship between variables. The results are presented in Table 4.18.

Table 4.18: Correlation Analyses Results

		Innovation process	Business strategies	Government policies	Firm performance
Innovation process	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	173			
Business strategies	Pearson Correlation	.339**	1		
	Sig. (2-tailed)	.000			
	N	173	173		
Government Policies	Pearson Correlation	.215**	.462**	1	
	Sig. (2-tailed)	.001	.000		
	N	173	173	173	
Firm performance	Pearson Correlation	.303**	.434**	.215**	1
	Sig. (2-tailed)	.000	.000	.004	
	N	173	173	173	173

**. Correlation is significant at the 0.01 level (2-tailed).

The results indicated that there was a weak positive and significant relationship between government policies and firm performance (r = 0.215; P-value < 0.05), there was a moderate positive and significant relationship between business strategies and firm performance, government policies and firm performance (r = 0.434; P-value < 0.05). Lastly, there was a moderate, positive and significant relationship between innovation processes and firm performance (r = 0.303; P-value < 0.05).

4.10 Hypotheses Testing

This chapter presents the hypothesis test results using regression analysis and a discussion of the implications of the results. The broad objective of this study was to determine the relationship between business strategies, government policies and firm innovation on the performance of manufacturing firms in Kenya. To achieve this, four specific objectives were set and corresponding hypotheses stated. Simple, multiple and hierarchical regression analysis were used to test these hypotheses. Simple regression was used to test independent effects, multi regression used to test combined effects while hierarchical regression was used to test the moderating and the intervening effects. These tests were carried out at 95 percent significant level ($p<0.05$).

Decision points to reject or fail to reject a hypothesis were based on the p-values. Where $p<0.05$ the study failed to reject the hypotheses. And where $p>0.05$, the study rejected the hypotheses. Interpretations of results and subsequent discussions also considered coefficients of determinations (R^2), F-Statistic values and beta values. R^2 indicated the change in dependent variable explained by change in the independent variable. In this regard, where the results high the R^2 it was interpreted to mean high explanatory power of the model. Further, the higher F-Statistic the more significant the model was. The negative or positive effect of the independent variable on the dependent (either negative or positive) was explained by checking the beta (β) sign. The findings are presented in various sections of this chapter along study objectives and corresponding hypotheses. The results have been discussed in within the context of theory and empirical literature.

4.10.1 Business Strategies and Firm Performance

4.10.1.1 Information Technology and Firm Performance

The study used Table 4.19 to establish whether a information technology has a linear dependence on the independent variables (firm performance). The study established a correlation value of 0.776. This depicted a very good linear dependence between dependence on the independent variables. An R-square value of 0.602 was established and adjusted to 0.590. The coefficient of determination depicts that information technology bring about 59.0% variations in firm performance. The coefficient of determination (R^2), further, shows a strong relationship as the value of R^2 is greater than 0.1 ($R^2 < 0.1$). Durbin Watson value of 2.169 was established illustrating a lack of auto-correlation in the model residuals.

Table 4. 19: Model Summary of Information Technology and Firm Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.776[a]	.602	.590	7.79996	2.169

a. Predictors: (Constant), Information technology

From ANOVA in Table 4.20, there is a p-value of 0.006. The study concludes that there was a significant relationship between information technology and firm performance in the manufacturing industry. This implies that the information technology has a significant influence on firm performance.

Table 4.20: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	483.407	1	483.407	19.692	.006[b]
	Residual	4197.917	171	24.549		
	Total	4681.324	172			

a. Dependent Variable: Performance
b. Predictors: (Constant), Information technology

The study conducted a regression analysis to establish the influence of information technology on firm performance. The regression equation ($Y = \beta 0 + \beta_1 X_1 \alpha$) was:

$Y = 34.562 + 0.246X_1 + 0$

Whereby: Y = Firm performance and X_1 = Information technology

According to the regression equation established, taking Information technology constant at zero, the firm performance will be 34.562. The data findings analyzed also shows that taking all other factors at zero, a 1 percent change in information technology will lead to a 0.246 percent variation in firm performance.

Table 4.21: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	34.562	5.757		6.004	.000
	Information technology	.246	.087	.321	2.819	.006

a. Dependent Variable: Firm performance

4.10.1.2 Differentiation Strategy and Firm Performance

The study used Table 4.22 to establish whether a differentiation strategy has a linear dependence on the independent variables (Performance). The study established a correlation value of 0.887. This depicts a very good linear dependence between dependence on the independent variables. An R-square value of 0.787 was established and adjusted to 0.784. The coefficient of determination depicts that differentiation strategies bring about 78.4% variations in performance. The coefficient of determination (R^2), further, shows a strong relationship as the value of R^2 is greater than 0.1 ($R^2 < 0.1$). Durbin Watson value of 2.239 was established illustrating a lack of autocorrelation in the model residuals.

Table 4.22: Model Summary of Differentiation and Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.887[a]	.787	.784	3.79860	2.239

a. Predictors: (Constant), Differentiation

From ANOVA in Table 4.23, there is a p-value of 0.000. The study concludes that there is a significant relationship between differentiation and performance in the manufacturing industry. This implies that the differentiation strategy has a significant influence on performance.

Table 4.23: ANOVA of Differentiation and Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3685.700	1	3685.700	5.8224	.000[b]
	Residual	995.624	171	14.429		
	Total	4681.324	172			

a. Dependent Variable: Performance
b. Predictors: (Constant), Differentiation

The study conducted a regression analysis to establish the influence of differentiation on performance. The regression equation ($Y = \beta 0 + \beta_1 X_1 \alpha$) was:

$Y = 15.776 + 0.517X_1 + 0$

Whereby: Y = Performance and X_1 = Differentiation

According to the regression equation established, taking differentiation constant at zero, the performance will be 15.776. The data findings analyzed also shows that taking all other factors at zero, a 1 percent change in differentiation will lead to a 0.517 percent variation in performance.

Table 4.24: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	15.776	2.224		7.094	.000
	Differentiation	.517	.032	.887	15.982	.000

a. Dependent Variable: Performance

4.10.2 Market Focus Strategies and Firm performance

The study used Table 4.25 to establish whether market focus strategies have a linear dependence on the independent variables (firm performance). The study established a correlation value of 0.784. This depicts a very good linear dependence between dependence on the independent variables. An R-square value of 0.615 was established and adjusted to 0.609. The coefficient of determination depicts that market focus strategies bring about 60.9% variations in firm performance. The coefficient of determination (R^2), further, shows a strong relationship as the

value of R^2 is greater than 0.1 ($R^2 < 0.1$). Durbin Watson value of 2.669 was established illustrating a lack of autocorrelation in the model residuals.

Table 4.25: Model Summary of Market Focus Strategy and Firm performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.784[a]	.615	.609	5.11321	2.669

a. Predictors: (Constant), Market Focus Strategies

From ANOVA in Table 4.26, there is a p-value of 0.000. The study concludes that there is a significant relationship between market focus strategies and firm performance in the manufacturing industry. This implies that market focus strategies have a significant influence on firm performance.

Table 4.26: ANOVA of Market focus Strategy and Firm performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2877.325	1	2877.325	272.758	.000[b]
	Residual	1803.999	171	10.549		
	Total	4681.324	172			

a. Dependent Variable: Firm performance

b. Predictors: (Constant), Market Focus Strategies

The study conducted a regression analysis to establish the influence of market focus strategies on firm performance. The regression equation ($Y = \beta 0 + \beta_1 X_1 \alpha$) was:

$Y = 24.236 + 0.452X_1 + 0$

Whereby: Y = Firm performance and X_1 = Market focus strategies

According to the regression equation established, taking market focus strategies constant at zero, the firm performance will be 24.236. The data findings analyzed also shows that taking all other factors at zero, a 1 percent change in market focus strategies will lead to a 0.452 percent variation in firm performance.

Table 4.27: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	24.236	2.583		9.382	.000
Market Focus Strategies	.452	.043	.784	10.491	.000

a. Dependent Variable: Firm performance

4.10.1.4 Business Strategies and Performance

The first objective of the study was to establish to determine the influence of business strategies on performance manufacturing firms in Kenya. The predicted model relating business strategies and firm performance was presented using the linear regression model as: $FP= \beta_0 +\beta_1 X_1+ \varepsilon$ Where FP was Firm performance, β_0 was constant associated with regression model, β_1 was coefficients of brand management practices indicators, X_1 was Business strategies and ε was the error term.

The study tested the influence of business strategies on performance manufacturing firms in Kenya using regression analysis. Firm performance (dependent variable) was regressed on business strategies (Independent variable) and the relevant results are presented in Table 4.25.

Table 4.28: Regression Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636[a]	.404	.390	.71002

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.363	3	14.121	28.010	.000[b]
	Residual	62.512	124	.504		
	Total	104.875	127			

Predictors: (Constant), Information technology, Customer focus, differentiation strategy
Dependent Variable: Performance

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.430	.382		1.125	.263
	Information technology	.405	.082	.380	4.954	.000
	Customer focus	.311	.084	.286	3.723	.000
	differentiation strategy	.147	.063	.172	2.342	.021

a. Dependent Variable: Performance

The regression results also showed that business strategies (information technology, customer focus and differentiation strategy) had explanatory power on performance of manufacturing firms in Kenya in that it accounted for 40.4 percent of its variability (R square = 0.404).

The ANOVA results in Table 4.25 show a p-value of 0.000 which is less than 0.05. This indicates that the model is statistically significant in explaining the impact of the independent variables on the dependent variable. The null hypothesis stated that business strategies have no significant effect on organizational performance of manufacturing firms in Kenya was rejected at 95% level of confidence and the study confirmed that business strategies significantly affect the performance of manufacturing firms in Kenya.

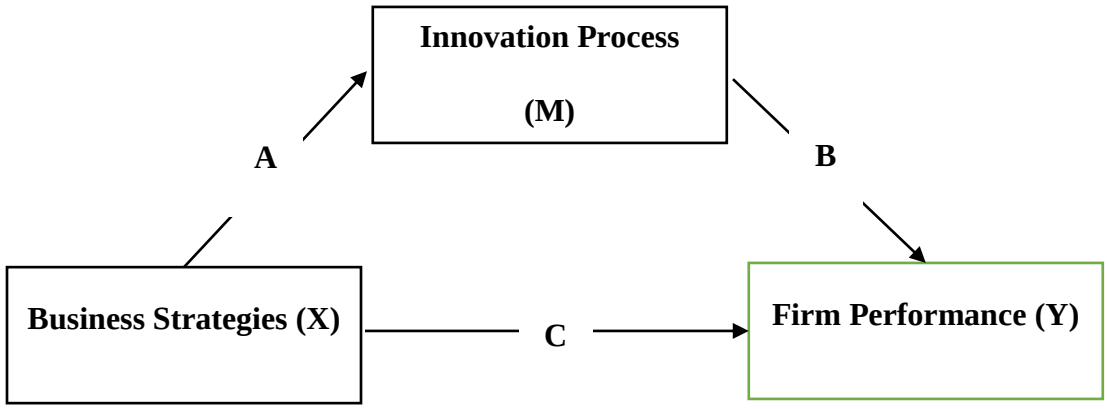
The regression analyses revealed that holding information technology, customer focus and differentiation strategy constant at zero, firm performance will be 0.430. A unit increase in information technology will result in .405 units increase in performance of manufacturing firms in Kenya, a unit increase in customer focus will result in .311 units increase in performance of manufacturing firms in Kenya and lastly a unit increase in differentiation strategy will result in .147 units increase in performance of manufacturing firms in Kenya.

4.10.2 Business Strategies, Innovation Process and Firm Performance

The second objective was to establish the mediating effect of innovation process on the relationship between business strategies and performance of manufacturing firms in Kenya. In testing for the mediating effect of innovation process on the influence of business strategies on firm performance, the Baron and Kenny (1986) approach was employed.

The approach known as step wise technique includes a three-step process whereby one step evaluates the influence of business strategies on firm performance. Step two evaluates the influence of business strategies on innovation process. Step three evaluates the influence of business strategies and innovation process on firm performance and the requirement is that the influence of the mediator (innovation process) should be statistically significant. Complete mediation is present when the independent variable (business strategies) no longer influences the dependent variable after the mediator has been controlled and all of the above conditions are met. Partial mediation occurs when the independent variable's influence on the dependent variable is reduced after the mediator is controlled.

The direct and indirect effect in testing for the mediating effect was as presented in the path diagram in Figure 4.2.



Key: X = Independent variable; M = Mediating variable and Y = Dependent variable

Figure 4.2: Path diagram for Mediation Effect

Source: Baron, R.M., & Kenny, D. A., (1986).

Path C represents the direct effect of Business strategies and firm performance. Path A represents the interaction of business strategies and innovation process which is the indirect effect (mediating) while path B represents the influence of innovation strategies on firm performance. Paths A and B represent the indirect effect.

Step one of the tests for the intervening effect of innovation process on firm performance was performed. This step involved evaluating the influence of business strategies on firm performance. The requirement is that this influence should be statistically significant. Consequently, the influence of business strategies on firm performance was evaluated while controlling for innovation process. The influence of business strategies on firm performance should also be statistically significant when controlling for innovation process for mediation to be confirmed. To determine the mediating effect of innovation process on the relationship between business strategies and firm performance, regression analysis was conducted and the findings were presented as shown in Table 4.29.

Table 4.29: Step one- business strategies and firm performance

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.636[a]	.404	.390	.71002

a. Predictors: (Constant), Information Technology, Differentiation and market focus

b. Dependent Variable: Performance

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.363	3	14.121	28.010	.000[b]
	Residual	62.512	124	.504		
	Total	104.875	127			

a. Dependent Variable: Performance

b. Predictors: (Constant), Information technology, Customer focus, Differentiation strategy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.430	.382		1.125	.263
	Information technology	.405	.082	.380	4.954	.000
	Customer focus	.311	.084	.286	3.723	.000
	Differentiation strategy	.147	.063	.172	2.342	.021

a. Dependent Variable: Perf7

The results in Table 4.29 show that business strategies explain 40.4 % of the variation in firm performance (R^2 =.404). The results indicate that the overall model is statistically significant at 95% level of confidence. The first step implies that the relationship between business strategies and firm performance is positive and statistically significant. The ANOVA results in Table 4.29 show a p-value of 0.000 which is less than 0.05 indicating that the model is statistically significant in explaining the impact of the independent variables on the dependent variable.

In the second step, a regression analysis to assess the relationship between business strategies and innovation process was conducted. In this step, business strategies were treated as the independent variable and innovation process as the dependent variable. The results are summarized in Table 4.30.

Table 4.30: Regression Results- Business Strategies, innovation process and Firm Performance

Step 2 - Regression Results of business strategies and innovation process

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.371[a]	.138	.122	.96355

a. Predictors: (Constant), Information technology, Customer focus, Differentiation strategy

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25.059	3	8.353	8.997	.000[b]
	Residual	156.906	169	.928		
	Total	181.965	172			

a. Dependent Variable: Performance

b. Predictors: (Constant), Information technology, Customer focus, Differentiation strategy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.397	.356		9.530	.000
	Information technology	.162	.078	.151	2.079	.039
	Customer focus	.194	.054	.262	3.603	.000
	Differentiation strategy	-.238	.062	-.285	-3.870	.000

a. Dependent Variable: Performance

The results in Table 4.30 portray that business strategies explains 13.8 percent of the variation in innovation process (R^2 = 0.138). The overall model results reveal that the relationship among business strategies and innovation process is statistically significant at p-value = 0.05 (F = 8.997, p-value=.000). This indicates business strategies predicts innovation process outcome of the manufacturing firms. The beta coefficients also indicate that statistically significant linear relationship between innovation process and business strategies Information technology (ß=.315, p=.000), Customer focus (ß=.194, p=.000) and differentiation strategies (ß=-.238, p=.000). The ANOVA results in Table 4.27 show a p-value of 0.000 which is less than 0.05 indicating that the model is statistically significant in explaining the impact of the independent variables on the dependent variable.

The third step of the test for the mediating effect of innovation process on the relationship between business strategies and firm performance involved testing for the influence of business strategies on firm performance while controlling for innovation process. The results for the two steps are presented in Table 4.231.

Table 4.31: Step 3 Regression Results for the mediation effect of innovation process on the relationship between business strategies and firm performance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.431[a]	.186	.167	.93371

a. Predictors: (Constant), Innovation process, Information technology, Customer focus

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33.502	4	8.375	9.607	.000[b]
	Residual	146.464	168	.872		
	Total	179.965	172			

a. Dependent Variable: Performance

b. Predictors: (Constant), Innovation process, Information technology, Customer focus, Differentiation strategy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.069	.437		2.447	.015
	Information technology	.118	.076	.118	1.552	.123
	Customer focus	.095	.072	.100	1.323	.188
	Differentiation strategy	.031	.078	.036	.390	.697
	Innovation Process	.242	.070	.250	3.454	.001

a. Dependent Variable: Performance

At step three, innovation process significantly influences firm performance, here business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) and innovation process are entered as predictors.

The results in Table 4.31 portray that business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) and innovation process explains 18.6 percent of the variation in firm performance (R^2 = 0.216). The overall model results reveal that

the relationship is statistically significant at 95 percent level of significance (F = 9.607, p-value = .000). According to Baron and Kenny (1986) complete mediation is present when the independent variable no longer influences the dependent variable after the mediator has been controlled. Partial mediation occurs when the independent variable's influence on the dependent variable is reduced after the mediator is controlled. The results in Table 4.31 shows that business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) did not significantly influence the performance of manufacturing firms in Kenya. The study therefore concludes that innovation process completely mediated the relationship between business strategies and firm performance of manufacturing firms in Kenya.

4.10.3 Business strategies, Government policies and firm performance - Moderation Analysis

The third objective of the study was to establish the moderating influence of government policies on the relationship between business strategies and performance of manufacturing firms in Kenya. As underscored by Baron and Kenny (1986), to assess the moderating effect, the study applied hierarchical regression method. Baron and Kenny (1986) defined a moderator as a variable that affects the direction and or strength of the relationship between a predictor and a criterion variable. They posit that moderation can only be supported if path C (which is the interaction of paths A and B) is significant. The hypothesis is stated thus;

> *Ho: Government policies have no significant moderating influence on the relationship between business strategies and performance of manufacturing firms in Kenya.*

To test for the moderation effect, a hierarchical regression analysis was conducted by first using the following two steps. Step one, tested the influence of business strategies and firm performance. Step two tested the influence of government policies on firm performance. Then in step three, the interaction term was introduced in the equation and its significance evaluated when controlling for business strategies and firm performance. The interaction term was computed as the product of the standardized scores of business strategies and government policies. To confirm moderation, the influence of the interaction term should be significant. The significance of the predictor variable and the moderator variable is not mostly relevant in determining moderation (Yzerbyt, Muller, Batailler, & Judd, 2018).

The relationship was depicted in Figure 4.3.

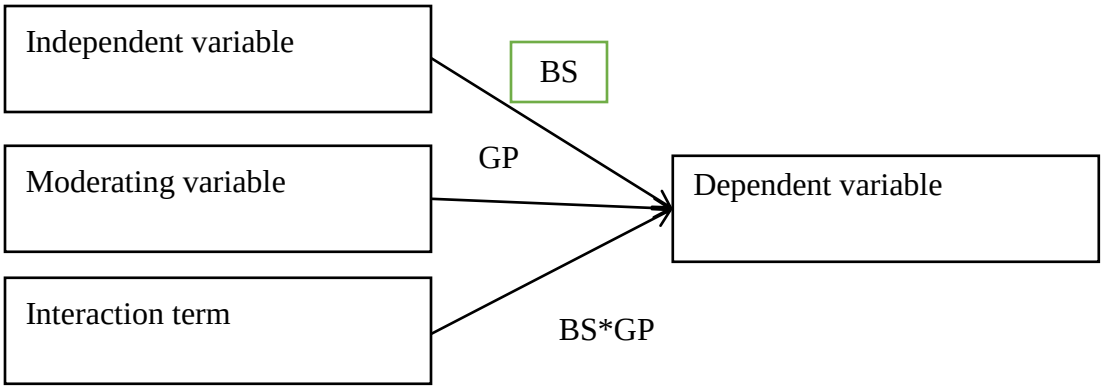


Figure 4.3: Test of moderation – path diagram for direct and indirect effects

Figure 4.3 illustrates that each arrow in the path represents a causal relationship between two variables to which are assigned the change statistics (R^2 and F ratio). This shows direction and magnitude of the effect of one variable on the other. Using hierarchical regression analysis, both direct and indirect causalities were determined by first regressing business strategies on firm performance (FP) for the direct causality. The same procedure was repeated with the inclusion of government policies (GP) where the indirect causality was determined.

Table 4.32: Regression Results of the Moderation effect

Goodness of Fit

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.434[a]	.188	.183	4.76896
2	.434[b]	.188	.179	4.78214
3	.458[b]	.210	.196	4.73323

Model 1: Predictors: (Constant), Business Strategies
Model 2: Predictors: (Constant), Business strategies, government Policies
Model 3: Predictors: (Constant), Business Strategies, government Policies, Business strategies* government Policies

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	901.500	1	901.500	39.639	.000[b]
	Residual	3889.055	171	22.743		
	Total	4790.555	172			
2	Regression	902.847	2	451.424	19.740	.000[c]
	Residual	3887.708	170	22.869		
	Total	4790.555	172			
3	Regression	1004.368	3	334.789	14.944	.000[c]
	Residual	3786.187	169	22.403		
	Total	4790.555	172			

a. Dependent Variable: Firm Performance
b. Predictors: (Constant), Business strategies
c. Predictors: (Constant), Business Strategies, government Policies

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.735	.635		2.734	.007
	Information technology	-.148	-.148	-.148	-.148	-.148
	Customer focus	.081	.081	.081	.081	.081
	Differentiation strategy	-.152	-.152	-.152	-.152	-.152
2	(Constant)	15.687	2.473		6.342	.000
	Information technology	.283	.052	.425	5.457	.000
	Customer focus	.677	.334	.150	2.028	.044
	Differentiation strategy	1.123	.492	.197	2.284	.024
	Government Policies	.217	.080	.212	2.729	.007
3	(Constant)	.190	.077	.174	2.468	.015
	Information technology	.238	.095	.241	2.519	.013
	Customer focus	.325	.112	.330	2.905	.004
	Differentiation strategy	.109	.094	.112	1.165	.246
	Govtpolicies*Information technology	.195	.097	.174	2.014	.046
	Govtpolicies*Customer focus	.267	.125	.217	2.131	.035
	Govtpolicies*Differentiation strategy	.288	.089	.267	3.242	.001

a. Dependent Variable: Firm Performance

As shown in Table 4.32, the effect of business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) and government policies on firm performance were both positive and statistically significant ($p<0.05$). The change in R^2 due to the interaction term was 0.022 (0.210-0.188) and the interaction terms were statistically significant ($p < 0.05$).

This shows that government policies have a positive influence on the relationship between business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) and firm performance (p – value <0.05. Moreover, since absolute value of the t-value (t=2.129) is less than the critical value (t = 1.962) the researcher rejected the null hypothesis. Therefore, it was established that government policies have a significant moderating effect on the relationship between business strategies (Innovation process, Information technology, Customer focus, Differentiation strategy) and performance of manufacturing firms on Kenya.
The resultant single moderation regression equation is:

***FP = 1.190 + 0.*238IT + 0.325CF + *0.*109 DS + *0.*195GP*IT - 0.267GP*CF + 0.288GP*DS**

Where: FP = Firm performance, IT = Information technology, CF = Customer focus, DF = Differentiation strategies, GP*IT = Govtpolicies*Information technology, GP*CF = Govtpolicies*Customer focus, and GP*DF = Govtpolicies*differentiation strategies

4.10.4 Business Strategies, Innovation Process, Government policies, and Firm performance (Joint Effect)

The first step involved testing the influence of business strategies on performance of manufacturing firms in Kenya.

Step 1: Influence of Business Strategies on Performance of Manufacturing firms

The study sought to assess the Business Strategies on Performance of Manufacturing firms. Structural models in structural equation modeling (SEM) were applied (Babin & Svensson, 2012). Prior to structural models, exploratory factor analysis was conducted to determine whether business strategies indicators had significant factor loadings (Zikmund et al., 2010). Factors with loadings of 0.4 and above were considered appropriate (Hair et al., 2010). The results in Table 4.33 show that the factor loadings of all business strategies indicators ranged

from 0.614 and 0.681 suggesting high convergent validity. Hence, in further analysis the study employed the three indicators of business strategies.

Table 4.33: Factor Loadings for Business Strategies

		Factor loadings
BS5	Investing in information technology increases firms' return on investment	.614
BS6	Your organization values customers through delivery of quality products and services	.680
BS11	Your firm offers unique products/services	.681

Model Fit Tests Results of Business Strategies

In order to assess whether the model provided adequate fit for the data, the study considered both absolute fit indices and incremental fit indices (Hair et al., 2010). These fit indexes were used to verify that the model was adequate (Browne & Cudeck, 2003). Table 4.31 shows RMSEA of 0.003, GFI of .960, AGFI of .894 and CFI index of .890. This shows an excellent model fit (Yuan & Hayashi, 2010).

Table 4.34: Model Fit Tests Results of Business Strategies

Model	RMSEA	GFI	AGFI	CFI
Default model	.003	.960	.894	.890
Independence model	.236	.748	.647	.000

Convergent Validity of Business Strategies

Regression weights were used to test the contribution of each business strategies indicators to construct variable (Business strategies). Regression weights were also used to explain the nature of the relationship since all the variables were in the same measurement scale. Table 4.35 shows that all the regression weights were higher than the acceptable level of -1.96 or 1.96 at 0.05 level of significance. The t-calc values (critical ratio; C.R) for all the business strategies indicators were higher than -1.96 or 1.96 (Critical Ratio >-1.96 at 0.05 significance level ($p<0.05$).

Overall the results shows that relationship between Business strategies and performance is positive and significant (Estimate = .513, C.R= 2.754, p-value =0.006). This implies that an increase in business strategies by 1 unit lead to an increase in performance by .513 units.

T-statistics provided information on the significance of the relationship. T-statistics value (C.R) was used to test whether the relationship between was significant. Critical value should be less than-1.96 or greater than 1.96 at 0.05 significance level. Table 4.35 shows a t-calc value of 2.754 (C.R<1.96). The results show that there was a significant positive relationship between business strategies and performance since the C.R of 2.754 is greater than the conventional critical value of 1.96 at 0.05 significance level (p<0.05).

Table 4.35: Regression Weight and CR Values for Business Strategies

			Estimate	S.E.	C.R.	P	Label
Perf	<---	Bstr	.513	.186	2.754	.006	
BS5	<---	Bstr	.436	.131	3.320	***	
BS6	<---	Bstr	1.196	.271	4.409	***	
BS11	<---	Bstr	.858	.192	4.477	***	

Hypothesis Testing of Business Strategies

The study sought to assess the influence of business strategies on performance of manufacturing firms in Kenya. The structural Equation Modeling (SEM) for the model 1 is as shown in Figure 4.4. Path coefficients were used to determine the direction and strength of the factor. The figure shows a path coefficient beta value of .51 (β= .51).This implies that for every 1 unit increase in business strategies, performance is predicted to increase by .51 units.

R^2 was used to show the proportion of variation in dependent variable explained by the SEM model. The figure also shows that business strategies had a coefficient R^2 mean of .72. The R^2 value of .72 indicates that 72% of the variations in performance of manufacturing firms in Kenya can be accounted for by business strategies scores.

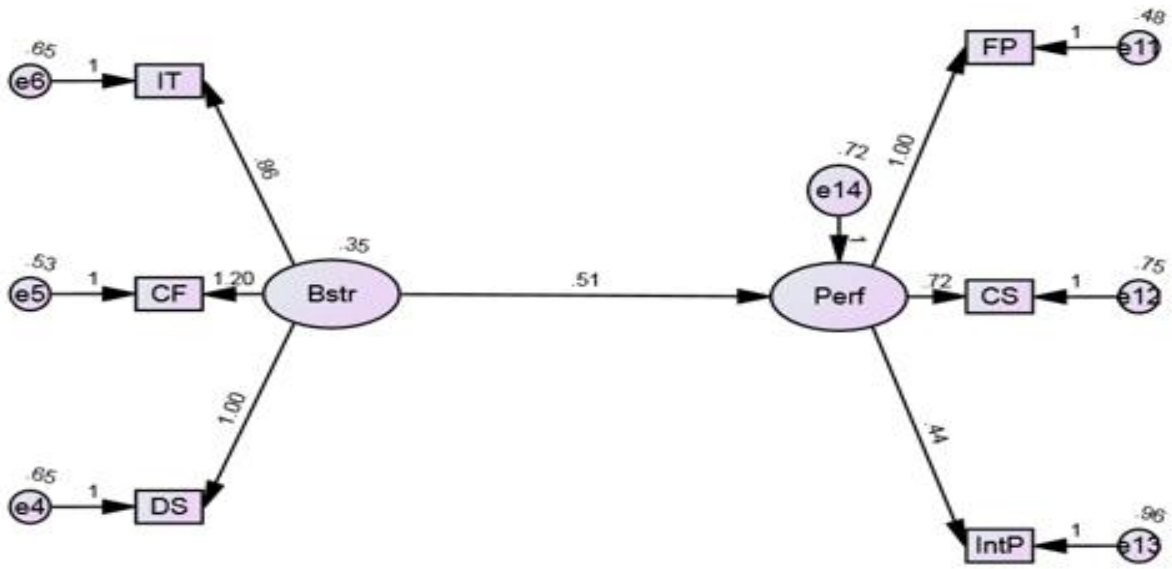


Figure 4.4: Structural Equation Modeling (SEM) for Business strategies and performance

Step II: The second step involved testing the joint effect of business strategies, government policies and innovation processes on performance of manufacturing firms in Kenya.

Convergent Validity of Study Variables

Regression weights were used to test the joint effect of explanatory variables on performance of manufacturing firms in Kenya. Regression weights were also used to explain the nature of the relationship that is, direction and strength of the factor since all the variables were in the same measurement scale.

Table 4.36 shows that all the regression weights (t-calc values or C.R) were higher than the acceptable level of -1.96 or 1.96 at 0.5 significance level. P values for all the variables were less than the conventional p value of 0.05. This implies that all the explanatory variables were significantly related to performance and thus the results verified the convergent validity of explanatory variable constructs.

Table 4.36: Regression Weight and C.R Values for Explanatory Variables

			Estimate	S.E.	C.R.	P	Label
BS*GP	<---	BS	.270	.081	3.352	***	
BS*GP	<---	IP*GB*BS	.145	.063	2.296	.022	
PER	<---	BS	.489	.073	6.689	***	
PER	<---	BS*GP	-.011	-.005	-2.047	.008	
PER	<---	GP	.021	.009	2.278	.011	
PER	<---	IP	.170	.082	2.074	.038	
PER	<---	IP*GB*BS	-.073	.035	-2.098	.009	

Key: BS = Business Strategies; IP = Innovation strategies; GP = Government Policies; PER = Performance

Model 2 shows the results after Government policies, Innovation process, BS*GP were introduced in the equation. Path coefficients were used to determine the direction and strength of the factor. The figure shows a path coefficient beta value of $\beta = 0.489$ Business strategies, $\beta = .021$ Government policies, $\beta = .170$ Innovation process, $\beta = BS*GP*IP$.

This implies that for every 1 unit increase in business strategies performance of manufacturing firms is predicted to increase by .489 units, for every 1 unit increase in government policies, performance of manufacturing firms is predicted to increase by .021 units, for every 1 unit increase in innovation policies performance of manufacturing firms is predicted to increase by .170 units, for every 1 unit increase in (BS*GP) the interaction term denoting the moderating variable, performance of manufacturing firms is predicted to decrease by -.011 units and lastly, for every 1 unit increase in (BS*GP*IP) the interaction term denoting the mediating variable, performance of manufacturing firms is predicted to decrease by -.073 units.

R^2 was used to test how well the models fitted the data. R^2 was used to show the proportion of variation in dependent variable explained by the SEM model. Figure 4.5 indicated goodness of fit for the regression between the predictor variables and the outcome variable (performance). Figure 4.4 Model 2, shows that there was a very strong relationship between independent variables and performance (R^2=.96). An R^2 value of .96 indicate that 96% of the variations in performance were explained by the SEM model. There was also change in R squared from $R^2 = 0.72$ in Model 1 to $R^2 = 0.96$ in Model 2 indicting an increase in variation.

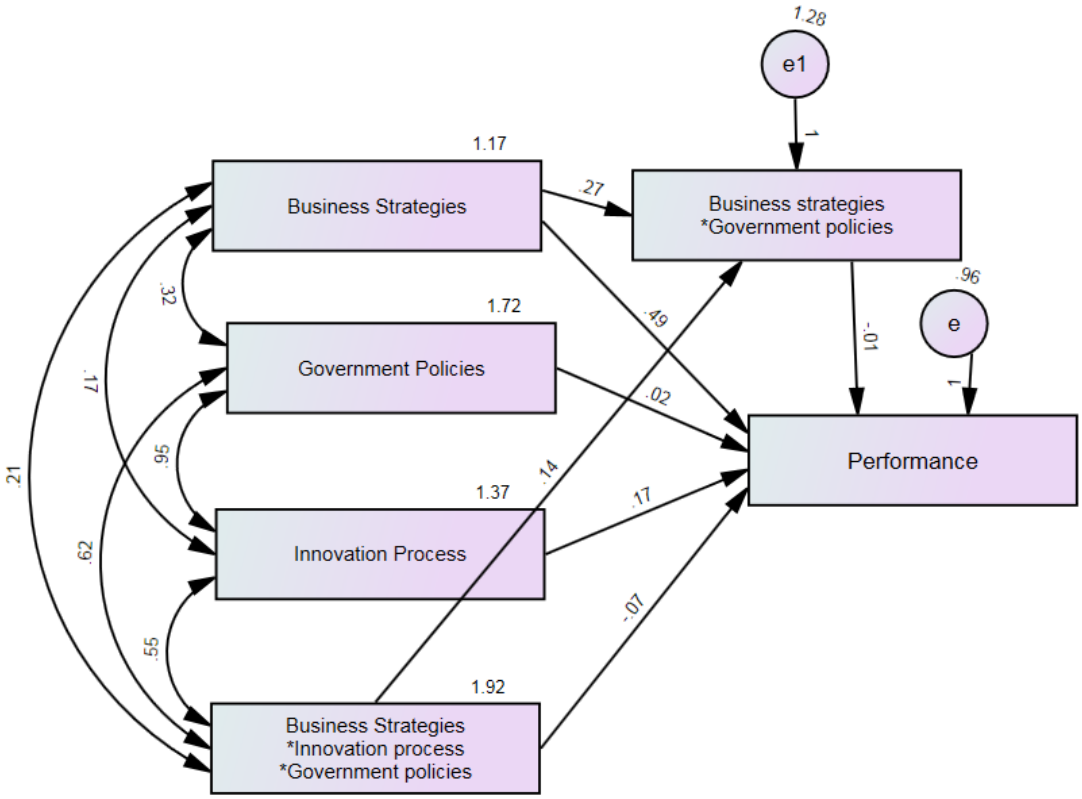


Figure 4.5: Structural Equation Model (SEM) Joint Effect

T-statistics provided information on the significance of the relationship between variables. An overall t-statistics value (C.R) was used to test whether the relationship between explanatory variables and performance was significant. Critical value should be less than -1.96 or greater than 1.96 at 0.05 significance level ($p<0.05$).

Table 4.37 shows that the t-calc values (critical ratio; C.R) for all the variables were less than -1.96 or greater than 1.96. The p-values for all the explanatory variables were less than 0.05. This means that the relationship between explanatory variables and performance was significant. Therefore the null hypothesis that there is no joint effect of business strategies, government policies and innovation processes on performance of manufacturing firms in Kenya was rejected at 95 percent significant level. The study therefore accepts alternative hypothesis and conclude that there exist a significant joint effect of business strategies, government policies and innovation processes on performance of manufacturing firms in Kenya.

Table 4.37: Overall T-Statistics Values

			Estimate	S.E.	C.R.	P	Conclusion
BS	<-->	GP	.317	.111	2.859	.004	Significant
GP	<-->	IP	.946	.138	6.872	***	Significant
BS	<-->	IP	.169	.098	1.736	.083	Significant
IP	<-->	IP*GP*BS	.550	.131	4.210	***	Significant
GP	<-->	IP*GP*BS	.624	.146	4.258	***	Significant
BS	<-->	IP*GP*BS	.212	.115	1.835	.067	Significant

CHAPTER FIVE
FINDINGS AND DISCUSSION

5.1 Introduction

This chapter presents discussions of the various tests carried out on the study. The literature and the findings are compared and the conclusions of the same explained. The discussion comprises the relationship between business strategies and firm performance; business strategies, government policies and firm performance; business strategies, innovation process and firm performance; and finally, the combined relationship of business strategies, government policies, innovation process and firm performance.

5.2 Business Strategies and Firm Performance

Regarding the individual constructs of business strategies influence on firm performance. Key assumption behind a differentiation strategy is that customers are willing to pay a higher price for a product that is distinct (or at least perceived as such) in some important way. Superior value is created because the product is of higher quality, is technically superior in some way, comes with superior service, or has a special appeal in some perceived way. Regression analysis results indicated that differentiation strategy affected firm performance ($\beta = 0.517$; P-value < 0.05).

The findings concur with Atikiya et al. (2015) findings that revealed that manufacturing firms in Kenya were positively significantly influenced by differentiation. The study further revealed that manufacturing firms adopt a differentiation strategy to increase their competitiveness and performance. In support of the findings Inkpen and Choudhury (2015) argued that in effect, differentiation builds competitive advantage by making customers more loyal-and less price-sensitive-to a given firm's product. Additionally, consumers are less likely to search for other alternative products once they are satisfied. A major advantage behind differentiation is that customers of differentiated products are less sensitive to prices. In practical this attitude means that firms may be able to pass along price increases to their customers.

The results also confirmed that market focus strategy affected firm performance ($\beta = 0.452$; P-value < 0.05). The findings concur with Atikiya et al. (2015) findings that revealed that manufacturing firms in Kenya were positively significantly influenced by market focus. The study further revealed that manufacturing firms adopt a market focus strategy to increase their competitiveness and performance. In support of the findings Steven, Schulz and Flanigan (2016)

argued that market focus strategies enhances achievement of competitive advantage since firms aim at serving a specific and typically small niche. These niches could be a particular buyer group, a narrow segment of a given product line, a geographic or regional market, or a niche with distinctive, special tastes and preference.

Information technology was also confirmed to affect firm performance of the large firms in the manufacturing industry in Kenya ($\beta = 0.246$; P-value < 0.05).

The findings concur with Wang (2019) findings that revealed that manufacturing firms in Kenya were positively significantly influenced by market focus. In support of the findings, Daniel (2015) indicated that technologically advanced products offer a natural route to pursue differentiation. This kind of differentiation enhances new features that convey a sense of quality that enables firms to distinguish themselves from competitors. Christos (2015) confirms that innovation accelerates new product development and makes an organization to stay in touch with customer's needs and market trends.

The first objective of this study was to establish the influence of business strategies on firm performance. The objective had a corresponding null hypothesis which stated that business strategies have no significant influence on the performance of manufacturing firms in Kenya. To achieve this objective, corresponding hypothesis test was conducted to determine the percentage of variation in the firm performance. The first test was performed and the results confirmed the first hypothesis that business strategies have a significant influence on the performance of manufacturing firms in Kenya.

The results of this study indicate that there was a variation of 18.3% with F value of 39.639 and significance level p value 0.000. Thus, since $p<0.05$, it is clear that business strategies have significant influence on firm performance. The study findings are in line with Norton (2005), findings that companies build, maintain, and exploit various business strategies, such as integration of technology and seamlessly focusing on the customer preferences and expectations.

Notably, with an average mean of 3.85, with use of technology to reduce the average cost of was rated as an important business strategy with the investment in technology to increase delivery of quality emerging as the highest rated with a mean of 4.15, and 'organization charging low prices

compared to competitors' being the lowest rated among the differentiation approach. Similarly, majority of respondents agreed that information technology increases the competitive nature of organizations, investment in technology increases delivery of quality services, investment in technology enables firms to achieve price reduction, investing in information technology increases firms' return on investment. The respondents also agreed that their firms met tastes and preferences of customers and offered unique products/services. The findings concurred with Murphy and Carmody (2015) findings that fusion of technology enhances firms to achieve superior performance. Evidently, this finding accentuates the need for firms to leverage information technology since it is a fundamental strategy for attaining competitive edge, which is realized through increasing customers' value, quality improvement, and reduction in the cost.

The findings are in line with Olson et al. (2018) posit that no matter how super a strategy is, it has to be well implemented to achieve the desired results. The authors believe that effective implementation of strategy is very important to organization's ability to achieve and maintain competitive advantage over other organizations. They also found a positive relationship between strategy and corporate performance. However, Ajagbe (2007) argued that without a clearly defined strategy, a business will have no sustainable basis for creating and maintaining a competitive advantage in the industry where it operates. There are also opinion that effective strategy planning and implementation has positive contribution to the over-all performance of organizations.

Long et al. (2013a) supported that when the strategies have been cascaded down to the operational level for delivery by the organization's workforce where their execution is critical, they are seamlessly flown and aligned into high performance. Pryol et al. (2007) stressed that effective performance should begin with a clear understanding of the organization's strategic process. They added that organizational performance is a critical success factor for a flawless implementation of strategy. This implementation is achieved by linking the organization's strategic goals and objectives with its budget and operational systems in order to achieve organizational efficiency, effectiveness and accountability.

5.3 Business Strategies, Innovation Process and Firm Performance

The second objective of the study was to establish the mediating effect of innovation process on the relationship between business strategies and performance of manufacturing firms in Kenya. The study shows that innovation process has significant influence on the relationship between business strategies and performance of manufacturing firms in Kenya. The results of the study revealed that innovation process incrementally explained firm performance by 23% over and above the effect of business strategies. The intervening influence change in F ratio had a p value of 0.000, since the calculated p-value for the change was less than 0.05; it meant that the effect was statistically significant. These findings are consistent with Camison and Villar-López (2014) results that noted that adoption of innovation strategy forms basis for increasing their performance. Also Kiraka et al. (2013) found that product innovation is achieved by exploiting new business strategies and/or processes. Innovation leads to enhancement of the quality of products that result to the business-performing better as well as gaining.

This study results has highly been supported by various scholars of innovation. According to Birkinshaw et al (2004); Bugelman et al (2004); and Daniels (2004), in recent time's interest has been shown not only on steady process innovations but also on discontinuous and disruptive ones (Bessant 2008 and Cooper 2011). Bessant et al (2006) are of the opinion that successful organizations are those that generally undertake evolutionary changes in their processes. Process innovation can be intended to decrease unit costs of production or delivery, to decrease price and increase quality or to produce or deliver new or significantly improved products. If properly implemented, process innovations help in reducing mistakes, and increase speed requiring less employees to complete the work, thus greater efficiencies and improved customer and employee satisfaction (Roberts, 2007).

Hernandez, Cooper, Tether and Murphy (2017) is also in support of the findings, they suggested that organizations adopt different approaches to innovation; however, the result of innovation is the use of new business strategies in the production of new and unique products, which are required to drive the market demand. On the same breadth, Hernandez et al. (2017) posited that technological innovation, which is a dimension of business strategy, should enable firms to put in place unique and working administrative systems, firm structures, and novel programs with a view to realizing competitive advantage. To this end, one can posit that, strategic innovation is

one of the firm factors, which are essential in changing how organizations operate in terms of business strategy to enhance performance.

Zahra and Covin (1993) presented a study of the relationships among select business strategy dimensions, technology policy dimensions, and firm performance. The research sought to identify how these variables interrelate at the bivariate and multivariate levels. Data were collected from 103 manufacturing-based firms representing 28 mature industries. Results showed that technology policy choices vary widely across firms with different business strategies, and that business strategy affected the strength of the relationship between firm performance and particular technology policies.

Oh, Cho, and Kim (2015); Tidd and Bessant (2014); and Xu (2011) remarked that business strategies and innovation leads to improved performance through new business models that provide more value to customers. Karabulut (2015) studied the influence of business strategies and innovation on firm performance among manufacturing companies in Turkey and found a significant positive relationship. Furthermore, Lilly and Juma (2014) investigated the influence of strategic innovation on firm performance among commercial banks in Kenya. They discovered a significant positive association between strategic innovation and performance among the study population. Similarly, Kalay and Lynn (2015) studied the influence of strategic innovation on performance among manufacturing companies in Turkey and found a positive relationship.

5.4 Business Strategies, Government Policies and Firm Performance

The third objective of the study was to establish the moderating effect of government policies on the relationship between business strategies and performance of manufacturing firms in Kenya. The study reveals that government policies positively moderate the relationship between business strategies and performance of manufacturing firms in Kenya (p-value < 0.05). The findings concur with Murphy and Carmody (2015), that a combination of business strategies and innovation within the moderating confines of government policies influences the performance of firms. Government policies that support technological transfers to their firms through market liberalization enable those firms to use their resource and dynamic capabilities as a basis of enhancing their performance. Evidently, the interrelationships among the four variables of the

study have high internal validity, that is, the predictor variable (business strategies) is strongly moderated and mediated by government policies and innovation processes respectively to influence the outcome variable (performance of manufacturing firms).

Further, the findings have revealed that profitability reduces because of increased taxation (Mean = 3.88), compliance to safety guidelines enhances safety to processes and products (Mean = 3.73) and that industry standards enhances quality of products (Mean = 3.59).

This supports the findings of Vu Van, and Bartolacci (2017) that the value of government policies is to support financial performance of manufacturing sector because the innovation and business strategies are at the firm level. The author argues that government support, such as export promotion, human resource training and technology programmes have insignificant linkages with firm financial performance, but financial supports play an important role, suggesting that supporting measures as tax exemptions, soft loans and investment incentives promote financial efficiency and are vital for the development of private firms. Accordingly, it is judicious to state that government policies only moderate the capability of firms to exploit their internal processes, that is, business strategies and innovative processes, as a basis of enhancing their performance.

5.5 Business Strategies, Innovation Process, Government Policies and Firm Performance

The fourth objective of this study was to determine the joint influence of business strategies, innovation process, and government policies on performance of manufacturing firms in Kenya. Hypothesis four was stated as H_o: There is no joint influence of business strategies, innovation process, and government policies on performance of manufacturing firms in Kenya. The results from the joint effect was found to be statistically significant, as the findings indicate that 96.0% variation in firm performance was explained by joint effect of business strategies, innovation process, government policies, mediating variable [innovation process* government policies*business strategies] and moderation variable [government policies*business strategies] (R^2 = 0.96), and business strategies explained 72% (R^2 = 0.72). The findings confirmed the fourth objective thereby rejecting hypothesis four (Ho_4) that there was a significant combined influence of business strategies, innovation process, and government policies on performance of manufacturing firms in Kenya.

The findings are in line with Vu Van, and Bartolacci (2017) findings that the value of government policies is to support financial performance of manufacturing sector because the innovation and business strategies are at the firm level. The author argues that government support, such as export promotion, human resource training and technology programmes have insignificant linkages with firm financial performance, but financial supports play an important role, suggesting that supporting measures as tax exemptions, soft loans and investment incentives promote financial efficiency and are vital for the development of private firms. Accordingly, it is judicious to state that government policies only moderate the capability of firms to exploit their internal processes, that is, business strategies and innovative processes, as a basis of enhancing their performance.

In support of the study, Karlsson and Tavassoli (2015) found that firms that choose and afforded to have a complex innovation strategy were better off in terms of their future productivity in comparison with both those firms that chose not to innovative (base group) and those firms that chose simple innovation strategies. Moreover, not all types of complex innovation strategies affected the future productivity significantly; rather, there are only few of them.

CHAPTER SIX
SUMMARY AND CONCLUSION

6.1 Introduction

This chapter presents a summary of the study and its findings and the conclusions based on the study objectives.

6.2 Summary

The general objective of the study was to examine the influence of business strategies, government policies and firm innovation on the performance of manufacturing firms in Kenya. Specifically the study sought to determine the influence of business strategies on performance manufacturing firms in Kenya, to establish the moderating effect of government policies on the relationship between business strategies and performance of manufacturing firms in Kenya, to assess the effect of innovation processes on the relationship between business strategies and performance of manufacturing firms in Kenya and lastly to determine the joint effect of business strategies, government policies and innovation on performance of manufacturing firms in Kenya.

The study relied on theoretical and empirical studies on business strategies, government policies, firm innovation and performance and consequently developed a conceptual framework on the relationship between the predictors and the dependent variable. The hypothesized relationships were then tested empirically. The target population was the 903 firms registered with Kenya Association of Manufacturers from which a sample of 269 firms was arrived at using Fischer's formula and stratified sampling technique.

6.2.1 Influence of Business Strategies on Performance Manufacturing Firms in Kenya

The findings indicate that factor analysis was done in order to reduce business strategies items to practicable and meaningful size, where all the items met the threshold of 0.4 and above. Descriptive statistics was used to analyze this research objective and other subsequent analysis was done. The results showed the average mean was 3.85 this meant that most of the respondents strongly agreed with statements related to business strategies in their respective organizations. The of technology to reduce the average cost of was rated as an important business strategy with the investment in technology to increase delivery of quality emerging as the highest rated with a

mean of 4.15, and 'organization charging low prices compared to competitors' being the lowest rated among the differentiation approach.

Correlation analysis was carried out, the results indicated that business strategies and firm performance was positively correlated. After carrying out regression analysis, the research indicated that 18.8% was the goodness of fit for business strategies. This meant that 18.8% explained the variation in firm performance in manufacturing industry in Kenya. The null hypothesis stated that business strategies have no significant effect on organizational performance of manufacturing firms in Kenya was rejected at 95% level of confidence and the study confirmed that business strategies significantly affect the performance of manufacturing firms in Kenya.

6.2.2 Business Strategies, Innovation Process and Firm Performance

The study established that innovation process had a significant influence on the relationship between business strategies and performance of manufacturing firms in Kenya, business strategies, added significantly to the firm performance as the variation increased from 0.188 to 0.216 (R^2 change = 0.32 p-value = 0.000). The results reveal that the variance explained by innovation process is significant (F=23.370, p-value=.000).

The null hypothesis stated that innovation process have no significant effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya was rejected at 95% level of confidence and the study confirmed that innovation processes have a significant effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.

6.2.3 Business Strategies, Government Policies and Firm Performance

The study established that government policies had a significant moderating influence on the relationship between business strategies and performance of manufacturing firms in Kenya. The effect of business strategies and government policies on firm performance were both positive and statistically significant ($p<0.05$). The change in R^2 due to the interaction term was 0.022 (0.210-0.188) and the interaction term was statistically significant ($p < 0.05$). This shows that government policies had a positive influence on the relationship between business strategies and

firm performance (p – value > 0.05. Moreover, since absolute value of the t-value (t=2.129) is less than the critical value (t = 1.962).

The null hypothesis that stated that government policies have no significant effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya was rejected at 95% level of confidence and the study confirmed that firm government policies have a significant effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.

6.2.4 Business Strategies, Innovation Process, Government Policies and Firm Performance

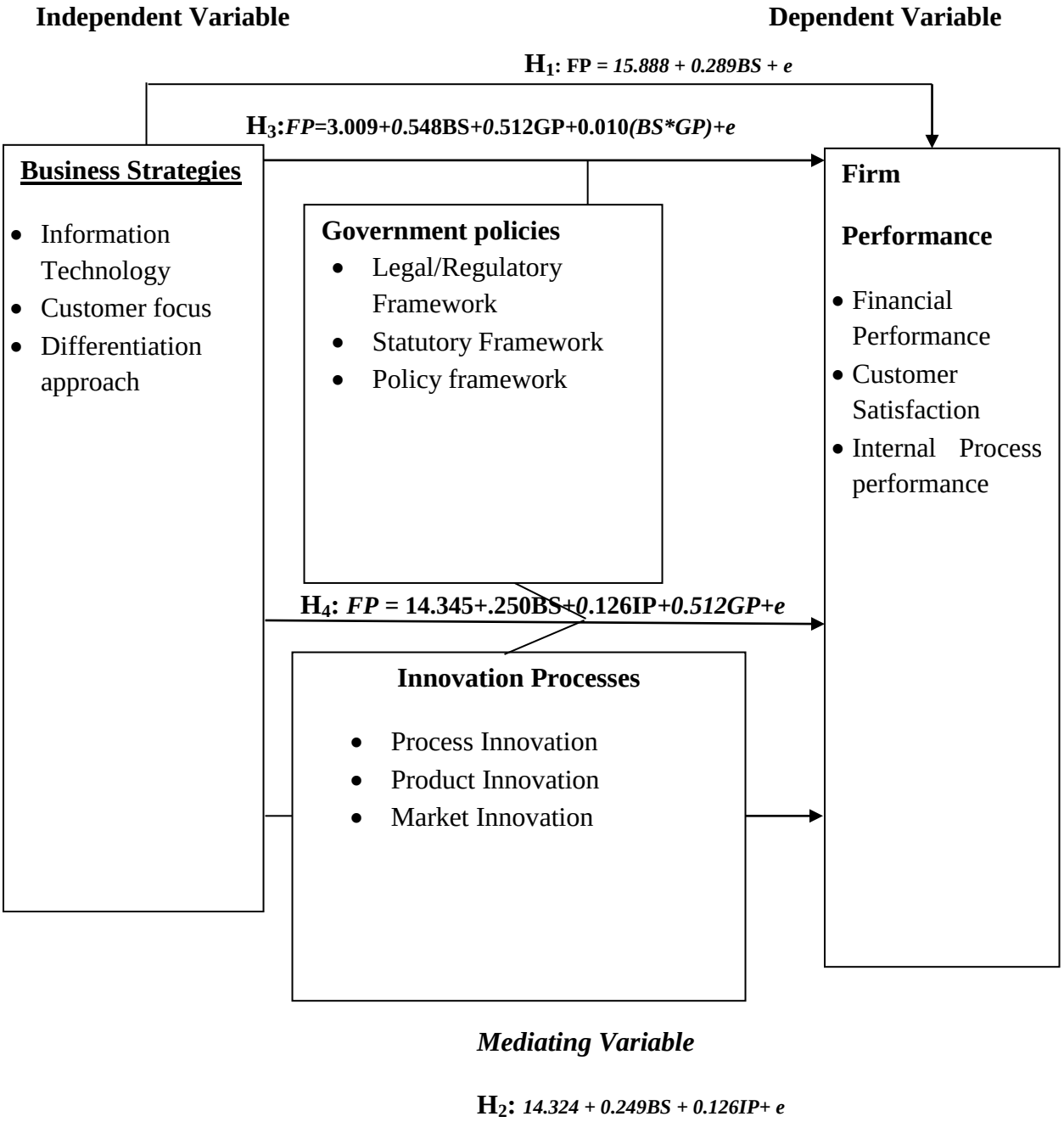
The study also established that that the joint effect of the three variables (Business Strategies, innovation process, Government Policies) influenced the performance of manufacturing firms in Kenya. The findings indicated that 18.3% variation in firm performance was explained by business strategies (Adjusted R^2 = 0.183); Business strategies and innovation process explained 20.6% (Adj. R^2 = 0.206). When an additional variable (government policies) was added, it explained 20.2 % (Adjusted R^2 = 0.202 and the P values were 0.000, 0.000, and 0.000 respectively all of which were less than 0.05 and hence statistically significant.

The null hypothesis that stated that there is no significant joint effect of business strategies, innovation processes, and government policies on the performance of manufacturing firms in Kenya was rejected. The study confirmed that there is a significant joint effect of business strategies, innovation processes, and government policies on the performance of manufacturing firms in Kenya.

Table 6. 1: Summary of Test of Hypotheses

Hypotheses	Empirical Evidence	Decision
H_0 Business strategies have no significant effect on organizational performance of manufacturing firms in Kenya.	Firm performance is supported. $R^2 = 0.188$; p-value= .000	Rejected
H_0: Government policies have no significant moderating effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.	Firm performance is supported. $R^2 = 0.210$; p-value= .000	Rejected
H_0: Firm innovation processes have no significant mediating effect on the relationship between business strategies and organizational performance of manufacturing firms in Kenya.	Firm performance is supported. $R^2 = 0.216$; p-value= .000	Rejected
H_0: Business strategies, innovation processes, and government policies have no significant joint effect on organizational Performance of manufacturing firms in Kenya.	Firm performance is supported. $R^2 = 0.216$; p-value= .000	Rejected

All the four hypotheses were supported with moderate fit. The relationships between the predictor variables and the dependent variable were found to be statistically significant as graphically presented in Figure 6.1.



Key: ***BS*** = Business strategies; ***IP*** = Innovation Process; ***GP*** = Government Policies and ***FP*** = Firm Performance

Figure 6.1: Conceptual Model

6.3 Conclusion

The study concludes that business strategies influenced performance of manufacturing firms in Kenya. Also the study concludes that government policies affected the relationship between business strategies and performance of manufacturing firms in Kenya. Further, innovation process affected the relationship between business strategies and performance of manufacturing firms in Kenya. Lastly, business strategies, government policies and innovation process were found to have a joint effect on performance of manufacturing firms in Kenya.

CHAPTER SEVEN
RECOMMENDATIONS

7.1 Introduction

This chapter details policy recommendations that are derived from conclusions, where recommendations are expected to contribute to theory, policy, and practice. Policy recommendations are tailored to reflect activities that need to be undertaken, personnel responsible for implementation, implementation timelines, and strategies for monitoring and evaluation. In addition, the study details areas for further research since the current research offers important entry points in studying organizational performance.

7.2 Recommendations

The preceding data analysis and discussion on the study findings pointed at theoretical and managerial implications. These implications focus on scholarly contribution and contributions to managers and other industry players.

7.2.1 Theoretical Implications

The findings from this study expands the frontiers of knowledge, adding to the existing literature by confirming empirically, that indeed, business strategies affect performance of manufacturing firms in Kenya. It lends support to the relationship between business strategies, government policies, innovation process and firm performance. By empirically testing the extent to which business strategies are associated to innovation process and firm performance adds to academic knowledge in several ways by providing evidence pointing towards significant application of business strategies that will lead to different levels of achievement in performance of manufacturing firms. This study has confirmed the contributions by the various theories that lend support for the hypothesized relationships.

The results contribute to the strengthening of the literature by confirming the postulations of theory of business strategy, resource-based view theory, cost differentiation theory, and open innovations theory. The study has confirmed that use of technology reduces the average cost of production, investment in technology increases delivery of quality services, information technology increases the competitive nature of organizations, investing in information technology increases firms' return on investment.

7.2.2 Policy Implications

Anchoring on the study findings, the researcher finds it imperative to make few policy recommendations on areas for further research on the subject matter. The study established that there is a strong relationship between business strategies and firm performance. Policy makers in the manufacturing sector can develop policy guidelines that will encourage firms to pay crucial attention to business strategies as a way of enhancing overall performance of the firms. A new policy guideline focusing on business strategies and innovation process will help the firms adopt a customer centric culture hence improving their ratings in the global market. Most Kenyan firms have been rated poorly in global ratings due to lack of visibility. Investing in initiatives that will increase their recognition can boost their visibility hence improving on the global recognition and rankings.

Further, to strengthen the global competitiveness of the local manufacturing firms, the government and other regulatory bodies in the manufacturing sector can develop policies targeted towards firm positioning and association. The findings of the study show that profitability reduces because of increased taxation, the current policy framework increases value and quality of products and that market access policy increases performance of manufacturing firms. A policy can be developed to encourage measurement and reporting of performance along firm performance in relation to innovation process as used in this study.

7.2.3 Implications for Methodology

The results from this study provide several implications on methodology. Descriptive cross section survey applied by the study proved to be reliable, and successful in yielding credible results which can be used for generalization, replicability and predictability. Validity and reliability tests were carried out on the data collection instrument and it was found that the instrument was sufficient. Given that the tests were positive, it is an indication that the data collected was reliable and future research may consider using the same methods for data collection.

A drop and pick method was largely used to administer questionnaire to the respondents. This method yielded a high response rate which is a good indication that the method is reliable for data collection. The operationalization of the study variables got into the heart of firm

performance. The variables were disintegrated into fine and understandable meanings that were made up of day to day operations at the firms, hence making it easy for respondents to understand the question items in the questionnaire. The sampling method used in the study was also important. The study utilized regression to analyze the relationship between study variables. This tool is used widely in strategic management research and explains relationships clearly. The use of regression made it very easy to test the hypotheses that were developed to achieve the research objectives. At the end of the tests, it was very clear on how the independent, mediating and moderating variables related with the dependent variable.

7.2.4 Implication for Managerial Practice

The study established a strong positive correlation between business strategies and firm performance. The management of manufacturing firms need to recognize the critical role of business strategies in influencing the overall satisfaction of their stakeholders, which eventually leads to growth and profitability. Due to the increased competition in the manufacturing sector, firms must pursue a differentiation strategy. Firms should embrace information technology, customer focus and differentiation approach in order to improve the firm's visibility in the market. These includes but limited to: establishing a unique identity and culture; developing appealing logos, slogans and corporate colours; identifying and pursuing a clear positioning and differentiation strategy; developing and nurturing positive associations; creating brand awareness through marketing communication in order to improve brand recognition; identifying and nurturing an appealing personality characteristic for the firms among other strategies. The findings of this study can therefore be used by managers who seek to pursue business strategies (Information Technology, customer focus and differentiation approach) in order to influence firm performance. The study suggests to managers to regularly conduct an audit of their business strategies adopted in order to establish gaps that would be negatively affecting their firm performance. The study identifies three important strategies; Information Technology, customer focus and differentiation approach.

7.3 Recommendations for Further Research

There are a number of future research possibilities based on the findings of this study. As this was a cross-sectional research that studied the influence of business strategies, government policies and innovation on performance of manufacturing firms in Kenya features at a particular point in time, other studies could use longitudinal research design to track changes over time.

This study used general business strategies as its context. Further studies could concentrate on individual firm attributes such as marketing strategies, corporate culture among others. This will be important especially because different business strategies influence decision making in many different ways. Additionally, the survey used in this study was quantitative in nature. One main benefit of quantitative analysis is that hypotheses can be directly tested based on the data collected. However, a future study incorporating qualitative analysis could serve to further explore the relationship between the variables under study. In-depth interviews could allow for deeper exploration of these measures as well as their association with organization related factors such as ownership, management structure and culture.

Finally, this study focused on manufacturing firms only. The researcher strongly recommends for future study to look at the role of business strategies in influencing performance in other firms in different sectors such as Banking, telecommunication and retail.

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APPENDICES

Appendix 1: Letter of Introduction

Waruinge Muhindi
The Management University of Africa
Box 29677 - 00100
Nairobi Kenya

November 2018

To Whom It May Concern

Dear Sir/Madam,

RE: REQUEST TO PARTICIPATE IN AN ACADEMIC RESEARCH

I am a Doctor of Philosophy (PhD) student in the Management University of Africa, currently undertaking Management and Leadership research project on the **"Business Strategies, Government Policies, Innovation and Performance Manufacturing Firms in Kenya",** as a partial requirement for the award of the degree.

In order to gather the relevant data to address the research objectives and benefit from your vast knowledge/experience, your firm has been selected to form a part of this study. Subsequently, a questionnaire has been designed and is hereby attached for completion.

Kindly answer all the questions as completely as possible. The information provided will exclusively be used for academic purposes only and will be treated with utmost confidence. A copy of the final report will be provided to you upon request.

Sir/madam, forwarded for your kind consideration.

Yours faithfully,

Waruinge Muhindi

Appendix 2: Questionnaire

SECTION A: DEMOGRAPHIC INFORMATION

INDIVIDUAL DEMOGRAPHICS

1. Please state your position/Title (Tick one as appropriate)

Chief Executive Officer [ ]

General Manager/Functional Head [ ]

Head of Department [ ]

2. Indicate the complete number of years you have worked for this organization (Tick one as appropriate)

Less than 1 year [ ] 1-5 years [ ] 6-10 years [ ] 11-15 years [ ] Over 16 years [ ]

ORGANIZATIONAL DEMOGRAPHICS

3. Complete years of operation in Kenya (Tick one as appropriate

Up to 10 years [ ] 11-20 years [ ] 21-30 years [ ] 31-40 years [ ] above 40 years [ ]

4. Ownership structure (Tick one as appropriate)

Local/private [ ]

Local/state [ ]

Local/private/state [ ]

Local and Foreign [ ]

Foreign only [ ]

Other [ ]

5. Number of employees (Tick one as appropriate)

Up to 100 [ ] 101-200 [ ] 201-300 [ ] 301-400 [ ] Above 400 [ ]

6. Scope of operation (Tick one as appropriate)

National	[ ]	Regional	[ ]	International [ ]

SECTION B: BUSINESS STRATEGIES (BS)

The following statements describe the influence of Business strategies on performance of your organization. In a scale of 1-5 indicate the extent to which these statements apply to your organization **(Where 1 is "Strongly disagree", 2 is "Disagree", 3 is "Neutral", 4 is "Agree", 5 is "Strongly agree").**Tick one as appropriate

		1	2	3	4	5
	Information Technology					
BS1	Use of technology reduces the average cost of production					
BS2	Information technology increases the competitive nature of organizations					
BS3	Investment in technology increases delivery of quality services					
BS4	Investment in technology enables firms to achieve price reduction					
BS5	Investing in information technology increases firms' return on investment					
	Customer focus					
BS6	Your organization values customers through delivery of quality products and services					
BS7	Your firm meets tastes and preferences of customers					
BS8	Your firm honors contractual agreements					
BS9	Your firm delivers products/services to customers in a timely manner					
BS10	Your firms is conscious about the goods required by consumers					
	Differentiation approach					
BS11	Your firm offers unique products/services					
BS12	Your organization charges low prices compared to competitors					
BS13	Your firm concentrates on a specific market/niche					

SECTION C: GOVERNMENT POLICIES (GS)

The following statements describe the influence of Government policies on performance of your organization. In a scale of 1-5 indicate the extent to which these statements apply to your organization **(Where 1 is "Strongly disagree", 2 is "Disagree", 3 is "Neutral", 4 is "Agree", 5 is "Strongly agree").** Tick one as appropriate

	Statements	1	2	3	4	5
	Legal/Regulatory Framework					
GS1	Industry standards enhances quality of products					
GS2	Legal compliance increases firm performance					
GS3	Compliance to safety guidelines enhances safety to processes and products					
	Statutory Framework					
GS4	Opening domestic markets decreases performance of local industries					
GS5	Profitability reduces because of increased taxation					
GS6	The current statutory framework enhances the quality of products/services					
	Policy framework					
GS7	The current policy framework increases value and quality of products					
GS8	Market access policy increases performance of manufacturing firms					
GS9	Government subsidies/incentives increase performance					

SECTION D: INFLUENCE OF FIRM INNOVATION (FI)

The following statements describe the influence of innovation on performance on your organization. In a scale of 1-5 indicate the extent to which these statements apply to your organization **(Where 1 is "Strongly disagree", 2 is "Disagree", 3 is "Neutral", 4 is "Agree", 5 is "Strongly agree").** Tick one as appropriate

	Statements	1	2	3	4	5
	Process Innovation					
FI1	Use of modern technology increases firm performance					
FI2	Our processes are reliable					
FI3	Our production is cost effective					
	Product Innovation					

FI4	We produce new and unique products					
FI5	Our production and distribution patterns are non-replicable					
FI6	We manufacture substitute products					
	Market Innovation					
FI7	We export products					
FI8	Entering new markets increases the number of customers					
FI9	We collect information about customer needs					

SECTION E: PERFORMANCE (PERF)

The statements below describe financial and nonfinancial measures related to organizational performance. **In a scale of 1-5, indicate the performance of the organization for the last 5 years (Where 1 is "Strongly disagree", 2 is "Disagree", 3 is "Neutral", 4 is "Agree", 5 is "Strongly agree"). (Tick one as appropriate).**

	Statements	1	2	3	4	5
	Financial Performance					
Perf1	Sales growth increases performance of our firm					
Perf2	We use return on sales to measure firm performance					
Perf3	return on assets increases firm performance					
	Customer Satisfaction					
Perf4	Satisfying customer needs increases our market share					
Perf5	Number of new customers in our organization is increasing					
	Internal Process performance					
Perf6	Operational costs determines efficiency of manufacturing processes					
Perf7	Our employee retention rate is high					
Perf8	Our average production costs is increasing					

Thank you for your time

Appendix 3: Factor Analysis Results

	Initial	Factor Loadings
BS1	1.000	.516
BS2	1.000	.505
BS3	1.000	.577
BS4	1.000	.689
BS5	1.000	.714
BS6	1.000	.541
BS7	1.000	.642
BS8	1.000	.475
BS9	1.000	.638
BS10	1.000	.662
BS11	1.000	.626
BS12	1.000	.565
BS13	1.000	.550
GS1	1.000	.815
GS2	1.000	.806
GS3	1.000	.564
GS4	1.000	.883
GS5	1.000	.568
GS6	1.000	.628
GS7	1.000	.727
GS8	1.000	.624
GS9	1.000	.690
FI1	1.000	.521
FI2	1.000	.807
FI3	1.000	.738
FI4	1.000	.743
FI5	1.000	.724
FI6	1.000	.781
FI7	1.000	.822
FI8	1.000	.755
FI9	1.000	.625
Perf1	1.000	.682
Perf2	1.000	.664
Perf3	1.000	.641
Perf4	1.000	.466
Perf5	1.000	.554
Perf6	1.000	.444
Perf7	1.000	.630
Perf8	1.000	.790

Appendix 4: Authority Letter from MUA

The Management University of Africa

MUA

Sponsored by The Kenya Institute of Management

Date: 28th February 2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

REF: WARUINGE MUHINDI- PHD CANDIDATE

This is to confirm that WARUINGE MUHINDI admission number: DMI/2/00010/2/2015 is a student of the Management University of Africa (MUA) currently pursuing a Doctor of Philosophy (PhD) degree in Management and Leadership. As part of the requirement for the degree programme, the candidate is expected to carry out a study and write a thesis on a topic of choice.

Muhindi's topic is "BUSINESS STRATEGIES, GOVERNMENT POLICIES, INNOVATION PROCESSES AND PERFORMANCE OF MANUFACTURING FIRMS IN KENYA" on which he has developed and successfully defended a proposal which has been approved by the University. He is now expected to collect data before finally writing his thesis.

The University wishes to request for assistance and cooperation from all the concerned parties the student will be engaging with in the course of his study.

Yours faithfully,
Management University of Africa

Dr. Washington Okeyo, PhD
Deputy Vice-Chancellor and PhD Coordinator

Appendix 5: Authorization Letter from Nacosti

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471,
2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/96503/28661**

Date: **30th April, 2019**

Patrick Waruinge Muhindi
Management University of Africa
P.O. Box 29677-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Business strategies, government policies, innovation processes and performance of manufacturing firms in Kenya"*** I am pleased to inform you that you have been authorized to undertake research in **all Counties** for the period ending **30th April, 2020.**

You are advised to report to **the County Commissioners and the County Directors of Education, all Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioners
All Counties.

The County Directors of Education
All Counties

Appendix 6: Nacosti Research permit

THIS IS TO CERTIFY THAT:

Permit No : NACOSTI/P/19/96503/28661

MR. PATRICK WARUINGE MUHINDI

Date Of Issue : 30th April,2019

of THE MANAGEMENT UNIVERSITY OF AFRICA, 16200-100 NAIROBI,has been

Fee Recieved :Ksh 2000

permitted to conduct research in All Counties

on the topic: BUSINESS STRATEGIES, GOVERNMENT POLICIES, INNOVATION PROCESSES AND PERFORMANCE OF MANUFACTURING FIRMS IN KENYA

for the period ending: 30th April,2020

.....

Applicant's Signature

.....

Director General

National Commission for Science, Technology & Innovation

Appendix 7: Certificate of Publication

ACADEMIC JOURNAL OF SOCIAL SCIENCES & EDUCATION

ISSN 2223 -4934

www.ajsse.org

Certificate of Publication

This is to certify paper titled **"EFFECT OF INNOVATION PROCESSES ON THE RELATIONSHIP BETWEEN BUSINESS STRTAEGIES AND PERFORMANCE OF MANUFACTURING FIRMS IN KENYA"** submitted by Author(s), WARUINGE MUHINDI, DR. PETER KITHAE (PHD) AND DR. JOHN CHELUGET (PHD) has been published for September 2020, Volume 7, Issue 3 online publication under ISSN 2223 - 4934.

Signed by:

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Email: editor@ajsse.org
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ISSN 1833-3850

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Certificate of Publication

This is to certify paper titled **" INFLUENCE OF BUSINESS STRATEGIES ON PERFORMANCE OF MANUFACTURING FIRMS IN KENYA"** submitted by Author(s) WARUINGE MUHINDI, DR. PETER KITHAE (PHD), AND DR. JOHN CHELUGET (PHD) has been published for October 2020, Volume 5, Issue 3 online publication under ISSN 1833 - 3850.

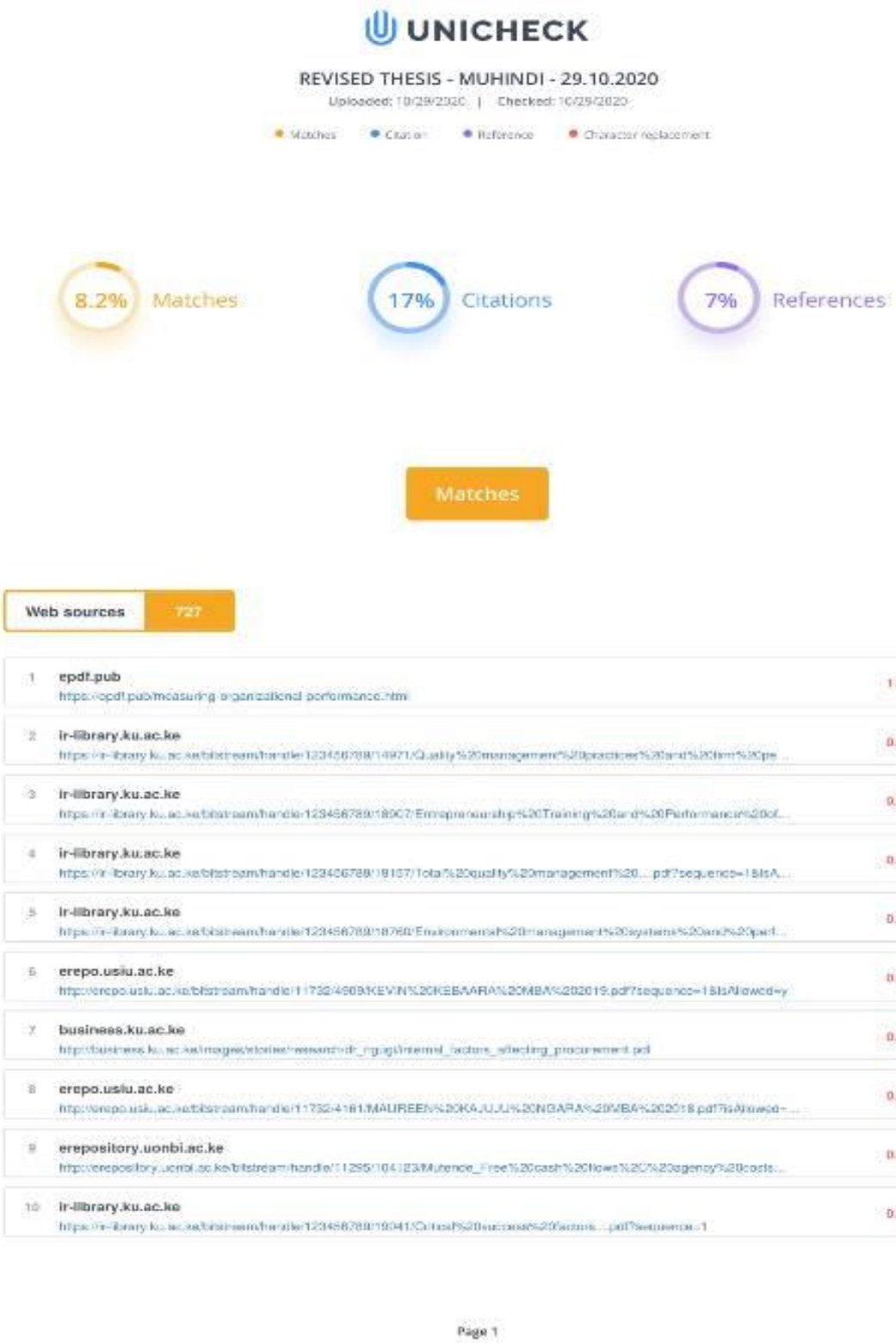
Signed by:

J. Prakash
Publication Head, Voltre Pub. Co. USA
Email: editor@ajbm.org
www.ajsse.org

AJSSE is referred online journal publish under ISSN 2223-4934

* This publication letter is electronically generated and signed.

Appendix 8: Plagiarism Report



Appendix 9: Raw Data

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
1	Chief Exec...	6.00	above 40 y...	Foreign only	Above 400	Regional	A	A	SA	A	N	SA	SA	SA	A	SA	SA	D
2	General M...	6.00	11-20 years	Local/private	101-200	Regional	A	D	A	SA	SA	SA	A	SA	A	SA	N	SD
3	General M...	6.00	above 40 y...	Local and ...	201-300	International	A	D	N	SA	N	SA	A	SA	A	SA	A	N
4	Chief Exec...	6.00	above 40 y...	Local and ...	Above 400	National	SA	SA	A	N	A	A	A	A	N	A	A	N
5	Head of De...	6.00	31-40 years	Local/private	101-200	National	A	A	D	D	SD	SA	A	SA	N	A	A	D
6	General M...	6.00	above 40 y...	Local/private	101-200	National	D	N	D	N	N	N	A	SA	N	N	D	N
7	General M...	6.00	above 40 y...	Local/private	101-200	National	A	N	A	SA	SA	A	N	SA	D	SA	N	D
8	Head of De...	6.00	above 40 y...	Local/state	Above 400	International	N	A	A	A	N	A	SA	N	A	N	SA	N
9	Head of De...	6.00	above 40 y...	Local/private	101-200	National	A	A	N	N	A	SA	N	A	A	N	N	A
10	General M...	6.00	above 40 y...	Local/private	301-400	International	A	SA	SD	SA	N	N	A	N	D	N	N	A
11	General M...	1.00	21-30 years	Local/private	101-200	National	A	N	N	N	A	A	SA	SA	A	SA	N	SA
12	Head of De...	6.00	31-40 years	Local/private	101-200	Regional	A	SA	A	A	A	N	A	N	N	N	N	SD
13	General M...	3.00	11-20 years	Local/private	101-200	Regional	A	N	A	N	A	N	A	SA	N	A	A	N
14	Chief Exec...	7.00	above 40 y...	Local and ...	201-300	International	A	SA	A	A	SA	A	SA	SA	SA	SA	N	A
15	Head of De...	5.00	11-20 years	Local/state	301-400	Regional	A	A	SA	A	N	A	N	SA	A	A	N	A
16	Chief Exec...	5.00	11-20 years	Local and ...	201-300	Regional	SA	A	A	N	A	SA	SA	SA	A	A	N	A
17	General M...	4.00	above 40 y...	Local and ...	301-400	Regional	SA	A	SA	SA	SA	SA	A	N	SA	SA	N	D
18	Chief Exec...	4.00	31-40 years	Local/privat...	201-300	Regional	SA	SA	SA	A	A	A	A	A	A	A	SD	SD
19	Chief Exec...	4.00	31-40 years	Local/private	201-300	Regional	N	SA	A	D	N	SA	N	SA	A	SA	A	SA
20	General M...	4.00	21-30 years	Local/private	Up to 100	National	N	N	D	SD	N	N	A	A	N	N	N	D
21	Chief Exec...	4.00	above 40 y...	Local and ...	301-400	National	SA	SA	SA	SA	SA	A	A	SA	A	A	D	A
22	Head of De...	7.00	11-20 years	Local/private	Up to 100	National	SA	A	A	N	A	SA	A	N	N	N	A	N
23	General M...	7.00	above 40 y...	Local/state	Above 400	National	SA	A	A	N	A	A	N	A	N	N	N	SD
24	Chief Exec...	4.00	31-40 years	Local and ...	101-200	Regional	SA	A	D	N	A	A	N	N	N	D	D	D
25	General M...	4.00	Up to 10 y...	Local/state	101-200	Regional	SA	N	D	D	A	SA	N	A	A	SA	SD	D
26	General M...	4.00	Up to 10 y...	Local/private	Up to 100	Regional	D	A	D	N	D	A	A	SA	SA	SA	SA	N
27	Chief Exec...	4.00	31-40 years	Local and ...	301-400	International	SA	A	A	A	SA	SA	A	SA	A	A	SA	N
28	Head of De...	4.00	31-40 years	Local/private	201-300	International	A	A	SA	A	SA	A	A	A	A	A	D	D

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
28	Head of De...	4.00	31-40 years	Local/private	201-300	International	A	A	SA	A	SA	A	A	A	A	A	D	D
29	Chief Exec...	4.00	11-20 years	Local and ...	101-200	International	SA	SA	SA	SA	SA	SA	SA	SA	A	SA	SA	A
30	Chief Exec...	4.00	21-30 years	Local/private	Up to 100	National	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	N	A
31	General M...	4.00	31-40 years	Local/private	201-300	Regional	A	A	N	D	N	A	SA	A	N	D	D	N
32	Chief Exec...	2.00	above 40 y...	Local/private	Up to 100	National	A	A	SA	N	N	SA	SA	A	SA	A	A	N
33	Chief Exec...	2.00	above 40 y...	Local and ...	101-200	Regional	SA	N	SA	SA	SA	SA	SA	D	N	A	D	SD
34	Head of De...	2.00	11-20 years	Local/private	Up to 100	National	N	N	A	A	A	SA	SA	SA	SA	SA	SA	A
35	Head of De...	2.00	11-20 years	Local/private	Up to 100	National	N	N	A	A	A	SA	SA	SA	SA	SA	SA	A
36	General M...	2.00	31-40 years	Local and ...	201-300	Regional	SA	SA	SA	SA	SA	SA	SA	SA	A	SA	SA	A
37	Chief Exec...	2.00	Up to 10 y...	Local and ...	Up to 100	National	A	A	A	A	A	SA	SA	SA	SA	SA	N	A
38	Head of De...	2.00	Up to 10 y...	Local/private	Above 400	National	SA	SA	N	A	A	SA	SA	SA	SA	SA	SA	A
39	General M...	2.00	11-20 years	Local/private	101-200	National	N	D	A	A	N	SA	SA	A	A	A	SD	SD
40	Chief Exec...	2.00	21-30 years	Local/private	101-200	National	N	N	D	D	N	SA	A	A	A	A	SA	A
41	General M...	2.00	above 40 y...	Local/private	101-200	Regional	D	D	D	D	D	A	A	A	A	A	N	N
42	Chief Exec...	2.00	31-40 years	Local/private	Up to 100	National	D	D	N	D	N	SA	SA	SA	SA	SA	SA	SA
43	Chief Exec...	2.00	above 40 y...	Local/private	Up to 100	Regional	N	SA	SA	A	SA	SA	SA	SA	A	SA	SA	D
44	Chief Exec...	2.00	11-20 years	Local/private	Up to 100	National	SA	SA	A	N	N	SA	A	SA	A	A	SA	A
45	Head of De...	2.00	11-20 years	Local/private	Up to 100	National	D	N	SA	A	SA	SA	A	SA	SA	SA	SA	A
46	Chief Exec...	2.00	21-30 years	Local/private	Up to 100	National	SA	A	A	A	A	A	A	A	A	A	N	N
47	General M...	2.00	21-30 years	Foreign only	Up to 100	International	SA	SA	SA	SA	SA	SA	SA	A	N	N	SA	A
48	Head of De...	2.00	31-40 years	Local/private	201-300	National	SA	A	A	A	A	A	A	A	A	A	A	A
49	Chief Exec...	2.00	21-30 years	Local/private	101-200	Regional	A	A	A	A	D	SA	A	SA	A	A	SA	SA
50	Chief Exec...	2.00	11-20 years	Local/state	101-200	National	A	A	A	D	D	SA	A	SA	N	A	SA	SA
51	General M...	2.00	31-40 years	Local/private	Above 400	Regional	A	A	SA	SA	SA	SA	SA	SA	SA	SA	SA	A
52	Chief Exec...	2.00	above 40 y...	Local/private	101-200	Regional	A	A	A	N	N	SA	A	A	SA	SA	A	A
53	Chief Exec...	2.00	21-30 years	Local and ...	101-200	Regional	A	A	A	N	N	SA	A	A	SA	SA	A	A
54	Head of De...	2.00	11-20 years	Local/private	Above 400	National	A	A	SA	SA	SA	SA	SA	SA	SA	SA	SA	A
55	Chief Exec...	2.00	above 40 y...	Local/private	Up to 100	Regional	SA	A	SA	SA	A	SA	SA	SA	SA	SA	A	A

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
57	Chief Exec...	2.00	above 40 y...	Local and ...	101-200	Regional	N	A	SA	SA	SA	SA	SA	SA	SA	SA	N	D
58	General M...	2.00	above 40 y...	Local/private	201-300	National	A	A	SA	SA	SA	SA	SA	SA	SA	SA	SD	D
59	Chief Exec...	3.00	Up to 10 y...	Local and ...	Up to 100	National	A	A	A	A	A	SA	A	A	A	N	SA	SD
60	General M...	7.00	11-20 years	Local/private	Up to 100	Regional	SA	N	SD	N	SA	A	SA	SA	A	SA	N	D
61	Head of De...	3.00	Up to 10 y...	Local/private	Up to 100	National	A	N	A	A	A	N	A	A	N	A	N	A
62	Chief Exec...	6.00	above 40 y...	Local and ...	Above 400	5.00	A	A	A	A	A	SA	SA	SA	A	SA	SA	SD
63	General M...	6.00	above 40 y...	Local and ...	101-200	International	SA	D	A	SA	SA	SA	A	N	A	N	SA	A
64	Chief Exec...	3.00	above 40 y...	Local and ...	201-300	International	SA	A	N	A	SA	A	N	A	A	N	D	N
65	Chief Exec...	1.00	21-30 years	Local and ...	Up to 100	National	N	D	N	SA	SA	SA	N	A	A	N	N	SD
66	General M...	3.00	above 40 y...	Local/private	Up to 100	National	A	N	SA	N	A	SA	SA	SA	SA	SA	SA	A
67	Chief Exec...	3.00	21-30 years	Local/privat...	301-400	Regional	SD	SD	SA	SA	SA	SA	D	SA	A	A	SD	SD
68	Chief Exec...	3.00	above 40 y...	Local/private	201-300	International	D	D	D	N	SD	N	A	SA	A	N	SD	D
69	Head of De...	3.00	above 40 y...	Local/privat...	301-400	Regional	SA	A	A	A	N	SD	N	N	D	A	SD	SD
70	Chief Exec...	3.00	above 40 y...	Local and ...	Above 400	International	A	N	A	A	A	SA	SA	A	A	A	SA	N
71	Chief Exec...	3.00	above 40 y...	Local and ...	201-300	International	SA	A	A	A	A	N	N	N	SA	SA	N	A
72	General M...	3.00	31-40 years	Local and ...	101-200	Regional	A	A	A	N	D	SA	SA	SA	SA	SA	N	D
73	Chief Exec...	3.00	above 40 y...	Local/state	Above 400	Regional	A	SA	SA	SA	A	N	D	N	N	A	A	N
74	General M...	4.00	above 40 y...	Local/private	Above 400	International	SA	SA	A	SA	A	SA	SA	SA	A	N	A	N
75	Chief Exec...	1.00	above 40 y...	Local and ...	201-300	International	SA	SA	A	SA	A	A	N	A	N	A	A	SA
76	General M...	5.00	31-40 years	Local/privat...	101-200	International	A	SA	A	A	SA	SA	SA	SA	SA	SA	A	N
77	Head of De...	7.00	above 40 y...	Local/private	101-200	Regional	SA	A	A	N	A	A	SA	A	N	A	N	A
78	Head of De...	1.00	21-30 years	Local/state	201-300	National	N	D	A	N	D	D	D	N	D	D	N	N
79	General M...	2.00	21-30 years	Local/state	101-200	National	A	D	N	N	A	N	A	N	A	A	N	A
80	Head of De...	1.00	31-40 years	Local/privat...	101-200	National	SA	A	A	A	A	N	A	N	SA	N	A	A
81	Head of De...	3.00	Up to 10 y...	Local/private	101-200	Regional	SA	SA	SA	A	SA	SA	SA	A	SA	SA	SA	SA
82	General M...	4.00	Up to 10 y...	Local/state	Up to 100	National	A	A	A	A	A	A	A	A	A	A	A	A
83	Head of De...	1.00	Up to 10 y...	Local and ...	Up to 100	National	A	A	A	SA	SA	A	N	N	A	N	N	SD
84	Head of De...	1.00	Up to 10 y...	Local/privat...	201-300	National	A	A	A	A	A	A	N	A	N	A	N	A

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
85	General M...	5.00	31-40 years	Local/state	Up to 100	National	N	A	A	N	A	N	N	N	N	N	N	N
86	Chief Exec...	1.00	31-40 years	Foreign only	Above 400	Regional	N	N	N	N	N	N	N	N	A	A	A	N
87	Chief Exec...	1.00	above 40 y...	Local/privat...	101-200	National	N	N	N	N	N	N	N	N	N	A	N	N
88	General M...	1.00	Up to 10 y...	Local/state	101-200	National	N	N	N	N	N	N	N	N	N	N	N	N
89	Chief Exec...	6.00	Up to 10 y...	Local and ...	101-200	Regional	A	A	A	A	A	A	A	A	A	A	A	A
90	Head of De...	1.00	Up to 10 y...	Local/state	Above 400	National	A	N	A	A	A	A	A	A	A	A	A	A
91	General M...	2.00	Up to 10 y...	Local/state	301-400	National	A	A	A	N	A	A	A	A	A	A	A	A
92	General M...	1.00	Up to 10 y...	Foreign only	201-300	Regional	A	A	A	A	A	A	A	A	A	A	A	A
93	Chief Exec...	6.00	Up to 10 y...	Local/state	301-400	Regional	A	A	A	A	A	A	A	A	A	A	A	A
94	Head of De...	1.00	Up to 10 y...	Foreign only	101-200	International	N	N	A	N	A	A	A	A	A	A	A	A
95	Chief Exec...	1.00	31-40 years	Local/private	301-400	Regional	A	A	A	A	A	A	A	A	A	A	N	N
96	General M...	2.00	Up to 10 y...	Local/state	Up to 100	International	N	N	N	N	N	N	N	N	N	A	A	A
97	Chief Exec...	1.00	Up to 10 y...	Local/privat...	Above 400	National	A	A	A	A	A	A	A	A	A	A	A	A
98	Chief Exec...	2.00	Up to 10 y...	Local/state	201-300	National	A	A	A	A	A	A	A	A	A	A	A	A
99	General M...	2.00	Up to 10 y...	Local and ...	101-200	Regional	A	N	A	A	A	A	A	A	A	A	A	N
100	Chief Exec...	4.00	31-40 years	Local/state	201-300	Regional	N	N	N	N	A	N	A	A	A	A	A	A
101	Head of De...	3.00	Up to 10 y...	Local/privat...	301-400	National	A	A	A	A	A	A	A	A	A	N	A	A
102	General M...	1.00	Up to 10 y...	Local/state	Up to 100	International	A	N	A	A	N	A	A	N	A	A	A	A
103	Chief Exec...	2.00	31-40 years	Foreign only	Up to 100	National	A	A	A	N	A	A	A	N	A	A	N	A
104	General M...	4.00	Up to 10 y...	Local/private	301-400	Regional	N	A	A	A	A	A	A	A	A	N	A	A
105	Chief Exec...	2.00	31-40 years	Local/private	Up to 100	National	A	A	A	A	A	A	A	A	A	A	A	A
106	General M...	6.00	Up to 10 y...	Local and ...	Above 400	Regional	A	N	A	A	A	A	A	A	A	A	A	A
107	Head of De...	1.00	Up to 10 y...	Local/state	101-200	International	A	N	N	N	N	N	N	N	A	N	N	N
108	Head of De...	2.00	Up to 10 y...	Foreign only	101-200	National	N	N	A	N	A	A	A	A	A	A	A	N
109	Head of De...	2.00	Up to 10 y...	Local/privat...	Above 400	Regional	A	A	A	A	N	A	A	A	A	A	A	N
110	Chief Exec...	4.00	21-30 years	Local/private	101-200	National	SA	N	A	SA	A	A	SA	A	A	SA	A	N
111	General M...	1.00	21-30 years	Local/private	101-200	Regional	D	N	A	A	N	D	SA	SA	N	SA	SA	N
112	Chief Exec...	2.00	21-30 years	Local and ...	Up to 100	National	D	D	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
112	Chief Exec...	2.00	21-30 years	Local and ...	Up to 100	National	D	D	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
113	General M...	3.00	above 40 y...	Local and ...	301-400	International	SA	SA	D	A	SA	A	N	SA	N	SA	SA	N
114	Chief Exec...	2.00	21-30 years	Foreign only	201-300	International	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
115	Head of De...	2.00	11-20 years	Local/private	Above 400	National	A	A	A	SA	SA	SA	SA	SA	A	SA	A	A
116	Chief Exec...	4.00	above 40 y...	Local and ...	Up to 100	International	SD	SA	D	N	A	SA	SA	SA	SA	SA	A	N
117	Chief Exec...	4.00	above 40 y...	Local/private	Up to 100	National	A	D	A	A	D	SA	SA	SA	SA	SA	A	N
118	General M...	1.00	11-20 years	Foreign only	Up to 100	International	SA	SA	SA	A	SA	SA	SA	SA	SA	SA	SA	SD
119	Head of De...	1.00	31-40 years	Local and ...	201-300	Regional	SA	D	A	N	D	SA	A	A	SA	A	N	D
120	Head of De...	2.00	21-30 years	Local/private	Up to 100	National	D	N	N	N	N	SA	SA	SA	SA	SA	SA	N
121	Chief Exec...	2.00	11-20 years	Local/private	Up to 100	National	N	A	A	A	A	N	N	D	N	N	SD	N
122	Head of De...	1.00	21-30 years	Local/private	Up to 100	International	A	A	N	N	N	SA	A	A	A	SA	SA	A
123	Chief Exec...	1.00	above 40 y...	Local/private	201-300	Regional	A	A	A	N	A	SA	N	N	A	SA	SA	D
124	Chief Exec...	1.00	above 40 y...	Local/private	Above 400	International	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
125	General M...	4.00	21-30 years	Local/private	Above 400	National	A	SA	A	A	D	SA	SA	SA	N	A	A	D
126	General M...	1.00	Up to 10 y...	Local/private	Up to 100	National	A	SA	D	N	D	SA	SA	SA	A	SA	SA	N
127	General M...	1.00	21-30 years	Local/private	Up to 100	National	A	A	N	N	N	SA	SA	SA	A	SA	SA	A
128	General M...	1.00	21-30 years	Local/private	Up to 100	National	A	A	N	N	N	SA	SA	SA	A	SA	SA	A
129	Chief Exec...	3.00	11-20 years	Local/private	Up to 100	Regional	SA	SA	SA	SA	A	SA	SA	A	A	SA	SA	N
130	Chief Exec...	1.00	11-20 years	Local/private	Up to 100	National	D	SD	D	SD	D	D	D	SD	D	D	D	SD
131	Chief Exec...	1.00	31-40 years	Local/private	Up to 100	National	N	N	D	D	D	SA	A	SA	A	A	SA	D
132	General M...	4.00	31-40 years	Local and ...	201-300	Regional	SA	A	SA	SA	SA	SA	A	N	A	A	A	SA
133	Chief Exec...	5.00	31-40 years	Local and ...	201-300	Regional	D	N	D	A	A	D	N	SA	SD	N	SA	SD
134	General M...	1.00	31-40 years	Foreign only	301-400	National	SA	SA	A	A	A	SA	SA	A	SA	A	SA	SA
135	Head of De...	5.00	11-20 years	Local/private	101-200	International	A	SA	A	A	A	A	A	SA	N	A	A	A
136	Head of De...	2.00	Up to 10 y...	Local/private	201-300	Regional	A	SA	N	SA	SA	A	SA	SA	SA	A	N	SA
137	Head of De...	4.00	31-40 years	Local and ...	101-200	National	SA	SA	A	A	SA	SA	SA	A	SA	SA	A	SA
138	Head of De...	4.00	Up to 10 y...	Foreign only	101-200	International	SA	N	D	D	A	SA	N	SD	A	N	SA	SA

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
139	Chief Exec...	2.00	above 40 y...	Local/private	301-400	Regional	D	D	A	A	SA	A	A	SA	N	D	SA	N
140	General M...	1.00	31-40 years	Local and ...	101-200	National	N	N	A	A	N	N	N	A	SA	N	A	N
141	Head of De...	1.00	31-40 years	Local and ...	101-200	International	A	A	SA	SA	SA	SA	A	A	SA	SA	A	A
142	General M...	3.00	Up to 10 y...	Local and ...	301-400	International	SA	A	SA	A	A	N	SA	N	A	SA	SA	A
143	General M...	4.00	above 40 y...	Foreign only	301-400	International	A	SA	SA	N	SA	A	A	SA	A	A	SA	SA
144	General M...	1.00	Up to 10 y...	Local and ...	101-200	Regional	SA	A	SA	N	SA	SA	A	A	N	A	N	A
145	Chief Exec...	1.00	above 40 y...	Local and ...	Above 400	National	SA	SA	SA	A	A	A	N	SA	SA	A	A	SA
146	General M...	4.00	21-30 years	Local/privat...	201-300	Regional	N	N	D	A	SA	N	D	N	D	A	A	SA
147	General M...	3.00	31-40 years	Local and ...	301-400	Regional	SA	A	N	SA	A	SA	A	SA	A	SA	SA	N
148	Head of De...	1.00	11-20 years	Local/private	201-300	National	SA	N	SA	N	SD	A	SD	N	D	N	A	SA
149	General M...	4.00	above 40 y...	Local/private	201-300	Regional	SA	SA	SA	SA	SA	N	SA	SA	SA	SA	SA	SA
150	General M...	5.00	above 40 y...	Local/state	301-400	International	A	SA	SA	SA	SA	SA	A	SA	A	SA	SA	SA
151	Head of De...	4.00	21-30 years	Local/privat...	201-300	National	A	A	A	A	N	N	A	A	A	A	A	A
152	Chief Exec...	5.00	Up to 10 y...	Local and ...	101-200	Regional	N	A	A	N	D	A	A	A	D	N	D	N
153	General M...	4.00	above 40 y...	Local and ...	101-200	Regional	SA	A	A	SA	A	SA	A	SA	N	SA	A	N
154	Chief Exec...	4.00	above 40 y...	Local/private	301-400	National	SD	SD	SD	D	SD	SD	SD	SD	SD	SD	SD	SD
155	Chief Exec...	1.00	21-30 years	Local/private	101-200	National	A	A	N	SA	A	A	A	A	SA	A	A	N
156	General M...	4.00	21-30 years	Local/private	201-300	National	A	N	SA	A	D	N	A	SA	SA	N	A	SA
157	Chief Exec...	1.00	11-20 years	Local/private	101-200	International	SA	N	A	SA	SA	A	SA	SA	SA	A	SA	SA
158	General M...	5.00	above 40 y...	Local/state	101-200	Regional	A	A	SA	A	A	SA	A	SA	A	A	SA	SA
159	Chief Exec...	4.00	21-30 years	Local/state	201-300	National	SA	A	SA	A	SA	SA	SA	SA	N	A	SA	A
160	Chief Exec...	5.00	11-20 years	Local and ...	301-400	International	SA	N	SA	A	N	SA	A	SA	N	N	SA	SA
161	Chief Exec...	1.00	above 40 y...	Local/state	101-200	National	A	N	N	SA	SA	A	N	A	N	A	A	A
162	General M...	4.00	11-20 years	Local/private	101-200	Regional	SA	A	SA	A	N	A	SA	A	SA	A	A	SA
163	General M...	1.00	above 40 y...	Local and ...	301-400	National	A	A	SA	N	A	A	A	SA	A	A	SA	SA
164	General M...	5.00	11-20 years	Local and ...	101-200	National	SA	SA	SA	SA	SA	SA	SA	SA	A	SA	SA	SA
165	Chief Exec...	4.00	31-40 years	Local/privat...	Above 400	Regional	N	A	A	D	N	N	D	A	N	D	N	N
166	General M...	3.00	21-30 years	Foreign only	101-200	National	SA	SA	N	A	SA	A	SA	A	A	SA	SA	A

	Position	Region	operation	Ownership	Employees	Scope	BS1	IT	CF	DS	BS5	BS6	BS7	BS8	BS9	BS10	BS11	BS12
167	Head of De...	7.00	above 40 y...	Local/privat...	201-300	Regional	SA	SA	SA	D	SD	D	D	SA	SD	SD	A	N
168	Head of De...	5.00	11-20 years	Local/privat...	101-200	International	SA	N	SA	SD	SD	SA	N	SA	D	D	N	N
169	Head of De...	7.00	31-40 years	Local/private	101-200	National	N	D	D	D	N	A	N	SA	A	N	N	N
170	Head of De...	3.00	21-30 years	Local/private	101-200	National	A	A	SA	D	D	N	N	N	SD	A	D	D
171	Chief Exec...	3.00	above 40 y...	Local/private	201-300	International	SA	N	SA	A	D	A	A	A	D	A	D	N
172	General M...	1.00	21-30 years	Local/privat...	201-300	National	N	A	N	A	SA	N	D	SA	SA	A	D	A
173	Head of De...	5.00	31-40 years	Local/private	101-200	National	SA	A	SA	SD	A	SA	A	SA	A	D	N	N

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
1	A	D	SA	SA	SD	SD	SD	SA	SA	SD	SA	SA	SA	SA	N	D	SA	SA
2	N	SA	SA	SA	SA	SA	N	D	D	SA	A	N	D	D	SD	SD	A	A
3	A	A	A	D	SD	SA	SA	N	N	N	SA	A	A	A	D	SD	SA	SA
4	A	A	D	N	A	A	N	N	A	N	SA	A	N	N	D	SD	SA	A
5	SD	A	SD	A	N	SD	D	SD	N	D	N	N	A	SD	SD	SD	SD	SA
6	N	SA	A	N	A	A	N	A	N	N	SA	A	A	N	N	A	D	N
7	N	A	SA	N	SA	SA	SD	SD	A	SD	A	A	N	A	SD	SD	A	SA
8	N	SA	SA	A	SA	SA	SA	N	D	SD	A	A	A	SA	SD	D	A	SA
9	N	D	N	D	SA	SA	SA	A	A	A	SA	SA	A	A	A	N	A	N
10	N	N	A	N	D	N	A	D	N	D	SD	N	SA	N	A	D	SA	N
11	SA	SA	N	SA	SA	SA	SD	SD	SD	SD	SA	A	D	SD	SD	SD	D	SA
12	N	N	N	N	N	A	A	D	N	D	A	N	N	N	SD	SD	N	N
13	N	N	D	N	D	A	D	D	D	D	SA	A	A	A	N	D	SD	A
14	N	N	A	N	N	A	SA	N	A	N	SA	A	N	A	SD	SA	N	A
15	SA	SA	A	SA	N	A	N	N	A	N	A	SA	A	A	N	A	SA	SA
16	SA	A	N	A	A	SA	A	A	A	N	A	A	N	D	SA	SA	A	SA
17	SA	SA	SA	SA	SA	A	SD	D	N	SD	SA	SA	A	N	SD	N	A	N
18	SA	A	N	A	N	N	N	N	N	N	SA	SA	SA	SD	D	N	A	A
19	A	SD	D	D	N	SA	D	SD	SD	SD	A	A	N	SD	SD	D	A	A
20	A	SD	D	D	N	N	N	D	D	D	N	A	N	D	D	A	SD	N
21	N	D	N	N	D	D	D	D	D	D	N	N	N	A	N	A	N	A
22	A	D	N	D	A	N	D	D	D	N	A	N	A	N	A	N	D	N
23	SD	A	N	A	SA	SA	SA	A	A	A	SA	A	D	D	SD	SD	SD	A
24	D	SA	SA	SA	SD	N	D	SD	SD	SD	A	A	A	SD	SD	N	A	A
25	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA	D	D	D	SD	SD	SA	D	A
26	SA	A	SD	D	SA	SA	SD	D	SD	SD	SA	N	D	D	SD	A	SD	A
27	D	A	A	D	SA	SA	N	N	SA	SD	SA	SA	SA	SD	SD	SA	SA	SA
28	D	SA	D	N	SA	A	SD	SD	A	D	A	A	A	SA	N	A	N	N

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
29	SA	D	N	A	SD	N	N	N	D	SD	SA	SA	A	N	SD	A	SA	A
30	A	SD	D	D	D	SA	N	SD	D	SD	SA	N	SA	SD	SD	SA	SD	N
31	D	N	D	D	SA	SA	SD	SD	SD	SD	SA	A	A	SD	SD	SD	A	N
32	A	SA	N	A	A	SA	D	A	A	D	N	A	A	N	D	D	SD	A
33	N	SA	SA	SA	SA	SA	SA	N	N	N	A	SA	N	N	A	SD	A	SA
34	A	A	A	SA	N	SA	A	A	A	A	A	A	N	A	N	N	SD	A
35	A	A	A	SA	N	SA	A	A	A	A	A	A	N	A	N	N	SD	A
36	A	A	SA	SA	SA	SA	A	SA	SA	A	SA	SA	A	SA	A	SD	A	SA
37	A	N	N	N	A	A	SD	SD	N	SA	A	A	A	N	N	N	SD	SA
38	A	N	D	SA	A	N	SD	N	N	D	A	SA	SA	A	D	A	N	D
39	SD	A	A	A	A	A	N	D	N	SD	A	A	A	SD	SD	SD	D	SD
40	N	A	A	A	N	N	N	A	A	N	N	N	A	A	N	A	SD	N
41	N	A	A	A	A	A	A	N	N	A	N	N	N	N	N	SD	A	A
42	D	A	D	D	N	N	N	D	N	N	A	SA	SA	SA	D	SD	D	SA
43	SA	N	A	SA	D	A	SA	D	D	D	SA	A	SA	SA	N	D	A	SA
44	N	SA	SA	SA	SA	SA	N	N	N	D	N	SA	N	SA	N	N	D	D
45	SA	D	SD	D	SA	A	A	N	D	SA	D	A	N	N	A	SA	SD	N
46	N	N	A	A	D	D	N	D	D	D	A	A	A	SA	N	SD	SD	D
47	A	N	N	A	N	A	N	A	A	A	SA	SA	N	A	SA	SD	SD	D
48	A	N	A	A	D	D	N	D	D	D	A	A	A	SA	A	SD	SD	A
49	N	SA	SA	SA	N	N	N	N	N	N	A	A	A	N	A	N	D	N
50	A	SA	SA	SA	N	N	A	A	A	A	A	A	D	A	N	SD	SD	A
51	D	D	N	A	SA	SA	A	A	A	D	SA	SA	A	SA	A	SD	D	A
52	A	A	A	SA	N	A	A	N	A	A	SA	A	A	A	A	N	A	A
53	A	A	A	SA	N	A	A	N	A	A	A	A	A	SA	A	N	N	A
54	D	D	N	A	SA	SA	A	A	A	D	SA	SA	A	SA	A	SD	D	SA
55	A	N	N	A	N	N	D	D	A	A	A	A	A	SD	SD	SD	SD	N
56	SA	SA	SA	SA	N	A	D	N	N	N	SA	A	A	A	N	N	A	SA

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
57	N	SA	SA	SA	SA	SA	SA	A	N	A	A	SA	N	A	D	SD	A	A
58	A	N	A	A	SA	SA	A	A	A	D	SA	SA	A	SA	A	SD	SD	SD
59	A	A	SD	D	SA	A	A	A	D	SD	SA	D	SD	D	SD	SD	SD	N
60	SA	SA	SA	A	A	SA	SD	N	N	N	SA	N	D	N	SD	SD	SA	N
61	N	SD	N	N	A	A	N	SA	A	SA	SD	D	SA	A	A	N	D	SD
62	SA	SA	A	A	SD	N	SD	A	N	SA	SA	N	SA	SA	N	SA	SA	SA
63	SA	SA	SA	SA	A	D	A	A	SA	SA	SA	N	A	A	SD	N	SA	A
64	A	D	N	D	SA	SA	A	A	SA	SD	A	N	A	N	A	N	SA	SA
65	SA	N	N	D	D	A	D	D	A	N	SD	SD	SA	SA	D	SA	SA	SA
66	N	A	N	N	A	A	N	N	N	N	SA	D	N	A	A	A	SD	A
67	SD	A	N	N	N	D	D	SD	SD	SD	A	A	A	N	N	N	D	D
68	D	SA	A	A	SA	SA	SD	SD	N	SD	SA	SA	SA	A	A	A	A	A
69	SD	SA	N	D	N	A	D	SD	SD	SD	SD	SD	SD	SD	SD	SD	A	N
70	SA	SA	SA	SA	SD	N	N	A	A	D	SA	A	A	N	SD	SA	SA	SA
71	A	A	N	A	D	N	A	A	A	A	SA	SA	A	SA	SD	SD	A	A
72	SA	A	N	D	SA	SA	N	N	A	D	SA	SA	SA	SA	SD	SD	SA	A
73	A	SA	SA	SA	D	N	N	SD	D	N	SA	SA	A	A	N	D	N	A
74	N	N	A	D	A	N	D	D	A	D	A	D	N	N	D	A	A	D
75	A	SA	A	SA	A	A	SA	A	SA	A	D	A	N	N	D	N	A	N
76	SA	D	N	N	N	A	A	N	N	D	A	SA	A	SA	D	A	SA	A
77	N	A	SA	SA	D	A	D	N	N	A	SA	SA	SA	SA	SA	A	A	SA
78	D	SD	D	N	N	N	N	D	N	N	N	D	SD	D	D	N	D	D
79	A	N	A	A	N	A	A	N	N	N	A	D	D	SD	D	N	D	N
80	N	N	A	N	SA	D	N	SD	D	SD	D	D	N	D	D	D	N	D
81	A	SA	SA	A	SA	SA	A	A	SA	A	SA	D	D	N	D	D	N	D
82	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
83	N	N	SA	SA	SD	N	N	D	SA	A	A	SD	SD	SD	SD	SD	SD	D
84	N	A	N	A	N	A	N	A	A	A	A	A	A	A	A	A	A	A

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
85	N	N	A	A	A	A	A	A	A	A	A	A	A	A	A	D	N	N
86	N	N	N	N	N	N	N	N	A	A	A	A	N	N	N	N	N	N
87	N	N	N	N	N	N	N	N	N	A	A	A	D	N	N	N	N	N
88	A	N	N	N	A	A	A	A	A	A	A	A	A	A	A	A	A	A
89	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
90	A	A	A	A	A	A	N	N	N	A	N	N	N	A	N	N	N	N
91	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
92	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
93	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
94	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
95	A	A	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A	A
96	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
97	A	A	A	A	A	A	A	A	N	A	N	A	A	A	A	A	A	A
98	A	A	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A	A
99	A	N	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
100	A	A	A	A	A	A	A	A	N	A	A	A	A	A	A	A	A	A
101	A	A	A	A	A	A	A	A	A	A	A	A	N	A	N	A	N	A
102	A	A	A	A	A	A	A	A	A	A	A	A	A	N	A	A	A	A
103	A	N	A	A	N	A	N	A	A	N	A	A	A	N	A	A	N	A
104	A	A	A	A	N	A	A	A	N	A	N	A	N	A	N	A	N	A
105	A	A	A	A	A	N	A	A	A	N	A	N	A	N	N	N	N	N
106	A	A	A	A	A	A	A	A	A	A	N	N	A	N	N	N	N	A
107	A	N	A	N	A	N	A	N	N	A	A	A	A	A	A	A	A	A
108	A	A	A	N	A	A	A	A	A	A	A	A	A	A	A	A	A	A
109	A	A	A	A	A	A	N	A	N	A	A	A	A	A	A	A	A	A
110	A	SA	N	SA	SD	SA	N	A	N	A	SA	N	N	A	SD	SD	SD	SA
111	A	SA	SA	SA	SA	SA	D	D	SA	SA	N	D	N	N	SD	A	SA	SA
112	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
113	A	D	D	D	SD	SA	SD	SD	SA	SD	SA	SD	SD	SD	SD	SD	A	SA
114	SA	SA	SA	SA	SA	SA	A	SA	SA	SA	SA	SA	SA	SA	SA	SD	SA	SA
115	N	SA	SA	SA	N	N	A	A	N	N	SA	SA	A	A	A	N	SD	D
116	SA	SD	D	A	N	SA	SD	D	A	SD	A	A	N	N	A	SD	SA	SA
117	A	D	D	D	D	SA	SD	SD	SD	SD	A	A	D	A	D	SD	A	A
118	A	A	SA	SA	SD	D	D	N	A	D	SA	SA	N	SA	SA	SA	SA	SA
119	D	D	D	N	N	SA	SD	D	D	D	N	SA	A	A	SD	SD	A	SA
120	A	N	N	A	SA	A	N	N	A	N	SA	SA	SA	SA	N	SA	D	SA
121	N	SD	D	SA	N	SA	N	SD	D	N	A	N	N	D	N	SD	D	A
122	A	SA	A	SA	SD	SA	N	A	A	SA	N	N	N	A	N	N	A	A
123	SA	A	SA	A	A	N	A	A	A	A	A	A	SA	A	SA	A	A	A
124	N	SA	SA	SA	SA	SA	SA	A	A	N	A	SA	A	A	A	SA	SA	SA
125	N	SA	SA	SA	N	SA	D	N	N	N	SA	A	A	A	D	D	N	A
126	SD	SA	D	A	SD	N	SD	N	A	N	A	A	A	A	N	SD	SD	A
127	A	A	N	N	D	A	N	N	D	A	A	A	N	SA	N	D	SA	SA
128	A	A	N	N	D	A	N	N	D	A	A	A	N	SA	N	D	SA	SA
129	N	SA	SA	SA	SA	SA	N	N	N	SD	SA	SA	SA	SA	N	SA	SD	SA
130	D	SD	SD	D	SD	SD	SD	SD	SD	SD	D	D	D	D	D	D	SD	D
131	A	A	SD	N	D	SA	SD	SD	SD	SD	D	A	D	A	D	A	SD	A
132	A	SA	A	A	SA	SA	A	A	SA	A	SA	D	N	SD	D	SD	N	SD
133	SD	SD	D	A	N	SA	SA	SA	A	SA	N	N	D	N	D	SD	SD	N
134	N	A	A	SA	N	N	SA	N	A	A	A	N	N	N	N	D	D	N
135	N	A	A	A	SA	SA	N	SA	A	A	A	SD	SD	D	D	N	N	N
136	SA	A	SA	N	N	N	N	SA	A	SA	A	D	D	SD	D	D	SD	D
137	A	SA	A	N	D	SA	SD	D	N	N	D	SD	SD	D	SD	SD	SD	D
138	SA	SA	N	N	SA	N	SA	A	SA	D	D	N	D	N	D	D	N	N
139	SA	N	N	SA	SD	D	D	N	SA	N	SA	D	N	N	D	D	N	D
140	A	SA	N	N	SA	N	A	D	N	N	N	SD	SD	SD	N	SD	N	D

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
141	SA	A	N	D	SD	A	D	SD	N	D	D	D	N	D	D	N	N	D
142	SA	SA	A	A	SA	A	A	SA	A	A	SA	N	N	D	D	N	N	D
143	A	SA	A	SA	SA	SA	A	A	N	A	SA	N	D	N	N	D	D	D
144	SA	A	SA	N	N	SA	SA	A	SA	A	N	SD	D	D	SD	D	D	D
145	A	A	A	A	SA	A	A	N	N	A	A	D	D	SD	SD	SD	SD	N
146	D	A	SA	N	N	SA	A	SA	SA	N	A	N	SD	D	D	D	D	N
147	SA	SA	A	SA	D	A	A	A	N	A	D	N	D	SD	D	SD	D	SD
148	SD	D	N	N	SA	N	N	D	SA	D	A	D	SD	D	D	SD	N	SD
149	N	SA	SA	A	SA	A	SA	N	SA	SA	SA	N	N	SD	D	N	SD	D
150	A	SA	SA	N	N	N	SA	SA	SA	A	SA	D	SD	SD	D	SD	D	N
151	A	A	A	N	SA	SA	A	A	SA	SA	A	D	N	N	D	N	D	N
152	D	N	SD	N	D	D	N	D	N	A	N	N	D	D	SD	D	N	D
153	D	N	N	N	N	SA	A	A	SA	A	A	N	N	N	N	N	N	N
154	D	SD	SD	SA	SA	A	A	SD	SD	SD	SD	D	D	D	D	D	SD	D
155	D	D	SD	A	N	SA	N	A	A	A	A	N	N	D	SD	D	N	D
156	A	N	A	A	SA	N	D	A	N	A	SA	N	SD	D	N	D	SD	SD
157	D	N	SA	A	SA	N	SA	D	A	N	D	D	N	SD	N	N	D	D
158	A	SA	A	A	SA	A	SA	N	A	A	SA	N	N	D	N	D	D	D
159	SA	N	A	A	SA	N	SA	N	D	N	D	N	D	D	SD	SD	D	N
160	D	N	SA	SA	N	A	SA	D	A	SA	A	D	N	D	N	N	N	SD
161	D	A	N	N	N	A	N	A	SD	SD	D	D	SD	SD	D	N	SD	SD
162	A	N	A	N	N	A	A	SA	A	A	N	D	SD	N	D	SD	SD	N
163	A	A	N	A	N	A	A	A	A	A	A	D	D	SD	D	D	D	D
164	SA	N	SA	A	SA	A	SA	A	SA	SA	SA	N	D	D	N	N	N	N
165	D	D	N	N	D	N	A	N	D	A	N	D	SD	D	D	SD	SD	D
166	SA	SA	A	N	N	A	N	N	SA	SA	SA	D	SD	SD	SD	D	SD	D
167	SD	SD	SD	A	N	N	N	SA	A	SA	SA	N	D	D	SD	SD	SD	SD
168	A	SD	D	A	SA	N	N	D	SD	SA	D	SD	SD	D	SD	SD	SD	SD

	BS13	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9	FI1	FI2	FI3	FI4	FI5	FI6	FI7	FI8
168	A	SD	D	A	SA	N	N	D	SD	SA	D	SD	SD	D	SD	SD	SD	SD
169	D	SD	D	N	SA	A	N	N	D	N	D	SD	SD	D	D	SD	SD	SD
170	SD	SD	D	N	SD	A	N	SD	SD	A	D	SD	D	SD	SD	SD	SD	D
171	D	SD	D	D	D	N	A	N	D	N	N	D	SD	SD	D	N	N	N
172	A	N	SA	A	A	N	A	D	N	A	D	SD	SD	D	SD	N	D	SD
173	N	A	SA	A	D	D	D	A	N	A	SA	D	D	D	SD	SD	D	SD

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
1	SA	A	SA	SA	SA	SA	SA	SA	A	SA
2	A	A	SA	D	SA	A	N	SA	N	SD
3	SA	SA	A	SA	SA	SA	N	SA	N	SD
4	A	N	SA	SA	SA	SA	SA	A	SA	A
5	SA	A	A	SD	N	N	N	A	D	N
6	N	N	SA	A	A	N	N	N	A	N
7	SA	N	A	A	A	SA	A	SA	A	A
8	SA	N	A	N	N	N	A	N	N	A
9	N	N	A	N	SA	SA	A	A	SA	SA
10	N	A	SA	SA	SA	SA	SA	SA	SA	SA
11	SA	A	SA	SA	N	SA	N	N	N	SD
12	N	N	A	A	N	SA	A	SA	N	A
13	A	D	A	A	A	N	A	N	A	N
14	A	A	A	SA	D	SA	N	N	A	SA
15	SA	A	N	N	N	A	A	SA	D	D
16	SA	A	A	A	SA	A	A	SA	A	SA
17	N	SA	N	N	D	SA	A	SA	A	D
18	A	N	SA	A	A	SA	SA	SA	SA	SA
19	A	N	SA	A	N	D	A	D	D	D
20	N	N	A	A	A	SA	N	A	N	SA
21	A	SA	SA	SA	SA	A	SA	N	A	A
22	N	A	SA	A	SA	A	SA	A	A	SA
23	A	N	SA	A	A	A	D	SA	D	D
24	A	N	N	N	D	SA	N	A	N	A
25	A	A	SD	SD	D	SA	D	SA	SA	D
26	A	A	SA	SA	SA	SA	N	D	SA	SA
27	SA	SA	D	D	N	SA	A	A	A	N
28	N	N	A	A	N	A	SA	N	A	SA
29	A	SA	D	D	D	SA	A	A	D	D

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
29	A	SA	D	D	D	SA	A	A	D	D
30	N	SA	SA	SA	N	SA	SA	N	SA	SD
31	N	A	SA	A	SA	A	SA	A	SA	SA
32	A	A	A	A	A	SA	SA	A	SA	A
33	SA	SA	N	SA	A	N	N	A	A	A
34	A	A	SA	A	A	SA	N	SA	N	A
35	A	A	SA	A	A	SA	N	SA	N	A
36	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
37	SA	SA	A	A	A	A	A	SA	N	SA
38	D	SD	N	A	N	SA	A	SA	SA	A
39	SD	SD	SD	SD	SD	N	SD	D	N	SA
40	N	A	A	N	A	A	A	A	N	A
41	A	A	A	A	A	A	A	A	A	A
42	SA	D	A	A	A	A	D	A	N	D
43	SA	A	SA	SA	A	SA	A	N	SA	SA
44	D	A	SA	SA	SA	N	A	SA	N	A
45	N	A	A	N	A	SA	SA	N	A	SA
46	D	N	N	A	A	A	N	A	A	A
47	D	SA	SA	SA	SA	SA	N	N	SD	N
48	A	A	A	A	N	A	A	A	A	SA
49	N	N	SA	A	A	SA	N	N	A	SA
50	A	A	SA	A	A	SA	N	N	SA	SA
51	A	A	A	N	SA	SA	A	N	SA	SA
52	A	A	SA	SA	A	SA	A	SA	SA	A
53	A	A	SA	SA	A	A	A	SA	A	A
54	SA	SA	A	A	A	SA	A	A	A	N
55	N	A	A	A	N	A	A	A	A	A
56	SA	SA	SA	A	A	SA	A	SA	SA	A
57	A	N	N	D	N	N	N	N	A	N

	Fl8	Fl9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
58	SD	D	SA	SA	N	A	N	SA	SA	SA
59	N	A	N	A	A	SA	D	SA	D	SD
60	N	A	SA	A	A	A	N	SA	N	SA
61	SD	SA	D	SA	A	A	SA	A	N	SD
62	SA	D	A	SD	D	A	N	SA	N	SD
63	A	N	SA	SD	N	SA	A	A	D	A
64	SA	D	SA	N	D	SA	N	A	SD	SD
65	SA	A	A	SD	SA	SA	A	SA	N	SA
66	A	D	A	SD	A	N	A	N	N	D
67	D	D	N	D	N	A	A	N	N	N
68	A	A	N	N	N	D	D	N	D	SD
69	N	N	A	A	A	N	A	D	D	SD
70	SA	SA	SA	N	A	A	SA	SA	SA	SA
71	A	A	SA	SA	A	SA	A	A	SA	A
72	A	N	D	N	N	SA	N	SA	SA	SA
73	A	A	N	A	A	A	N	D	D	D
74	D	N	SA	SA	SA	N	N	A	A	N
75	N	D	SA	SA	A	SA	N	D	N	A
76	A	A	SA	D	A	SA	A	A	SA	A
77	SA	A	A	SD	SA	A	N	N	N	N
78	D	D	N	D	N	SD	N	N	D	A
79	N	N	SD	D	D	SD	SD	A	D	N
80	D	D	SA	A	N	A	SA	SA	A	A
81	D	N	SA	A	A	SA	A	SA	SA	SA
82	A	N	N	N	N	N	N	N	N	N
83	D	D	D	SD	D	A	N	SD	N	A
84	A	A	A	A	A	A	A	A	N	N
85	N	A	N	N	N	A	A	A	A	A
86	N	N	A	N	A	N	N	N	N	A

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
85	N	A	N	N	N	A	A	A	A	A
86	N	N	A	N	A	N	N	N	N	A
87	N	N	N	N	N	A	A	A	N	A
88	A	A	A	A	A	A	A	A	A	A
89	A	A	A	A	A	A	A	A	A	A
90	N	N	N	N	N	A	N	A	N	A
91	A	A	A	A	A	A	A	A	A	A
92	A	N	A	A	A	A	A	A	A	A
93	A	A	A	A	A	A	A	A	A	A
94	A	A	A	A	A	A	A	A	A	A
95	A	A	A	A	A	A	A	A	A	A
96	A	A	A	A	A	A	A	A	A	A
97	A	A	A	A	A	A	A	A	A	A
98	A	A	A	A	A	A	A	A	A	A
99	A	A	A	A	A	A	A	A	A	A
100	A	A	A	A	A	A	A	A	A	A
101	A	A	N	A	N	A	N	A	N	N
102	A	A	A	A	A	A	A	A	A	A
103	A	A	A	N	A	A	N	A	N	A
104	A	N	A	N	A	A	A	A	N	A
105	N	N	N	N	N	N	A	N	N	N
106	A	A	N	A	N	A	N	N	A	N
107	A	N	N	A	N	A	A	N	N	A
108	A	N	N	A	A	A	A	A	A	N
109	A	N	A	A	A	A	A	A	A	A
110	SA	A	A	SA	A	D	D	D	D	SA
111	SA	SA	SA	A	SA	SA	A	SA	N	N
112	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
113	SA	SA	SA	N	SA	SA	A	SD	SA	SD

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
113	SA	SA	SA	N	SA	SA	A	SD	SA	SD
114	SA	SA	SA	SA	SA	SA	SA	SA	SA	SD
115	D	A	SA	A	SA	SA	A	SA	N	A
116	SA	A	SA	A	N	SA	A	A	SA	SA
117	A	A	SA	A	D	A	A	N	SA	SA
118	SA	SA	SA	SA	SA	SA	SA	SA	SA	SA
119	SA	N	A	N	SA	SA	A	N	D	SD
120	SA	SA	SA	N	N	SA	A	A	A	A
121	A	A	SA	A	N	SA	A	SA	N	A
122	A	A	SA	SA	A	SA	N	A	A	A
123	A	N	SA	A	A	SA	SA	A	A	A
124	SA	SA	SA	SA	SA	SA	A	SA	SA	SA
125	A	A	A	A	A	SA	N	A	A	A
126	A	A	SA	D	SD	SA	A	A	N	A
127	SA	A	N	D	D	SA	SA	A	SA	SA
128	SA	A	N	D	D	SA	SA	A	SA	SA
129	SA	D	SA	SA	N	SA	SD	SA	SA	SA
130	D	SD	SD	SD	SD	D	D	D	D	D
131	A	N	SA	A	A	A	A	SA	SA	SA
132	SD	SD	SD	D	SD	N	SD	SA	A	SA
133	N	N	SA	N	D	D	A	D	N	D
134	N	N	N	A	A	A	A	SA	SA	A
135	N	D	SA	N	SD	SA	A	A	SA	A
136	D	SD	SA	A	SA	N	D	A	SA	N
137	D	SD	SD	N	SD	A	SA	SA	SA	A
138	N	N	A	A	SA	N	SA	SA	N	D
139	D	N	N	D	A	D	SA	D	D	A
140	D	SD	SA	A	SA	A	A	N	N	A
141	D	N	SA	A	A	A	SA	A	A	SA

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
142	D	D	SA	A	SA	N	N	SA	A	SA
143	D	SD	N	D	A	A	A	A	SA	SA
144	D	SD	SA	N	SA	D	A	SA	A	SA
145	N	SD	SA	A	A	SA	SA	SA	SA	SA
146	N	SD	SA	A	A	N	A	N	N	D
147	SD	N	SA	A	N	SA	SA	SA	A	N
148	SD	N	SA	SA	SA	SA	SA	SA	N	SA
149	D	N	SA	D	SD	SA	D	SA	SA	SA
150	N	D	N	N	A	N	N	A	SA	SA
151	N	D	A	SA	A	SA	A	A	A	A
152	D	N	A	SA	N	D	A	N	A	A
153	N	N	SD	D	D	SD	SD	SA	A	A
154	D	D	D	N	A	A	SA	SD	SD	SD
155	D	N	A	SA	D	A	SA	A	A	N
156	SD	SD	N	A	A	A	A	A	N	SA
157	D	N	SA	A	SA	A	D	SA	N	A
158	D	SD	SD	D	D	SD	D	A	A	SA
159	N	N	SA	N	SA	N	A	SA	A	SA
160	SD	D	A	N	SA	N	SA	SA	N	SA
161	SD	SD	N	N	D	SD	SA	A	N	N
162	N	SD	A	SA	SA	A	N	SA	A	SA
163	D	D	SD	SD	SD	SD	SD	A	A	SA
164	N	N	SA	SA	A	N	SA	SA	SA	SA
165	D	D	A	A	SA	N	SA	N	A	A
166	D	N	N	SD	N	SA	D	SA	SA	N
167	SD	SD	SA	SA	N	SA	SA	SA	SA	SA
168	SD	D	SA	A	A	SA	SA	SA	N	SA
169	SD	D	N	A	A	SA	SA	N	D	D
170	D	SD	A	N	A	N	A	A	A	SA

	FI8	FI9	Perf1	Perf2	Perf3	Perf4	Perf5	Perf6	Perf7	Perf8
171	N	SD	SA	N	N	A	SA	SA	N	SA
172	SD	N	D	A	D	N	SD	N	A	N
173	SD	D	SA	SA	N	D	N	SA	A	SA