

**SALES TERRITORY DESIGN, FIRM CHARACTERISTICS, TRAINING AND  
SALESFORCE PERFORMANCE IN THE DETERGENT MANUFACTURING  
COMPANIES IN KENYA**

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ADMINISTRATION, FACULTY OF BUSINESS AND MANAGEMENT  
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**2023**

## DECLARATION


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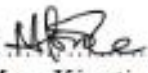
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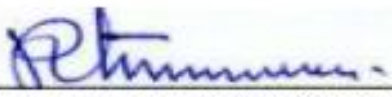
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## **DEDICATION**

I dedicate this project to my wife Jane Nyawira and my children Margaret Wairimu, Grace Wangari, Hope Wanjiku and Pithon Mwangi. Thank you very much for your understanding and patience as I worked on this research. Your encouragement kept me pushing on even when the going appeared very tough. Your support in many ways made me to complete this project. May God bless you abundantly.

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## **ABBREVIATIONS AND ACRONYMS**

<b>ANOVA</b>	Analysis of the Variance
<b>AT</b>	Agency Theory
<b>SFBBP</b>	Salesforce Behavior Based Performance
<b>CV</b>	Coefficient of Variation
<b>CRM</b>	Customer Relationship Management
<b>FC</b>	Firm Characteristics
<b>HCT</b>	Human Capital Theory
<b>KAM</b>	Kenya Association of Manufacturers
<b>KMO</b>	Kaiser Meyer-Olin
<b>MNC</b>	Multinational Corporations
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>SFOBPP</b>	Salesforce Outcome Based Performance
<b>RAT</b>	Resource Advantage Theory
<b>R&amp;D</b>	Research and Development
<b>RBV</b>	Resource Based View
<b>SFP</b>	Salesforce Performance
<b>SFT</b>	Salesforce Training
<b>SME</b>	Small and Medium Enterprise
<b>SPSS</b>	Statistical Package for Social Science
<b>STD</b>	Sales Territory Design
<b>UK</b>	United Kingdom
<b>USD</b>	United States Dollar

## ABSTRACT

The broad objective of the study was to determine the effect of sales territory design on salesforce performance in the detergent manufacturing companies in Kenya. The study further adopted firm characteristics and salesforce training as moderators in the relationship between sales territory design and salesforce performance. These relationships were tested using null hypothesis. A conceptual model was developed, and from it, six hypotheses were formulated to determine both direct and indirect relationships among the variables. Specifically, the study sought to establish the relationship between sales territory design and salesforce performance; the relationship between firm characteristics and salesforce performance; moderating effect of firm characteristics on the relationship between sales territory design and salesforce performance; the relationship between salesforce training and salesforce performance; the moderating effect of salesforce training on the relationship between sales territory design and salesforce performance and the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance. The study had six corresponding null hypotheses. Motivation for the study arose from an observatory experience on detergent sales promotions in the mainstream supermarkets in Kenya. Research problem of the study showed that there is conflicting literature about the extent to which sales territory design can influence salesforce performance. However, extant literature has shown that firm characteristics and training can strengthen the relationship between sales territory design and salesforce performance. The study was anchored on the resource advantage theory; resource based view; human capital theory and agency theory. The study was based on descriptive cross sectional survey because it was testing the relationships quantitatively at one point in time. The population of the study was 557 salespeople in the detergent manufacturing companies who were members of Kenya association of manufacturers. The unit of analysis was the salesperson. The sample size of the study was 326 salespeople. Primary data was collected from the respondents who were chosen through a simple random sampling method by use of structured questionnaires. Data was analyzed by use of linear regression models. The response rate of the study was 74 %. The study met reliability and validity tests. All the hypotheses test results were significant, hence all the null hypotheses were rejected. Findings of the first hypothesis showed that sales territory design influence salesforce performance ( $R^2 = 0.698$ ), findings of the second test of hypothesis showed that firm characteristic influences salesforce performance ( $R^2 = 0.534$ ), findings of the third test of hypothesis showed that firm characteristics strengthens the relationship between sales territory design and salesforce performance ( $R^2 = 0.754$ ); findings of the fourth test of hypothesis showed that training influences salesforce performance ( $R^2 = 0.507$ ); the findings of the fifth test of hypothesis showed that training strengthens the relationship between sales territory design and salesforce performance ( $R^2 = 0.759$ ); the findings of the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance showed that there is significant influence of the variables on salesforce performance ( $R^2 = 0.728$ ). The study findings contributed to theory, policy and practice in the field of marketing. The study limitation was as a result of Covid-19 pandemic that restricted access to the company premises and that made it difficult to directly distribute the questionnaires to the respondents, however measures were taken to manage the limitation by involving the human resource managers and sales managers. The study recommends that a similar study should be done using a longitudinal approach for the generalization of the results.



# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

In today's competitive and dynamic markets, one of the most critical challenges businesses face is how to improve salesforce performance. For many firms, salesforce is the only organizational unit that generates sales revenue and profits (Miao & Evans, 2018). The role of the salesforce has evolved from just implementing the selling function to become a core value creator for both the customers and the sales organizations (Zhang & Glynn, 2019).

Sales Territory Design (STD) opines that a market can be segmented for efficient and enhanced customer access to products. STD has been recognized as a key driver of sales performance (Fatima, 2019; Rajagopal et al., 2019; Piercy et al., 2020). Kwiatek (2019) posits that businesses should divide or split their clients into groups or regions in order to efficiently steer marketing and distribution programs over separate spans and customer bases. The underlying argument is that a well-designed sales territory makes it easier for a firm to balance the tasks and sales opportunities in an area to the salesperson assigned to cover that territory and grow revenue in a competitive business environment (Gordon et al., 2019).

Firm characteristics (FC) have been said to influence management decisions on marketing strategies embraced and how resources and firm objectives are interlinked (Mgeni & Nayak, 2019). Training is important in salesforce performance as it explores inventiveness in the realm of individual selling, providing acumen in securing

competitive advantage by devising enduring client relationships and offering superior after sales service (Verbeke et al., 2021).

The anchoring theory of this study is the Resource-Advantage Theory (RAT), which focuses on the resources a firm has and how it can use the same to attain a competitive position in the market place. The Resource-Advantage theory is based on the premise of market segmentation, firm resources being heterogeneous, a comparative advantage in resources and market position of competitive advantage. Organizations compete for resources that will lead to competitive market place positions for a market segment leading to superior performance. Resource-Advantage theory guided the study in investigating the impact of sales territory design on salesforce performance. Supporting theories include Resource Based View (Penrose, 1959; Barney, 1991), Human Capital theory (Schultz 1959; Becker 1994) and Agency theory (Jensen & Meckling, 1976; Eisenhardt, 1989).

Resource based View (RBV), perceive an organization as combination of assets and capabilities, which if employed in specific ways, can generate competitive advantage leading to superior performance (Peteraf, 1993; Barney, 1991). Penrose (1959) posits that a firm's growth and performance is driven by a firm's internal resources while Conner (1991), opines that a firm's performance is dependent on possession of hard to get inputs and capabilities. RBV guides firm managers on how to use assets to generate competitive advantage. RBV was used to assess the influence of firm characteristics on salesforce performance.

Human Capital Theory (HCT) proposes that training boosts the productivity and income of individuals and their value to an organization. There is a strong view among scholars and practitioners alike that in the current business world the only unmatched competitive resource in organizations is human capital (Dirani, Ardichvili, Cseh, & Zavyalova, 2019). Human capital theory (HCT) emphasizes on the productive wealth manifested in labor, skills and knowledge to contribute to an employee's economic capacity and value to an organization (Garibaldi, 2016). Human capital theory guided the study in the assessment of the influence of training on salesforce performance.

Agency theory addresses the relationship between a principal and an agent in an organization (Jensen & Meckling, 1976; Eisenhardt, 1989). Often, disputes emerge in the agency affiliation since the principal and the agent have different objectives, different risk appetite and do not consistently share information. Agency theory provides a guideline on how the principal can manage the agent's behavior to improve effectiveness and align objectives of the principal and the agent. Agency theory was used to review the performance of the salesforce.

Detergents play a critical role in everyday lives by ensuring personal hygiene, hygiene in homes, schools, institutions and hospitals. The importance of the detergent manufacturing industry has become very pronounced since the start of the Covid-19 pandemic as it has been noted that detergents play a very important role in fighting the disease through hand washing, washing of clothes and cleaning of premises. Detergents also help to achieve cleanliness and hygiene in food processing factories such as dairies, meat and water processing factories, soft drinks and alcoholic beverages.

The key drivers for the detergent manufacturing industry are the increasing global healthcare awareness coupled with government regulations that seek to maintain hygiene and cleanliness in food processing, product manufacturing and in the hospitality sector. The major players in this industry globally comprise Church and Dwight, Colgate-Palmolive, Ecolab, Diversey and Procter and Gamble (all located in United States, but have greater franchise presence in African continent), Henkel based in Germany, Nice Group of China, and United Kingdom based Unilever all have presence in Africa. The detergent industry is extremely competitive and the big enterprises expend billions of shillings to gain and sustain market share (First Research Industry, 2019).

This study was motivated by the need to delineate the key drivers of salesforce performance in the detergent manufacturing industry in Kenya. Salespeople play important roles in the generation of sales and profits and building of relationships between their sales organizations and the customers. Salespeople also contribute in the creation of employment as the firms grow and general economic development and it is therefore important to research on what are the drivers of salesforce performance. The study findings will guide the business leaders on the elements to focus on to maximize on the outputs from their sales people

### **1.1.1 Sales Territory Design**

A sales territory is a cluster of clients and potentials that can be called upon conveniently and economically by a sales agent (Berthon, Pitt, Plangger, & Shapiro, 2020). Sales territories are mostly designed based on political boundaries such as states, provinces or counties and in some cases, several states, provinces or counties maybe combined

to form one sales territory. The design in turn affects sales potential of the resulting sales territories as different states, provinces or counties have different populations and economic capabilities. Sales territories in high income areas are likely to generate more sales as compared to sales territories in low income areas. A sales manager normally considers factors such as market potential, geographical size of the territory, number of accounts in the territory, time required to move from one account to another, competition intensity and impact of electronic commerce (e-commerce) when designing sales territories. These elements are crucial in assessing efficiency and effectiveness of salesforce performance. Companies endeavor to balance their territories since this might increase sales and reduce cost (Zoltners, Sinha & Lorimer, 2020).

Coudounaris (2020) posits that effective sales territory design is important in enabling salespeople to perform well which is reflected in the effectiveness of the organization. He further posits that a territory which is well designed will give more returns as opposed to poorly designed territories since selling efforts that are optimal are as a result of best marketing decisions and thus impacting positively on salespersons' attitudes and eventually performance. Zoltners, Sinha and Lorimer (2020) conceptualize sales territory design using dimensions such as customer coverage, market potential, number of accounts in territory, travel time and reward systems. Grant, Cravens, Low and Moncrief (2020) contend that a sales territory layout is a key influence of a salesperson's chance to enhance his performance, and affects chance to earn extra remuneration in situations where remuneration is connected to territory-level personal achievement.

Sales territory design has been greatly affected by electronic commerce (e-commerce) in the recent past. According to Kutz (2019) e-commerce is the buying and selling of products and services on electronic platforms like the internet. E-commerce has affected all aspects of doing business from launching of new products, marketing to prospective and current customers, business to business buying and selling, online shopping and digital payments (Kutz, 2019). E-commerce has reshaped the design of sales territory as the salesforce can reach more customers, faster and more efficiently meaning the firms may require a smaller salesforce.

The study utilized market potential, geographical size of the territory, number of accounts in the territory, travel time and competition intensity to investigate the influence of sales territory design on salesforce performance adopted from Zoltners, Sinha and Lorimer (2020). Sales territory design is the independent variable in the current study.

### **1.1.2 Firm Characteristics**

Firm characteristics (FC) are features inherent in a company which are categorized in different ways that give an organization a different and distinct form from other companies (Badriyah, Sari & Basri, 2019). They are internal facets that possess the capacity to positively or negatively affect company performance (Hoang, Igel, & Laosirihongthong 2019). They are known to be a company's demographic and management factors which constitute the organization's internal environment and they influence management's decisions in the management of the salesforce.

O'Sullivan, Abela and Hutchinson (2019) contend that the firms' characteristics include how long a firm has been in existence (measured by the duration it has been in operation), size of the firm (measured by number of employee's), ownership structure, firm management, type of customers and markets and sources of capital. Hoang, Igel, and Laosirihongthong (2019) posit that the characteristics of a firm such as its age, size, industry it operates in, adoption and level of a firm's innovations affect firm outcomes. Gathogo and Ragui (2020) assert that a strategic location is important in a firm's reputation. Firms are therefore ready to spend a lot of money on a location that gives them a good corporate image.

Several studies on the relationship between firm characteristics and performance have returned mixed results. Results of a study by Kinoti (2012) on the relationship between firm characteristics and performance in ISO9000 and 14000 certified companies in Kenya showed a moderating effect of firm characteristics on performance. Similarly, a study by Babu and Barzegar (2018) on Iranian firms listed on the Tehran stock exchange established a positive relationship between firm characteristics and firm performance. However, a study by Thuo (2019) on the relationship between customer relationship marketing (CRM) and bank performance in Kenya did not find a direct influence of firm characteristics on performance nor did it moderate the relationship between CRM and marketing productivity.

The influence of firm characteristics on the relationship between sales territory design and salesforce performance in the detergent manufacturing industry is not sufficiently explained by previous studies and therefore the need to carry out more

empirical studies in this area. The study used age of the firm, firm size, ownership, location and manufacturing facilities to probe the impact of firm characteristics on the connection between sales territory design and the salesforce performance as adopted from Hoang, Igel, and Laosirihongthong (2019), Gathogo and Ragui (2020). Firm characteristics was used as a moderating variable in the current study.

### **1.1.3 Salesforce Training**

Salesforce training (SFT) is defined as the process of imparting knowledge to sales people for the purpose of increasing their skills such as selling techniques, team work behavior and time management ability to match market opportunities (Johnson & Marshall, 2020). According to Evans et al. (2020), salesforce training entails a structured method of communicating, describing and imparting good selling skills to salespeople. Further, Miao and Evans (2018) refer to salesforce training as a planned and systematic accretion of information, ideas, and skills that are expected to enhance competence and improve performance of salespeople. Salesforce coaching is undertaken to accelerate productivity, improve morale, reduce turnover, reduce costs, enhance client services and foster superior time and territory management skills (Berthon, Pitt, Plangger & Shapiro, 2020).

There are diverse methods of training used by different organizations to train their salesforce. Johnson and Marshall (2020) argue that the most commonly used ways of instruction are on the job training, personal coaching, classroom training, role play, external seminars and online training. An effective training should incorporate information on the company, products, competition, selling procedures, time



management, report writing and relationship management. Training can be conducted by company employees or hired consultants in different subject matter. Training venues can either be within company premises or external venues and training frequency can range from weekly, monthly, quarterly and annually (Johnson & Marshall, 2020). Training was used as a moderating variable in the current study. Johnson and Marshall (2020) opined that effectiveness of sales force training can be measured by the training methods adopted, the training content, competence of the trainers and the training frequency. These training measures have been adopted in this study for the operationalization of sales force training.

#### **1.1.4 Salesforce Performance**

Salesforce performance is the contribution of the salesforce towards the achievement of an organization's goals and to the effective functioning of the firm (Lam, Ahearne and Ahearne, 2022). Further, Salesforce performance can be defined as a measure of the behaviors and outcomes resulting from an individual's sales activities (Benet-Zepf, Maria-Garcia & Kuster, 2019).

Salesforce performance is important to organizations as it helps to make decisions on promotions, rewards, punishments and salespersons' improvement programs. Salesforce performance metrics are crucial for an effective salesforce performance management process. There are different metrics which are used to measure salesforce performance which include financial versus non-financial metrics, outcome (sales outcomes) versus behavior based (sales behavior) metrics and selling versus non-selling activities (Zalocco et al., 2008).

This study conceptualized salesforce performance as illustrated by Anderson and Oliver (1987) using output and behavior based performances. Output based performance was measured using quantitative metrics such as sales generation, gaining of new accounts, selling of products with high margins, selling of new products to customers, achievement of profit targets, customer visits and achievement of customer satisfaction targets.

Behavior based performance was measured using qualitative metrics which included sales presentations, booking of appointments, preparation of reports, operating within set budgets, provision of after sales service to customers, provision of product brochures to customers, planning skills, presentation skills, carrying out demonstrations to customers, seeking of feedback from their customers and their level of knowledge of the company products. Salesforce performance was the dependent variable in the current study.

### **1.1.5 Detergent Manufacturing Companies in Kenya**

Detergent manufacturing companies in Kenya can be categorized into three groups namely those manufacturing detergents for the house hold use; those manufacturing detergents for commercial use; and those manufacturing detergents for both household and commercial use. The detergent making industry in Kenya is dominated by a few foreign and local players namely Diversey and Ecolab who jointly control about 50% market share of the commercial detergents' market while Unilever at 35% market share, Proctor and Gamble at 25%, Bidco Africa at 5% and Kapa Oil Industries at 6% market share are the key players in the household detergents sector (Consumer Insight, 2018).

The detergent manufacturing sector in Kenya occupies a central role both in terms of providing employment and as a key component of the manufacturing sector which in 2019 contributed 10% of the Kenyan gross domestic product. The sector employs about 3000 employees directly and creates about 5000 jobs indirectly (KAM, 2019). It is an important sector in helping the government to achieve the Big Four Agendas of food security, affordable housing, manufacturing and affordable healthcare to all citizens and in achieving the vision 2030 goals.

Through local manufacturing of detergents, the sector helps the government to achieve one of the big four agenda namely manufacturing. The sector is a key driver in helping the government to achieve the universal health care for all agenda by improving both personal hygiene and the hygiene and quality of manufactured foods which in turn ensures less wastage in food processing which is line with the government's food security agenda. Moreover, the import duty taxes levied on the detergent raw materials and value added taxes on the detergents, is part of the money the government utilizes to implement the affordable houses agenda.

Detergents play an important role in the fight against diseases especially the new Corona virus disease through the washing of hands, linen and facilities. Detergents are key components in achieving cleanliness and hygiene in our homes, hospitals, offices, institutions and food factories. Many of the detergent manufacturing companies use in house salesforce to sell their products and superior service is important to ensure the firm is competitive and to cultivate a lasting association with the clientele (Chunawalla, 2021). One of the key issues that sales and marketing managers in detergent processing firms in Kenya face is how to improve the performance of their salesforce. This

critical yet unsettled issue is particularly pertinent during the current economic decline with rising sales calls costs, decreasing customer interest in taking investment purchasing decisions and heightened competition.

## **1.2 Research Problem**

Several studies have shown that there is a relationship between sales territory design and sales force performance (Fatima, 2019; Evans, McFarland, Dietz, & Jaramillo, 2020; Piercy, Cravens & Morgan, 2020). Other studies have shown contradictory findings that sales territory design can only influence sales force performance through other factors (Ríos & López, 2020; Verbeke et al. 2021). Such debate is worth noting and hence important for this study to further investigate the direct or indirect influence of sales territory design on sales force performance.

Stiff competition in the detergent manufacturing industry has posed a number of performance concerns among stakeholders. Such concerns have forced manufacturers to carry out massive detergent promotions all over Kenya, which would more often be a very expensive business affair. To solve this concern the study predicts that adoption of sales territory design would influence sales force performance albeit stiff competition. Despite this argument, sales territory design has received limited attention by scholars and organizations in their efforts to improve salesforce performance.

Various studies have shown different results on the relationship between sales territory design and salesforce performance. Studies by Zoltners et al. (2020), Adusei, Tenkorang and Tweneboah (2019); Ríos and López (2020) found moderate correlation between the variables. Further, studies by Fatima (2019), Rajagopal et al. (2019), and

Piercy, Cravens and Morgan (2020) on the determinants of salesforce performance established that sales territory design was a key determinant of salesforce performance.

However, studies by Vazzana (2019); Olivares et al. (2019); Kwiatek (2019); Verbeke et al. (2021) and Longino (2019) either found insignificant relationship or no relationship at all between sales territory design and salesforce performance. These inconsistencies in the findings raise research concerns and it is important for this study to investigate further the relationship between sales territory design and salesforce performance for a clearer understanding. This study aimed at introducing moderating variables to enhance the explanatory influence of sales territory design on salesforce performance.

Previous studies have shown the importance of firm characteristics in improving salesforce performance. A study by Ndegwa, Kibera, Munyoki, and Njihia (2020) on marketing mix and firm performance among other variables, found that competitive environment was necessary for firm performance to improve. A study by Kipesha and Koech (2020), on impact of size and age of an organization on firm performance showed that performance was associated with a firm's location, size and age. Literature shows that a firm's age, size and location are aspects of a firm's characteristics (Wang & Lin, 2019). John et al. (2021) in their study on the performance of salespeople in the Nigerian pharmaceutical industry established that financial rewards and company attributes have a positive effect on salesforce performance. The foregoing debate implies that firm characteristics can influence salesforce performance.

Kinoti (2012) did a study on the influence of firm characteristics on performance in ISO 9000 and 14000 certified companies in Kenya. The study found that firm characteristics had a strong positive influence on performance. Another study by Ali et al. (2020), on firm characteristics and corporate finance performance carried out in the Egyptian Stock market established that firm characteristics had a strong significant influence on financial performance. Based on the importance of firm characteristics in improving performance, this study therefore adopted firm characteristics as a moderating variable in the relationship between sales territory design and salesforce performance.

Studies have also shown that training enhances salesforce performance (Zoltners et al., 2020; Olivares et al., 2019; Adusei, Tenkorang & Tweneboah, 2019). Attia et al. (2020) in their study on the impact of training on salesforce performance in Egyptian multinational corporations found that salesforce training had a significant positive relationship with salesforce performance. Samuel (2018) in a study on the impact of staff training and firm performance for drilling companies in Tanzania established that training has positive influence on performance. Based on previous research findings, the importance of training in improving performance cannot be underestimated. This study hence adopted salesforce training as a moderating variable in the relationship between sales territory design and salesforce performance.

Previous studies have applied the variables used in this study for various investigations but no known study to the researcher has used sales territory design, firm characteristics, salesforce training, and salesforce performance in one study. Furthermore majority of the previous studies were carried out in other industries such

as pharmaceutical, home décor and retail sector (Zoltners et al., 2020; Olivares, et al., 2019; Adusei, Tenkorang & Tweneboah, 2019) but none of them has been done in the detergent industry and especially in a developing economy like Kenya. Since each industry has its own dynamics based on the sales territory design, and salesforce performance, this study uniquely investigates the relationship between sales territory design and salesforce performance in the Kenyan context for generalizability.

Extant literature has shown that majority of previous studies that involved salesforce performance and other variables used survey design (Rajagopal, 2019; Piercy et al. 2020; Rutherford, Park & Han, 2020). The current study used a descriptive cross sectional research design and applied linear regression analysis to assess the degree to which the variables are related. Additionally, some of the previous studies (Fatima, 2019, Zoltners, 2020; Verbeke, 2021) used secondary data for their analysis while the current study used primary data.

The research debate on the influence of sales territory design on salesforce performance is inconclusive. Previous studies have not fully explained the relationship between the two variables and the findings have been inconsistent. To mitigate the inconsistencies this study aimed at investigating the relationship between sales territory design and salesforce performance by applying firm characteristics and salesforce training as moderating variables in that relationship. The study consequently seeks to respond to the question, does sales territory design, firm characteristics and salesforce training influence salesforce performance in the detergent manufacturing companies in Kenya?

### **1.3 Study Objectives**

The broad objective of the study was to determine the effect of sales territory design, firm characteristics and training on the salesforce performance in the detergent manufacturing companies in Kenya. Specifically, the study sought to:

- i. Establish the effect of sales territory design on salesforce performance in the detergent manufacturing companies in Kenya.
- ii. Determine the effect of firm characteristics on salesforce performance.
- iii. Determine the effect of firm characteristics on the relationship between sales territory design and salesforce performance.
- iv. Establish the effect of salesforce training on the salesforce performance.
- v. Examine the effect of salesforce training on the relationship between sales territory design and salesforce performance.
- vi. Determine if the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance in the detergent manufacturing firms in Kenya is significant.

### **1.4 Value of the Study**

The outcome of the research study is of value to the policy makers to experience a separate viewpoint on the sector's role in steering the country's hygiene and overall health sector. This study provides important information to policy makers which they will use when coming up with policies that will enhance the design of the sales territories, policies that will help the companies to take advantage of their firm characteristics to generate extra benefits and training policies that will improve salesforce performance in the detergent manufacturing industry specifically and the manufacturing sector in



general. The study findings will also guide the policy makers to come up with policies which will help expand the detergent manufacturing industry and make it more efficient and effective leading to more economic development.

The study provides useful information to the sales managers on the critical components that influence salesforce performance in the detergent manufacturing sector. The study holds practice implications for sales practitioners as they will know how to design appropriate and efficient sales territories which will improve salesforce performance. The study results will also guide sales managers on which firm attributes and training programs can improve the performance of the salesforce.

The findings of this study add in the enhancement, expansion and building of existing theories by providing a framework that links sales territory design, firm characteristics, salesforce training, and salesforce performance. The study findings advanced the Resource Advantage and Agency Theory by providing insight on how sales territory design impacts on salesforce performance. The study outcomes enhanced Resource Based View and Human Capital Theory by availing information on the impact of firm characteristics and training on the relationship between sales territory design and salesforce performance respectively. The results of the study furnish academicians and researchers with a clear understanding of the connection that is in existence among the variables of this study in a combined framework. The study findings make conceptual and theoretical contributions to existing literature on the variables of the study and helps close the gaps. Through this, knowledge is progressed. The study also offers recommendations for future studies.

## **1.5 Chapter Summary**

The chapter deals with introduction to the study giving its background, description of study variables, relevant theories and context of the study. The study variables include sales territory design, firm characteristics, salesforce training and salesforce performance. The chapter discusses the context of the study which is in the detergent manufacturing companies in Kenya. The chapter also discusses the motivation of the study, research problem, research objectives and value of the study. The chapter offers discussions on the research problem in detail highlighting conceptual, contextual and methodological gaps.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter examines key pertinent literature associated with sales territory design as the independent variable, firm characteristics and training as the moderating variables and salesforce performance as the dependent variable. The chapter then presents the theories that anchor this study, a conceptual framework and research hypothesis for the research study and concludes with a synopsis of the literature review and knowledge gaps for the research study.

#### **2.2 Theoretical Foundations of the Study**

The study was anchored on Resource-Advantage theory (RAT), (Hunt & Morgan, 1995, 1996 & 1997), RBV (Penrose, 1959; Barney, 1991; Peteraf, 1993), Human Capital theory (HCT), (Schultz 1959; Becker 1994) and Agency theory (Jensen & Meckling, 1976; Eisenhardt, 1989). The effect of sales territory design on salesforce performance is underpinned on the Resource-Advantage theory while RBV pays attention to firm characteristics and how they affect performance of the salespeople. Human Capital theory helps to find out the outcome of training on the salesforce performance while the performance of the salesforce is underpinned on the Agency theory.

The anchoring theory of this study is the Resource-Advantage theory (segmentation theory) which focuses on the resources a firm has and how it can use the same to attain a competitive position in the market place. Resource-Advantage theory is a good guide to

managers on how they can deal with challenges they face in market segmentation in their pursuit of implementing effective marketing programs.

### **2.2.1 Resource-Advantage Theory**

Resource-Advantage theory was developed by Hunt and Morgan (1995, 1996 & 1997). The theory (also called market segmentation theory) is an interdisciplinary process theory of competition that provides a theoretical base for marketing strategies such as market segmentation and relationship marketing. Market segmentation is a well-recognized strategy in marketing (Hunt, 2002). It is an evolutionary theory of competition. Evolutionary theories require units of selection that are relatively durable (that can exist through long periods of time) and are heritable (can be transmitted to successors). For Resource-Advantage theory, both firms and resources are considered as the heritable units of selection while competition for comparative advantage in resources make up the selection process.

Resource-Advantage theory is based on the premise that for organizations to achieve competitive advantage and superior performance, they should identify and target specific segments of the market and offer specific marketing programs for each of the targeted market segments (Dibb & Simkin, 2018; Hunt, 2002). Market segmentation is the process of identifying groups of customers who have different needs, wants, tastes and preferences. The theory predicts that for the detergent firms to enhance their sales performance, measures should be taken to segment their markets effectively.

Critiques of Resource-Advantage theory (Deligonul & Cavusgil, 1997) argue that it is a relatively new theory which is work in progress and more research needs to be

undertaken to validate its use for different business applications. In the current study, Resource-Advantage theory was used to assess the influence of sales territory design on the performance of the salesforce.

### **2.2.2 Resource Based View**

Resource Based View (RBV) was proposed by Penrose (1959) and further advanced by Barney (1991). The Theory postulates that resources which are treasured, scarce, one-of-a-kind and non-replaceable give a firm a competitive position. Penrose (1959) posits that a firm's growth and performance is driven by a firm's internal resources while Conner (1991) opines that a firm's performance is dependent on possession of hard to get inputs and capabilities.

RBV postulates that the competitiveness of an institution is based on the mixture of distinctive abilities, assets as well as capabilities by means of utilization of resources as well as specialized skills (Penrose, 1959; Wernerfelt, 1984; Barney, 1991; Andersén, 2020). It can then be argued that detergent firms should adopt the combined influence of sales territory design, firm characteristics and sales force training for the sale performance to improve. According to the theory, a firm's competitive position and performance is dependent on the ownership and control of strategic assets (Rumelt, Schendel & Teece, 1991).

RBV has been criticized for the assumption that resources are heterogeneously disseminated across organizations and therefore this can be sustained over time and for using some resource variables leaving out others, for example the notion of variables co-alignment; a capability that could boost performance Kuo (2020). McGuiness and

Morgan (2000) criticized the theory for assuming that managers have total control of firm resources which is not always possible. Moreover, Gibbert (2006) argues that RBV has limited application in firms and Conner (2000) advocates that it is only applicable to big organizations. RBV was used to find out the impact of firm characteristics on sales performance and how firm characteristics affect the relationship between sales territory design and salesforce performance in the current study.

### **2.2.3 Human Capital Theory**

Human Capital theory was developed by Theodore Schultz in 1959 and expounded by Gary Becker (1994). The theory predicts that training boosts productivity and income of individuals and their value to an organization. Human capital is described as productive wealth integrated in skills, knowledge and labor (OECD, 2019) and it depicts any accumulation of knowledge or the intrinsic/gained qualities an individual has that contributes to his or her economic capacity (Garibaldi, 2016).

In a competitive market place, firms try to outdo one another by utilization of resources available to them to remain relevant and deliver acceptable revenues and profits. Studies show that the only unmatched competitive resource in organizations is their human capital (Dirani et al., 2019). This approach is based on the Resource-Based View of the firm that portrays companies as unique blends of human resources and productive resources (Wernerfelt, 1984). Based on the predictions of the theory, it be argued that for sales force performance to improve in the detergent industry, a lot more training should be put in place to reskill the sales force team. Imparting of skills to sales people through training increases outcomes and eventually stimulate their behavioral and outcome performance.

Some critiques of Human Capital theory challenge the view that peoples' learning abilities are of commensurate worth to other resources used in the firm's activities which fails to link learning capacities and the outcome anticipated in the realization of the intended objectives (Ghemawat & Rivkin, 2016); Freeman, 1976). In the current study, Human Capital theory was utilized to probe the consequence of training on the performance of the sales people.

#### **2.2.4 Agency Theory**

The Agency theory was developed by Jensen and Meckling in 1976 and further work on the theory was done by Eisenhardt in 1989. The theory views an organization as being made up of principals and agents. In the current study, the organization is the principal and the salesforce is the agent. According to Jensen and Meckling, (1976) the theory predicts relationships between two parties, where one party (the principal) asks a second party (an agent) to carry out some tasks on their behalf. The aim of both the principal and the agent is utmost utilization, each one of them pushing for his or her own greatest benefits. The target for the principal is high sales and profits, whilst the target for the agent is high remuneration at minimum endeavor.

Agency theory focuses on how the organization can manage the salesforces' behavior to improve their effectiveness and ensure the expectations of the principal and agent are aligned. Anderson and Oliver (1987), contends that sales organizations possess two main approaches by which they can manage the behavior of their salesforce team which are, outcome based and behavior based control systems. In outcome-based approach, sales personnel use individual strategies to achieve their results with minimum

intervention by the management. Salespeople are responsible for their outcomes regardless of how they attain these outcomes and are at liberty to choose the manner of achieving the outcomes. It is expected that by adopting sales territory design, firm characteristics and sales force training, the detergent firms would influence behavioral changes in their salesforce team thereby improving their performance.

Critiques of the Agency theory (Perrow, 1986) argue that it only focuses on the agent in the 'principle and agent relationship' yet at times, the principles are the cause of the problem while Panda and Leepsa (2019) posit that the agent control systems that Agency theory has proposed are often costly and economically ineffective. In the current study, agency theory was used to measure the performance of the salesforce.

### **2.3 Sales Territory Design and Salesforce Performance**

According to Fatima (2019), contentment of salesperson with sales territory design positively influences salesforce performance which in turn has a positive effect on sales organization efficiency. On the other hand, Zoltners et al. (2019) argue that poorly designed sales territories lead to poor sales as the salesforce spend too much time traveling from one account to another while salesforce in territories with too few accounts will spend time on nonproductive activities and in the long run may feel demotivated due to low sales and commissions and might end up exiting the business leading to lost sales.

Grant et al. (2020) found that contentment with sales territory design had positive impact on sales team motivation, job satisfaction and sales performance while Pahlevi, Setyanto and Laksana (2020) on the characteristics of sales force performance analyzed



using Partial Least Square show that Salesforce competence, sales management control, and sales territory design have positive effect on salesforce performance. The intensity of competition can have a negative impact on salesforce performance. From the reviewed literature it is evidenced that majority of the studies contend that sales territory design influences salesforce performance positively. The study tested the effect of sales territory design on salesforce performance in the background of a developing economy such as Kenya.

#### **2.4 Firm Characteristics and Salesforce Performance**

Studies have shown different findings regarding the relationship between firm characteristics and performance. Hoang, Igel, and Laosirihongthong (2019) posit that the characteristics of a firm such as its age, size, industry it operates in, adoption and level of a firm's innovations affect firm outcomes. Gathogo and Ragui (2020) assert that a strategic location is important in a firm's reputation. Firms are therefore ready to spend a lot of money on a location that gives them a good corporate image. A study by Kinoti (2012) on the effect of firm characteristics on performance in ISO 9000 and 14000 accredited organizations in Kenya found out a moderating effect of firm characteristics on performance. Further, Olowokudejo et al. (2020) in their study in the insurance industry in Nigeria established that firm characteristics have a positive influence on performance.

Furthermore, a study by Babu and Barzegeer (2018) on firm ownership and performance among the fifty biggest firms listed on the Tehran stock exchange found a positive influence of firm ownership on performance. However, a study by Thuo (2019) on the

influence of firm characteristics on performance in banks operating in Kenya found out that firm characteristics did not influence performance.

## **2.5 Sales Territory Design, Firm Characteristics and Salesforce Performance**

Studies have indicated that there is a relationship between sales territory design and salesforce performance. However, it was shown that firm characteristics could influence further that relationship. Firm characteristics are company attributes that have the ability to positively or negatively impact salesforce performance. Zahra, Ireland and Hitt (2000) postulate that the duration a firm has existed might affect its span of business ventures, its performance and profitability of its activities. The age of a firm and performance interrelationship has been recognized in the literature (Waithaka, 2020). Older firms normally exhibit greater performance because they are more knowledgeable, possess the advantage of experience, and do not suffer from the challenges of being new (Schoenherr, 2018).

Kotler and Armstrong (2020), state that venue is important as a way of communicating performance's identity and that firms expend huge amounts of capital to insure that their venue is ideal for their clients while Misra et al. (2015) posit that bigger firms have better reputation, stronger brands, bigger marketing budgets and are more efficient and as a result their salesforce exhibit better performance. These key firm characteristics therefore allow firms to have superior sales territory design to generate superior sales force performance relative to smaller organizations.

## **2.6 Training and Salesforce Performance**

Studies have shown that sales force training can influence salesforce performance. Attia et al. (2020) in their study on the impact of training on salesforce performance in Egyptian multinational corporations found that salesforce training had a significant positive relationship with salesforce performance. Another study by Samuel (2018) on the impact of staff training and firm performance for drilling companies in Tanzania established that training has positive influence on performance. Furthermore, a study by Okolo et al. (2019) on the influence of training on salesforce performance in a vehicle manufacturing company in Nigeria established that training had a positive influence on salesforce performance.

Rahman, Zailani, Abdullah-Al-Mamun, Ameziane, and Hazeez (2019) conducted a study on the impact of salesperson training on organizational outcomes. Data was gathered by surveying 238 salespeople in the Malaysian major retail shopping malls. Data was analyzed using the partial least square technique. Training has significant impact on salesperson's experience (salesperson's knowledge and salesperson's skills), while salesperson's experience has positive impact on the three categories of organizational outcomes namely productivity, effectiveness and performance. However, other studies have shown that training can lead to poor performance. A study by Ukandu and Ukpere (2020) in the fast food industry in South Africa established that poor and ineffective training leads to poor staff performance.

## **2.7 Sales Territory Design, Training and Salesforce Performance**

Sales territory design can affect salesforce performance either positively or negatively. According to Zoltners and Sinha (2015), a well-designed sales territory leads to good

salesforce performance, as the salesforce is able to reach the customers easily and optimize on selling time at minimal costs. A poorly designed sales territory is expensive to service both in terms of time and cost and may be demotivating to the salesforce especially where accounts are widely dispersed and have low sales potential.

According to Basir et al. (2019) interpersonal skills derived from training programs positively influence salesperson performance while Haji (2020) posit that the most compelling attributes that contributes to sales people's poor performance can be tackled by training and that sales manager's judged sales training to be among the critical influences in enhancing salesforce performance. However, Sunardi, Widyarini and Tjakraatmadja (2020) posit that salesforce training program does not necessarily enhance employees' behavior style while Groza, Locander and Howlett (2019) argues that the mindset of sales people are not necessarily from training but other factors like experience, talent and aggressiveness that leads to sales performance. Training of the salesforce is anticipated to affect the link between sales territory design and salesforce performance by improving the skill level of the salesforce leading to improved performance.

## **2.8 Sales Territory Design, Firm Characteristics, Training and Salesforce Performance**

The choice of how sales territory design is developed and managed in a company with certain firm characteristics can be well informed by factors like how well salespeople are equipped with necessary knowledge and skills by training, which eventually results in improved salesforce performance. It therefore follows that if a firm chooses best

management of sales territory design and invests in the training of the salesforce, then improved salesforce performance will be inevitable (Johnson & Marshall, 2020; Verbeke, Dietz & Verwaal, 2021).

Plouffe, Hurland and Wachner (2019) identifies some drivers of salesforce performance as salespeople training programs, firm characteristics, and how sales territories are designed by the sales managers. Further Miao and Evans (2018), argue that the interactive impact of salesforce management mechanisms on salesforce performance is dependent on sales territory design effectiveness and how sales people are trained. Furthermore, Shannahan, Bush and Shannahan (2020) argue that coaching of sales people brings about the competitiveness which enables them to handle the customers under their territories efficiently leading to effectiveness and improved performance.

## **2.9 Summary of Knowledge Gaps**

A review of extant literature signifies that the notions in this study have been considered in several previous studies. Nonetheless, there are still unresolved areas that comprise conceptual, contextual and methodological knowledge gaps. Especially, the variables appear to have been studied over a period of time but controversies abound on the relationships while as other relationships have not been tried empirically. A synopsis of knowledge gaps identified is shown in Table 2.1

**Table 2.1: Summary of Knowledge Gaps**

<b>Study</b>	<b>Area of study</b>	<b>Methodology</b>	<b>Findings</b>	<b>Knowledge gap</b>	<b>How current study intend to close the knowledge gap</b>
Gitau, Oboko, Litondo & Gakuu (2019).	Adoption of sales force computerization system and sales performance: The case of consumer goods firms in Nairobi, Kenya.	A descriptive research survey	Salesforce automation, has a positive impact on salesforce performance	The study focused on the effect of salesforce automation on salesforce performance in the consumer goods firms in Nairobi. There is a contextual gap	This study tested the relationship between sales territory design and sales force performance with role of training and firm characteristics in the detergent manufacturing companies in Kenya
Olivares, Garcia, Loranca, Rosas & Flores, (2019)	Studied the Salesforce deployment and territory partitioning with multiple objectives for a Mexican company with 3800 customers divided into 9 regions and served by 40 sales people.	Epsilon - Constraint method with mixed integer programming	The territory re-design needs to be related to a routing problem for optimum salesforce performance	Investigated how territory partitioning leads to multiple objectives in Mexican context but did not take into consideration how training and characteristics of the firm can enhance sales force performance	This study examined the effect of sales territory design on salespeople' s performance and the effect firm characteristics and salesforce training have on this relationship in the detergent manufacturing companies in Kenya.
Rajagopal et al (2019)	Measuring of salesforce performance in the home décor market in Mexico	A survey from 258 sales people	Territory design, compensation and volume of sales influence salesforce performance	Focused only on the home décor market in Mexico. There is a contextual gap.	Current study addressed the salesforce performance in the detergent industry in Kenya

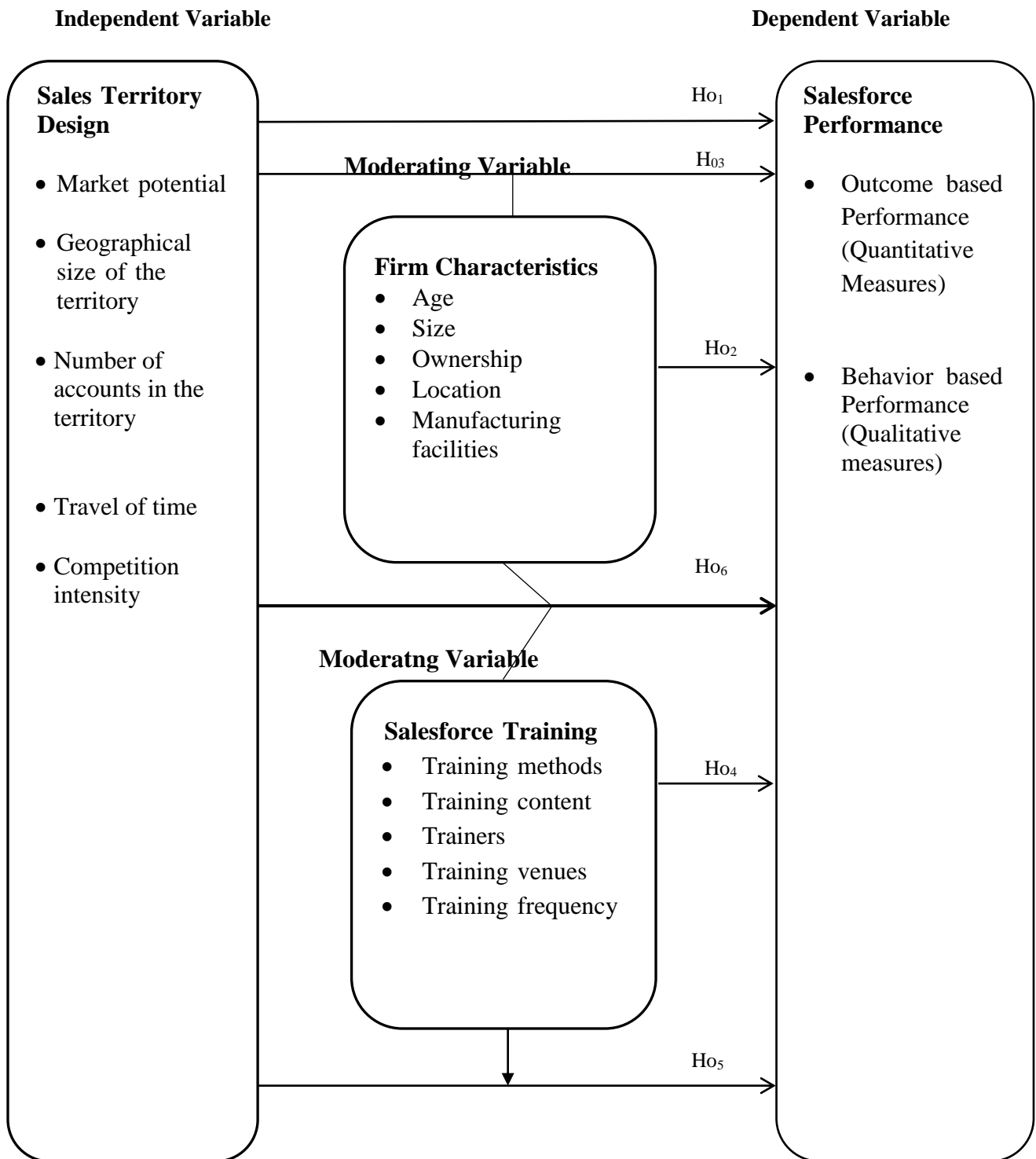
Fatima (2019)	Impact of sales territory design on salesforce performance. A review of studies	A desk top review of 18 studies between the period 1993 - 2014	Sales territory design is a key determinant of salesforce performance and sales organization effectiveness.	It is desktop review with no data collected from respondents on the variables under investigation. It used secondary data.	Study evaluated how STD, FC and training affect salesforce performance in the detergent manufacturing firms in Kenya using primary data collected from the respondents
Longino (2019)	The effect of sales management control, territory design, salesforce performance and sales organization efficiency in the pharmaceutical sector in USA	Quantitative study where data was gathered from field sales managers	Good salesforce performance has a positive influence in sales organization efficiency.	The study findings are limited to the pharmaceutical firms in USA and data was collected from field managers and not the salespeople	This study investigated the influence of sales territory design, firm characteristics and training on sales force performance in the detergent industry in Kenya
Baier, Carballo, Chang, Lu, Mojsilovic, Richard & Varshney, (2020)	Studied Sales-force performance analytics and optimization at IBM in USA	A quantitative analytics and optimization approach	Sales force performance has distinctly gained from senior executive backing and sponsorship, which is important for the success of large-scale business remodeling.	Study limited to performance of sales force of large-scale business transformation and did not consider the effect of sales territory design on salesforce performance	The current study investigated the role of firm characteristics and training on the influence of STD and salesforce performance in the detergent manufacturing companies in Kenya
John et al (2020)	Improving sales performance through salesforce motivation strategies in the pharmaceutical industry in Nigeria	A survey of 120 salespeople in pharmaceutical industry in Nigeria	Financial reward increases sales performance, firm characteristics has a positive impact on salesforce performance.	The findings of the study are limited to the performance of the salespeople in the pharmaceutical sector in Nigeria. There is a contextual gap.	Present study investigates the effect of sales territory design, firm characteristics and training on salesforce performance in the detergent sector in Kenya

Zoltners, Sinha & Lorimer (2020)	Sizing the salesforce and designing sales territories for results across several industries in USA	Desktop review from peer reviewed journals	The sales territories should be designed to march the size of the salesforce and the market potential for maximum results.	It is desktop review with no data collected from respondents on the variables under investigation. It used secondary data.	Current study investigated the influence of sales territory design on performance of the sales team in the detergent manufacturing firms in Kenya using primary data..
Rutherford et al (2020)	Factors that influence good salesforce performance among Korean sales people	Survey among 213 Korean retail stores sales employees	Perceived organizational support has a positive effect on salesforce performance	Focused on sales performance of retail stores sales people in Korea. There is contextual gap	Need to replicate the study in the context of detergent manufacturing companies in Kenya
Piercy et al (2020)	The effect of sales management control, territory design, salesforce performance and organizational effectiveness in British firms	A survey among 144 sales people in British firms	Good Territory design and field sales managers have a big positive influence on salesforce performance	Focused on factors influencing performance of salespeople in British firms. Need to replicate the same in a developing economy such as Kenya	Study established the impact of Sales territory design, Firm characteristics and training on salesforce performance in detergent processing companies in Kenya
Verbeke et al (2021)	Determinants of salespeople ' s performance	Meta-analysis of empirical research models for 25 years from 1983 to 2008	Key drivers are selling associated knowledge, extent of adaptness, role ambiguity, cognitive aptitude and work involvement	Study was founded on secondary data and focused only on the performance of salespeople.	Current study used primary data and includes more variables -STD, Firm characteristics and training and their influence on salesforce performance



## **2.10 Conceptual Framework and Hypotheses**

The variable relationships were expressed to show a linear correlation. The direct relationship was regressed between sales territory design and salesforce performance and that was depicted by H<sub>01</sub>. The study also regressed a direct relationship between firm characteristics and salesforce performance as depicted by H<sub>02</sub>. Test of indirect relationship between sales territory design, firm characteristics and salesforce performance was shown by H<sub>03</sub>. Test of direct relationship between salesforce training and salesforce performance was shown by H<sub>04</sub>. Indirect relationship between sales territory design, salesforce training and salesforce performance was tested as depicted by H<sub>05</sub>. The joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance was tested as depicted as shown by H<sub>06</sub>. These linear relationships are presented in the conceptual framework in figure 2.1.



**Figure 2.1: Conceptual Framework**

The study tested the following research hypotheses.

- H<sub>01</sub>: There is no significant relationship between sales territory design and salesforce Performance in detergent manufacturing companies in Kenya.
- H<sub>02</sub>: There is no significant relationship between firm characteristics and salesforce performance.
- H<sub>03</sub>: Firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance.
- H<sub>04</sub>: There is no significant relationship between salesforce training and salesforce performance.
- H<sub>05</sub>: Salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance.
- H<sub>06</sub>: The joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant.

## **2.11 Chapter Summary**

The chapter presented the theoretical foundations of the study. The anchoring theory was Resource Advantage theory supported by Resource Based theory, Human Capital theory and Agency theory. The chapter then presented a summary of relationships between the study variables namely sales territory design, firm characteristics, salesforce training and salesforce performance. The chapter further documented a summary of knowledge gaps, conceptual framework and hypotheses for the study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter pays attention to the methodology that was applied in the study. The chapter discusses the research philosophy, research design, and population of the study, data collection, reliability and validity tests, and operationalization of the study variables and data analysis methods.

#### **3.2 Research Philosophy**

Two of the major approaches to research design are phenomenology and positivism. Phenomenology research entails collecting huge quantities of worthy information founded on the belief in the merit of comprehending the experiences and circumstances of a small number of respondents (Veal, 2015). The vigor of phenomenology undertaking is that it allows researchers to attain a depth of understanding of the events and aspects researched on. Phenomenology emphasizes on direct experience and explains the ideas as they are and not as the researcher deems them to be. Phenomenology gives more value to cognition and takes the position that it is possible to probe human mind to provide meaning to observable behaviors. Phenomenological inquiry is wholly instead of redundistic. Phenomenology is used for theory building.

Positivism is a practical, quantitative method by which hypothesis testing is applied to detect interrelationships and characteristics discernible to the actual population (Williams, 2020). The positivism perspective argues that scientific propositions are trustworthy only when they have been confirmed by empirical trials. According to

positivists, human minds are unscientific and must not be the focus of any meaningful scientific study. The focus must be on that which can be realized in the actual world scenario. The positivism approach therefore posits that the researcher is independent from whatever observation is being undertaken.

Positivism strives to achieve predictive and explanatory knowledge of the outside world via development of theories which comprise of remarkably general assertions expressing the typical associations (Uddin & Hamiduzzaman, 2019). Positivism is founded on reality, validity and values of reason and emphasizes on information collected via firsthand encounter, experience and measured practically by use of quantitative techniques and statistical testing. Positivism approach is quite suitable for studies in social sciences. The study followed the positivism approach as hypotheses have been formulated and analyzed to empirically test the relationships between the variables and the results were generalized. The research was part of theory testing and therefore positivism approach was most suitable.

### **3.3 Research Design**

The study used a descriptive cross sectional design. Queiros, Faria and Almeida (2019), referred descriptive studies as investigations whose aim is to describe the phenomena under inquiry by establishing the characteristics associated with the subject population. In addition, descriptive studies are useful when the researcher intends to establish the order and magnitude of the links among variables. Descriptive design was chosen because the study's aim was to establish relationships between the variables in this study namely: sales territory design, firm characteristics, training and salesforce performance at one particular time and moment.

According to Zikmund (2018), cross-sectional studies are those in which data is collected once from a respondent, rather than repeatedly. Authors such as Creswell (2020), Queiros, Faria and Almeida (2019) and Babbie (2019) suggest that many studies in the discipline of marketing and business research are descriptive and cross-sectional in nature. In addition, the cross sectional design is preferred because it enables collection of data from a pool of participants with varied characteristics and an assessment of relationships between variables in order to prove or disprove assumptions about the phenomena under inquiry.

### **3.4 Population of the Study**

According to Saunders et al. (2017), the population of study is the whole unit from where the samples are picked for analysis. The population of the study was the salesforce in the detergent producing companies in Kenya who are members of Kenya Association of Manufacturers (KAM), (Appendix V). There were 557 salespeople spread across the 40 detergent manufacturing companies in Kenya. Respondents who took part in the study were selected from the firms' salesforce data base as provided by the sales managers or human resources managers of the respective firms.

**Table 3.1: Population of Salesforce Distribution in the Detergent Manufacturing Companies in Kenya**

<b>S/No</b>	<b>Name of Company</b>	<b>No of salespeople</b>	<b>Percent (%)</b>
1	Bidco Africa Ltd	42	7.54
2	Blue Ring Products Ltd	5	0.90
3	Buyline Products Ltd	10	1.79
4	Canon Chemicals Ltd	10	1.79
5	Chandaria Industries Ltd	30	5.36
6	Chemkleen Products	1	0.18
7	Colgate K Ltd	14	2.51
8	Diversey Eastern & Central Africa Ltd	27	4.85
9	Ecolab East Africa (K) Ltd	21	3.77
10	Elex Products Ltd	5	0.90
11	Haco Tiger Brands	18	3.23
12	Henkel Chemicals Ltd	11	1.98
13	Henkel Kenya Ltd	19	3.41
14	Hychem Hygiene & Healthcare Solutions Ltd	6	1.08
15	Impact Chemicals Ltd	4	0.72
16	Jet Chemicals (Kenya) Ltd	5	0.90
17	Kapa Oil Refineries Ltd	38	6.82
18	KIM Fay East Africa Ltd	12	2.15
19	Magic Chemicals	4	0.72
20	Menengai Oil Refineries Ltd	18	3.23
21	Nemchem International (K) Ltd	4	0.72
22	Neru (K) Ltd	10	1.79
23	Odex Chemicals	12	2.15
24	Polysynthetic East Africa Ltd	2	0.36
25	Pride Industries Ltd	8	1.44
26	Pwani Oil Products Ltd	16	2.87
27	Proctor & Gamble (EA) Ltd	50	8.98
28	PZ Cussons East Africa Ltd	10	1.79
29	Ramji Haribhai Devani Ltd	13	2.33
30	Reckitt Benckiser (EA) Ltd	10	1.79
31	Robico Chemicals Ltd	8	1.44
32	Stalite Systems Co Ltd	3	0.54
33	Soilex Prosolve Ltd	5	0.90
34	Sudi Chemical Industries Ltd	4	0.72
35	Super Brites Ltd	4	0.72
36	Spectra Chemicals (K) Ltd	5	0.90
37	Trade House Africa Ltd	5	0.90
38	Tropical Brands (Africa) Ltd	17	3.05
39	Unilever East Africa	56	10.05
40	Vivek Investments Ltd	15	2.69
	<b>Total Population of Salesforce</b>	<b>557</b>	<b>100</b>

**Source: Kenya Association of Manufacturers and Researcher (2023)**

### 3.5 Sample Design

A sales person was used as a unit of analysis in this study. The salesforce respondents were chosen by use of simple random sampling. The sample size was established based on two factors: the level of accuracy (confidence interval) and the acceptable margin of error (confidence level). The researcher chose a confidence interval of  $\pm 5\%$  in line with most business and social sciences research which use alpha level of 0.05 (Israel, 1992). Based on these reasons therefore, sales people' sample size was calculated utilizing the formula for finite population as suggested by Yamane (1967) quoted in Israel (1992). At 95% confidence and 0.05 alpha levels.

$$n = \frac{N}{1 + N(e^2)}$$

Where:

N = desired sample size

N = Population

e = alpha level

$$n = \underline{557}$$

$1 + 557(0.05)^2 = 233$  sales people was the needed sample size.

To take care of those who might not respond, Israel (1992) recommends that 10% more of the salesforce should be added to the sample size to compensate for those targeted respondents the researcher may be unable to contact, and a further 30% increase to cater for those who do not respond even though they are contacted. As such the adjusted sample size to cater for these situations was:  $40\% * 233 = 93$  hence  $233 + 93 = 326$  sales people. Table 3.1 show sample representation from each company and the sample size.



**Table 3.2: Sample Sizes from the Detergent Manufacturing Companies in Kenya**

S/No	Name of Company	No of salespeople	Percent (%)	Sample size from each firm
1	Bidco Africa Ltd	42	7.54	25
2	Blue Ring Products Ltd	5	0.90	3
3	Buyline Products Ltd	10	1.79	6
4	Canon Chemicals Ltd	10	1.79	6
5	Chandaria Industries Ltd	30	5.36	18
6	Chemkleen Products	1	0.18	1
7	Colgate K Ltd	14	2.51	8
8	Diversey Eastern & Central Africa Ltd	27	4.85	16
9	Ecolab East Africa (K) Ltd	21	3.77	12
10	Elex Products Ltd	5	0.90	3
11	Haco Tiger Brands	18	3.28	11
12	Henkel Chemicals Ltd	11	1.98	6
13	Henkel Kenya Ltd	19	3.41	11
14	Hychem Hygiene & Healthcare Solutions Ltd	6	1.08	4
15	Impact Chemicals Ltd	4	0.72	2
16	Jet Chemicals (Kenya) Ltd	5	0.90	3
17	Kapa Oil Refineries Ltd	38	6.82	22
18	KIM Fay East Africa Ltd	12	2.15	7
19	Magic Chemicals	4	0.72	2
20	Menengai Oil Refineries Ltd	18	3.23	11
21	Nemchem International (K) Ltd	4	0.72	2
22	Neru (K) Ltd	10	1.79	6
23	Odex Chemicals	12	2.15	7
24	Polysynthetic East Africa Ltd	2	0.36	1
25	Pride Industries Ltd	8	1.44	5
26	Pwani Oil Products Ltd	16	2.87	9
27	Proctor & Gamble (EA) Ltd	50	8.98	28
28	PZ Cussons East Africa Ltd	10	1.79	6
29	Ramji Haribhai Devani Ltd	13	2.33	8
30	Reckitt Benckiser (EA) Ltd	10	1.79	6
31	Robico Chemicals Ltd	8	1.44	5
32	Stalite Systems Co Ltd	3	0.54	2
33	Soilex Prosolve Ltd	5	0.90	3
34	Sudi Chemical Industries Ltd	4	0.72	2
35	Super Brites Ltd	4	0.72	2
36	Spectra Chemicals (K) Ltd	5	0.90	3
37	Trade House Africa Ltd	5	0.90	3
38	Tropical Brands (Africa) Ltd	17	3.05	10
39	Unilever East Africa	56	10.05	33
40	Vivek Investments Ltd	15	2.69	9
	<b>Total no of Salesforce</b>	<b>557</b>	<b>100</b>	<b>326</b>

**Source: Kenya Association of Manufacturers and Researcher (2023)**

### **3.6 Data Collection**

The study utilized primary data, which was collected by administering structured questionnaires. The questionnaires were self-administered using the drop and pick method. Respondents were required to state the degree to which they were in agreement with the statements which described the situation in their firm.

The questionnaire had 119 statements, which were utilized in the data collection from the salesforce using a five point Likert scale ranging from very small extent (1) to a very large extent (5). The questionnaire was divided into five sections. Section A obtained data on the background information, section B on sales territory design, section C was dedicated to firm characteristics, section D collected data on salesforce training while section E collected information on salesforce performance. Similar studies which have used semi structured questionnaires include Ndubisi (2017); Velnampy and Sivesan, (2020); Leverin and Lijander, (2016).

### **3.7 Reliability and Validity Tests**

Bryman and Bell (2020) suggest that a good measurement tool is one which passes the test on validity (degree to which the questions actually measure what the researcher wishes to measure), reliability (degree to which the measurement procedure is consistently producing similar results on repeated attempts, and is devoid of random error) and practicality (degree to which the measurement tool is economical to use, convenient or easy to administer, and results can be interpreted by other persons other than the measurement tool designer). The researcher tested for both reliability and validity of the measurement tools.

### **3.7.1 Reliability Tests**

Reliability is a measure of the level to which a research tool produces unvarying results or data after several attempts (McCusker & Gunaydin, 2019). The reliability of a measure demonstrates the degree to which it is without a bias and consequently ensures same measurement across time and the different elements in the research tool (Zhang & Wildemuth, 2019). The questionnaire was pilot tested for reliability by computation of the Cronbach alpha. The Cronbach alpha was calculated to determine the internal consistency or average correlation of components in the study and this measured its reliability. The alpha value can range from zero (meaning no internal consistency) to one (indicating complete internal consistency).

Various writers advocate for various cut off points for reliability, Gliem and Gliem, (2018) propose that Cronbach value of 0.7 is deemed dependable whilst Cooper and Schindler (2020) recommend a span of 0.7 to 0.9 Cronbach's alpha coefficient to be ideal for reliability test, whilst Asikhia (2019) proposes a reliability cut off point of 0.6. On their part, Hair et al. (2020) and Bagozzi and Yi (2020) reason that a value of 0.5 to be the minimum reliability cut off point requisite for additional analysis. The cut off point for the Cronbach alpha coefficient for this study was 0.7. This is in line with recommendations by Gliem and Gliem (2018) that reliability score of 0.7 or greater shows good reliability for an instrument.

### **3.7.2 Validity Tests**

Validity is the extent to which the analyzed data is the accurate representation of the manifestation of the study. It depicts the logic that a research instrument must produce

results exactly to measure the expected results (Zikmund, Babin, Carr & Griffin, 2019). The understanding of validity also follows how a sample of items can represent the constructs of interest. Face validity was enhanced through pretesting the questionnaire on thirty three respondents from the target firms' selected using convenient sampling method. The thirty three respondents did not take part in the final data exercise to avoid bias in their responses. According to Polit and Beck (2016), the purpose of pretesting is to identify whether the instrument is capable of providing all the information as expected by the analyst.

Content validity examines the level to which all aspects of a concept are represented. To improve the content validity, suggestions from the supervisors and faculty team during the presentations was incorporated in the subject under study. Exploratory factor analysis by principle factors with Varimax rotation was applied to test for construct validity. Factor loadings of 0.5 and above was considered as acceptable, (Hair et al., 2020). To improve criterion validity, questions used in previous studies were adopted and modified to suit current study.

### **3.8 Operationalization of the Study Variables**

The variables are operationalized to enable quantitative measurement. Operationalization helps to interpret theoretical propositions into observable behavior in order to be measured (Sekaran, 2015). The dependent variable is salesforce performance and the independent variable is sales territory design. Firm characteristics and training of the salesforce are moderating variables. The variables are operationalized in accordance to the aims of the study as summarized in Table 3.3.

**Table 3.3: Operationalization of the Study Variables**

Variable	Operational definition	Supporting Literature	Measurement	Questionnaire items
Salesforce Performance  (Dependent Variable)	<p>Outcome based performance</p> <ul style="list-style-type: none"> <li>• Sales targets</li> <li>• Gaining of new accounts</li> <li>• Profit margins</li> <li>• Selling of new products</li> <li>• Customer visits</li> <li>• Customer satisfaction</li> </ul> <p>Behavior based performance</p> <ul style="list-style-type: none"> <li>• Sales presentations</li> <li>• Booking of appointments</li> <li>• Preparation of reports</li> <li>• Operating within budget</li> <li>• Provision of after sales service</li> <li>• Provision of brochures to customers</li> <li>• Planning skills.</li> <li>• Presentation skills</li> <li>• Product demos</li> <li>• Seeking of feedback from managers</li> <li>• Knowledge of company products</li> </ul>	Benet-Zepf, Marin-Garcia, and Küster (2019) Groza, Locander and Howlett (2019), Malek, Sarin and Jaworski (2018) Kumar, Sunder, and Leone (2020) Schmelz (2019) Zallico et al.(2009) Anderson and Oliver (1987)	5 point Likert type rating scale Multiple choice questions	Section E
Sales Territory Design  (Independent Variable)	<ul style="list-style-type: none"> <li>• Market potential</li> <li>• Geographical size of territory</li> <li>• Number of accounts in territory</li> <li>• Travel time</li> <li>• Competition intensity</li> </ul>	Fatima (2019) Zoltners, Sinha and Lorimer (2020) Berthon, Pitt, Plangger and Shapiro (2020). Piercy, Low and Cravens (2020),	5 point Likert type rating scale Multiple choice questions	Section B
Salesforce Training  (Moderating)	<ul style="list-style-type: none"> <li>• Training methods</li> <li>• Training content</li> <li>• Trainers</li> <li>• Training venues</li> </ul>	Johnson and Marshall (2020) Miao, Kenneth and Evans (2018) Berthon, Pitt, Plangger and Shapiro (2020)	5 point Likert type rating scale Multiple choice	Section D

Variable)	• Training frequency	Roman, Ruiz and Jose (2002) Berman and Perreault (1984)	questions	
Firm characteristics (Moderating variable)	• Age • Size • Ownership • Location • Manufacturing facilities	Badriyah, Sari and Basri (2019) Hoang, Igel and Laosirihongthong (2019), Gathogo and Ragui (2020), Kiganane, Bwisa and Kihoro (2020)	5 point Likert type rating scale Multiple choice questions	Section C

**Source: Researcher (2023).**

### **3.9 Data Analysis**

Both descriptive and inferential statistics were used to analyse respondents' views and test for variable relationships respectively. Simple linear regression, stepwise and multiple regression analyses were used to determine the extent to which the variables are related. According to Robson (2020) this is deemed to be an appropriate method of analysis since it determines the influence of a single dependent variable and various independent variables on the dependent variable.

To test hypothesis one, two and four, a simple regression analysis was applied. In testing the moderating impact of firm characteristics and training exhibited by hypothesis three and five, hierarchical regression analysis method was used in line with recommendation by Baron and Kenny (1986). A multiple regression analysis was used to test the combined impact as presented by hypothesis six. Composite scores were used and arrived at using the average score of the variable indicators. All the statistical tests were undertaken at 95% confidence level.

Results of hypotheses test were interpreted using t- test (individual significance), F- test (goodness of fit),  $R^2$  (overall significance) and p-values for decision making. Prior to regression and correlation analysis tests, diagnostic tests such as linearity (scatter plots), normality (Shapiro Wilk test), multi-collinearity (VIF and tolerance), and homoscedasticity (Levene test) were undertaken to confirm the assumptions of the regression model. The analytical model as well as their corresponding objectives and hypotheses are presented in Table 3.4.

**Table 3.4: Summary of Objectives, Hypotheses and Analytical Model**

<b>Objective</b>	<b>Hypothesis</b>	<b>Analytical model</b>	<b>Interpretation</b>
To establish the relationship between sales territory design and salesforce performance.	H <sub>01</sub> : Sales territory design has no statistically significant influence on salesforce performance	Simple Regression Analysis $SFP_1 = \alpha + \beta_1 STD_1 + \varepsilon_1$ SFP <sub>1</sub> = Salesforce Performance. $\alpha$ = constant (intercept) $\beta_1$ = regression coefficient STD <sub>1</sub> = sales territory design $\varepsilon_1$ = Error term	R <sup>2</sup> = % change in variability.  F statistic = Goodness of fit  P value = significance
To establish the relationship between firm characteristics and salesforce performance	H <sub>02</sub> : Firm characteristics have no statistically significant influence on salesforce performance	Simple Regression Analysis $SFP_2 = \alpha + \beta_1 FC + \varepsilon_1$ SFP <sub>2</sub> = Salesforce Performance $\alpha$ = constant (intercept) $\beta_1$ = regression coefficient FC= firm characteristics $\varepsilon_1$ = Error term	R <sup>2</sup> = % change in variability.  F statistic = Goodness of fit  P value= significance
To assess the influence of firm characteristics on the relationship between sales territory design and sales force performance	H <sub>03</sub> : Firm characteristics do not significantly moderate the relationship between STD and salesforce performance	Stepwise Regression Analysis $SFP_3 = \alpha + \beta_1 STD_1 + \varepsilon$ $SFP_4 = \alpha + \beta_2 STD + \beta_3 FC + \varepsilon$ $SFP_5 = \alpha + \beta_1 STD + \beta_2 FC + \beta_3 X*Z + \varepsilon$ $\alpha$ =constant (intercept), $\beta_1, \beta_2, \beta_3$ = regression coefficients SFP <sub>3</sub> , SFP <sub>4</sub> and SFP <sub>5</sub> = Salesforce Performance STD <sub>1</sub> = Sales Territory Design, FC= Firm characteristics $\varepsilon$ = Error term; X*Z= Sales Territory Design and Firm characteristics interaction term	R <sup>2</sup> = % change in variability.  F statistic = Goodness of fit  P value = significance
To establish the relationship between training and salesforce performance	H <sub>04</sub> : Training has no statistically significant influence on salesforce performance	Simple Regression Analysis $SFP_6 = \alpha + \beta_1 SFT + \varepsilon_1$ SFP <sub>6</sub> = Salesforce Performance. $\alpha$ = constant (intercept) $\beta_1$ = regression coefficient SFT= Salesforce training $\varepsilon_1$ = Error term	R <sup>2</sup> = % change in variability.  F statistic = Goodness of fit  P value = significance
To determine the effect of salesforce training on the relationship between sales territory design and sales force performance.	H <sub>05</sub> : Salesforce training does not significantly moderate the relationship between STD and salesforce performance	Stepwise Regression Analysis $SFP_7 = \alpha + \beta_1 STD_1 + \varepsilon$ $SFP_8 = \alpha + \beta_2 STD + \beta_3 SFT + \varepsilon$ $SFP_9 = \alpha + \beta_1 STD + \beta_2 SFT + \beta_3 X*Z + \varepsilon$ $\alpha$ =constant (intercept), $\beta_1, \beta_2, \beta_3$ = regression coefficients SFP <sub>7</sub> , SFP <sub>8</sub> and SFP <sub>9</sub> = Salesforce Performance ; STD <sub>1</sub> = Sales Territory Design; SFT= Salesforce training $\varepsilon$ = Error term; X*Z= Sales Territory Design and salesforce training interaction term	R <sup>2</sup> = % change in variability.  F statistic = Goodness of fit  P value = significance



<b>Objective</b>	<b>Hypothesis</b>	<b>Analytical model</b>	<b>Interpretation</b>
To establish the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance.	H <sub>06</sub> : Sales territory design, firm characteristics and salesforce training jointly do not have a significant influence on salesforce performance	Multiple Regression Analysis $SFP_{10} = \alpha + \beta_1 STD. + \beta_2 FC. + \beta_3 SFT. + \epsilon$ SFP <sub>10</sub> =Salesforce performance $\alpha$ = constant (intercept) STD = Sales Territory Design FC = firm characteristics SFT = Salesforce training $\beta_1, \beta_2, \beta_3$ are the regression coefficients $\epsilon$ = the error term	R <sup>2</sup> = % change in variability. F statistic = Goodness of fit P value = significance

**Source: Researcher (2023).**

### 3.10 Chapter Summary

The chapter has documented the research philosophy applied in the study, the research design, the population of the study, the sample design and data collection. Further, the chapter has presented how the study variables were operationalized, how the data was analyzed and concluded by providing a summary of the study objectives, the study hypotheses and analytical model.

## CHAPTER FOUR

### DESCRIPTIVE STATISTICS AND CORRELATIONAL ANALYSIS

#### 4.1 Introduction

This chapter depicts the findings of the study, data analysis, and a comprehensive discussion of the results. Both descriptive and inferential statistics are utilized to present a summary of the findings.

#### 4.2 Response Rate

The study was undertaken among sales people from detergent manufacturing companies in Kenya. The researcher distributed 313 questionnaires, out of which 267 responded positively by filling and returning the questionnaires. However, after scrutiny to eradicate poorly filled questionnaires the number of well filled questionnaires dropped to 232. Results of the response rate are given by Table 4.1.

**Table 4.1: Response Rate**

<b>Response Rate</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Questionnaires well filled after scrutiny	232	74.12
Unreturned and incomplete questionnaires	81	25.88
Questionnaires distributed	<b>313</b>	<b>100%</b>

**Source: Primary Data**

The results indicate a response rate of 74.12%. The study's response rate was considered good for a survey research as supported by Creswell and Creswell (2019) who recommend a score of 70% as good. Yin (2019) proposes a 50% response rate as satisfactory, 60% as good and above 70% as very good whereas Njeru (2020), proposes

that a response rate of 60% is a good representation of the population of the study. Therefore, the response rate of this study was good.

### **4.3 Reliability of the Instrument**

Prior to using a questionnaire to collect data it should be pretested. The aim of the pretesting is to refine the questionnaire to avoid ambiguity and any other issues in responding to the questions and recording data. The questionnaire is pretested by conducting a pilot study. A pilot study is a preliminary test carried out before the final study to ensure that research instruments are working properly, and can be used as a small-scale version of a trial run in preparation for a major study (Akhtar, 2019). A pilot study was carried out using thirty three respondents selected by convenient sampling from some of the detergent manufacturing companies in Kenya which helped to fine tune the questionnaire. The thirty three respondents were not used in the main study to avoid bias as they had already been exposed to the questionnaire.

According to Taherdoost (2018) reliability is about the repeatability, consistency and stability of a questionnaire. It is important to test for the reliability of an instrument as it indicates if there is consistency across the different items of the instrument. According to Taherdoost (2018) the most commonly used internal consistency measure is the Cronbach Alpha coefficient. For a study, it is recommended that reliability should be equal to or above 0.70. Hinton (2020) suggested four cut-off points for reliability, which includes excellent reliability (0.90 and above), high reliability (0.70-0.90), moderate reliability (0.50-0.70) and low reliability (0.50 and below). Although reliability

is important for any study, it is not sufficient unless combined with validity. According to Wilson (2020), for a test to be reliable, it also needs to be valid.

The reliability of the questionnaire was tested using Cronbach's Alpha. Cronbach's alpha provides a unique quantitative estimate of the internal consistency of a scale (Cooper & Schinder, 2020) and has the highest utility for questions on an interval scale like the ones used in the study. The Cronbach's alpha determines the internal consistency of the Likert - type scale questions. The results are shown in Table 4.2.

**Table 4.2: Summary of Reliability Statistics**

<b>Variable</b>	<b>Number of Items</b>	<b>Cronbach's Alpha</b>	<b>Decision</b>
Sales Territory Design	41	0.946	Accepted
Firm Characteristics	13	0.946	Accepted
Salesforce Training	32	0.843	Accepted
Salesforce Performance	20	0.951	Accepted
<b>Overall Reliability Coefficient</b>		<b>0.922</b>	<b>Accepted</b>

**Source: Primary Data**

From the summarized results of the variables in Tables 4.2, sales territory design had a Cronbach's Alpha coefficient of 0.946, firm characteristics had a Cronbach's Alpha coefficient of 0.946, salesforce training had a Cronbach's Alpha coefficient of 0.843 and salesforce performance had a Cronbach's Alpha coefficient of 0.951. The overall reliability coefficient was 0.922, which is greater than the recommended cut-off point of Cronbach's Alpha coefficient of reliability of  $\geq 0.7$  as recommended in this study. The measuring instrument was therefore considered to be suitable to proceed for main data analysis.

#### **4.4 Validity Test**

Validity refers to the extent to which an instrument measures what it is supposed to measure; data need not only to be reliable but also true and accurate. The validity of an instrument is the degree to which the instrument depicts the abstract construct being studied. There are several types of validity and they contribute to the overall validity of a test. The three main types of validity are content, face and construct validity.

Content validity examines whether a test represents all aspects of the construct. In content validity, professional subjective opinion is used to ascertain the degree to which the scale was designed to measure an attribute of interest. The researcher used feedback received from his supervisors and faculty team during the presentations to improve the content validity of the questionnaire. Face validity is a measure on the suitability of a test on the surface. Face validity was enhanced through pretesting of the questionnaire using thirty three respondents chosen through convenient sampling. Other types of validity tests specifically convergent validity, discriminate validity and construct validity were measured by applying Bartlett's test of sphericity and Kaiser Meyer-Olin (KMO) measure of sampling adequacy in order to assess factorability of items where Bartlett's test was used to determine the overall significance of the correlations among the study variables in the statistical model. The chosen technique sufficed if Bartlett test of sphericity's p-value is lower than the significance level (Hair et al., 2020). Further KMO was utilized in determining the sampling adequacy of the data that was used for factor analysis. Its value ranges between 1 and 0, and generally the factor analysis is considered useful with the data if the value is at least 0.6 (Hair et al., 2020). The study results are presented in Table 4.3.

**Table 4.3: KMO and Bartlett's Test for Sales Territory Design**

<b>KMO and Bartlett's Test</b>		
Kaiser Meyer-Olin Measure of Sampling Adequacy.		.904
Bartlett's Test of Sphericity	Approx. Chi-Square	7720.860
	df	820
	Sig.	.000

The results indicate that the sampling adequacy for sales territory design constructs showed adequacy in the respective samples with all values showing at least 0.6 (KMO=.904, Chi-square ( $\chi$ )= 7720.860, df=820 and sig. level=0.000) implying that the constructs under sales territory design were adequate to measure the objectives in a true and accurate perspective.

**Table 4.4: KMO and Bartlett's Test for Firm Characteristics**

<b>KMO and Bartlett's Test</b>		
Kaiser Meyer-Olin Measure of Sampling Adequacy.		.878
Bartlett's Test of Sphericity	Approx. Chi-Square	1837.618
	df	78
	Sig.	.000

The KMO and Bartlett's Test results for firm characteristics indicate that the sampling adequacy value is .878 which is greater than 0.6 at sig. level=0.000 which shows that the statements measuring the constructs under firm characteristics are adequate, accurate and true representation of the objective to be measured by the study.

**Table 4.5: KMO and Bartlett's Test for Salesforce Training**

<b>KMO and Bartlett's Test</b>		
Kaiser Meyer-Olin Measure of Sampling Adequacy.		.884
Bartlett's Test of Sphericity	Approx. Chi-Square	4978.927
	df	351
	Sig.	.000

The results of KMO and Bartlett's Test for salesforce training indicates that the constructs are adequate to measure the manifestation of salesforce training (KMO=.884, Chi-square ( $\chi$ ) = 4978.927, df=351 and sig. level=0.000). This depicts that accurate and true results was obtained from the instrument during the main survey.

**Table 4.6: KMO and Bartlett's Test for Salesforce Performance**

<b>KMO and Bartlett's Test</b>		
Kaiser Meyer-Olin Measure of Sampling Adequacy.		.771
Bartlett's Test of Sphericity	Approx. Chi-Square	2269.748
	df	190
	Sig.	.000

The KMO and Bartlett's Test results shows salesforce performance constructs are adequate to measure the manifestation of salesforce performance (KMO=.771, Chi-square ( $\chi$ )= 2269.748, df=190 and sig. level=0.000). This depicts that accurate and true results was obtained from the instrument during the actual data collection.

#### **4.4.1 Factor Analysis**

Factor analysis is an approach that involves condensing information contained in a number of variables into a smaller set of dimensions (factors) with a minimum loss of information (Baets, 2002). Mabert et al. (2018) stated that factor loading with Eigen values (total variance) greater than 0.5 should be extracted and coefficients below 0.49 deleted from matrix since they are not important. Factor analysis was carried out using principal component analysis method and a summary of factors obtained are presented in table 4,7.

**Table 4.7: Summary of Principal Components Analysis Results**

<b>Construct</b>	<b>Components</b>	<b>Number of measuring items</b>	<b>Critical factors</b>	<b>Variance Explained (%)</b>
Sales Territory Design	Market potential manifestations	7	3	70.66%
	Geographical size of the sales territory	9	3	74.49%
	Number of accounts in the sales territories	11	1	63.72%
	Travel time	7	2	64.90%
	Competition intensity	7	3	62.13%
Firm Characteristics	Location	7	1	72.40%
	Manufacturing facilities	6	1	66.97%
Salesforce Training	Training Methods	5	3	74.51%
	Salesforce training content	12	3	60.89%
	Salesforce trainers	8	1	70.15%
	Salesforce training venues	7	2	67.24%
	Salesforce training Frequency	4	2	64.93%
Salesforce Performance	Salesforce behavior based performance	11	2	68.07%
	Salesforce outcome based performance	9	2	68.40%

The results from table 4.7 show that the amount of variance explained ranged from 60% - 74%. This indicates that items used to Operationalize the variables were able to measure what they were intended to measure. These results confirmed the theorized dimensions of the study constructs.

Test of communalities was done using principle component analysis method to extract statements that were of high value in the questionnaire. This was important to enhance the quality as well as the reliability and validity of the study. The rule was that any statement that had an extraction score of less than 0.5 was considered low and removed from the study. However, statements that had scores of 0.5 and above were considered



relevant and retained in the study. The eigenvalue scores and scree plot output based on principle component extraction are shown in appendix III and IV. The results of the communalities are shown in table 4.8.

**Table 4.8: Communalities**

Statements	Initial	Extraction
The customers have high regard of the quality of the firm's products delivered within each market segment	1.0	.773
The firm dominates the potential markets with large volumes of its products compared to the competitors	1.0	.828
The firm's product portfolio commands the highest market share in all the potential markets	1.0	.703
The firm's products have a strong brand image than products from the competitors	1.0	.703
The firm's products are regarded as affordable by the customers compared to products from competing firms	1.0	.723
The firm's products are preferred by customers more than products from competitors	1.0	.739
The firm's products are available in all large distribution channels more than products from the competitors	1.0	.783
The firm's sales territories are too large compared to territories of competing firms	1.0	.787
The location of the customers in the sales territories is too dispersed making it difficult to visit all the accounts	1.0	.747
Customers at the extreme opposite sides of the sales territory are not reachable within one day	1.0	.701
The size of the firm's sales territories should be reduced in size to guarantee better customer coverage	1.0	.698
The size of the firm's sales territories is reasonable and ensures that all customers are serviced effectively	1.0	.739
The size of the firm's sales territories is too small compared to competing firms leading to over servicing of the customers	1.0	.800
The size of the firm's sales territories should be increased to increase on resources utilization	1.0	.752
The firm designs the size of its territories based on numbers of potential clients in the target territory	1.0	.804
The firm's sales territories are geographically based to ease access to customers	1.0	.738

**Table 4.8: Communalities Contd'...**

The firm designs optimum number of accounts in a sales territory so as to optimize coverage by the salesforce	1.0	.782
The number of accounts in the sales territory are based on the sales potential of the clients	1.0	.723
The number of accounts in the sales territory are designed based on the geographical terrain of the territory	1.0	.798
The number of accounts in the sales territory are based on sales of the current customers	1.0	.734
The number of accounts in the sales territory is based on how customers are accessible by road	1.0	.765
There are too many accounts in the firm's sales territories making it difficult to reach all customers	1.0	.727
There are adequate number of big accounts in the firm's sales territories to generate good sales	1.0	.676
There is too much work load in the firm's sales territories making it difficult to adequately serve all customers	1.0	.662
The accounts in the firm's sales territories are evenly distributed to balance the salesforce work load	1.0	.788
Most of the accounts in the firm's sales territories require frequent visits to maximize on sales	1.0	.811
There are accounts in the firm's sales territories that have not been visited due to too many accounts in the sales territories	1.0	.784
The travel time from one customer to another in the firm's sales territories is reasonable to enable servicing of all the customers	1.0	.796
It is possible to reach all the customers in the firm's sales territories within the stipulated time	1.0	.752
The firm encourages booking of appointments with customers to reduce travel time inconveniences	1.0	.745
The firm's sales territories are designed based on geographical distances to manage travel times	1.0	.745
There is adequate time to meet all the customers in the firm's sale's territories so as to maximize on the sales	1.0	.827
The layout of the firm's sales territories ensure sales people spend more time meeting customers than on travelling	1.0	.770
There is not enough time to meet all the customers within the firm's sales territories and this leads to low sales	1.0	.816
There is too much competition in the firm's sales territories making it difficult to generate adequate sales	1.0	.761
The firm has gained some customers from competition this year	1.0	.721

**Table 4.8: Communalities Contd'...**

The firm has lost some customers to competition this year due to too much competition	1.0	.699
The firm's sales have been on a decline over the last five years due to too much competition	1.0	.641
New competitors come to the firm's sales territories every year making it difficult to meet our sales targets	1.0	.818
Some competitors exit from the firm's sales territories every year due to too much competition.	1.0	.772
The firm's sales have be on an increase over the last 5 years year	1.0	.847
My firm is situated in a strategic location for ease of accessibility	1.0	0.670
My firm's location makes it easy to be accessed by customers by road	1.0	0.726
My firm is served by roads that are in good condition making it easy for transport of raw materials and finished products	1.0	0.705
My firm is easily accessible by road for the ease of suppliers and customers	1.0	0.688
My firm is located near its key customers to cut down on the time for transporting finished goods	1.0	0.750
My firm is serviced by roads in good condition cutting down on transport costs when receiving raw materials from suppliers	1.0	0.705
My firm is situated in a safe neighborhood cutting down on safety and security expenses	1.0	0.722
My firm has state of the art manufacturing facilities to support its operations.	1.0	0.592
My firm has adequate facilities to support its production needs	1.0	0.704
My firm has adequate storage facilities to avoid product stock outs	1.0	0.674
My firm outsources production of some of its products due to inadequate production capacity	1.0	0.724
My firm has adequate physical resources to support its operations.	1.0	0.620
My firm possess adequate financial resources to support its manufacturing operations	1.0	0.826
On the job training	1.0	0.683
Classroom lectures	1.0	0.743
Online training	1.0	0.853
Role playing	1.0	0.785
Job rotation	1.0	0.732

**Table 4.8: Communalities Contd'...**

My firm organizes training about the company so that the salesforce understands about the company history	1.0	0.652
My firm offers training on company products to improve on salesforce knowledge	1.0	0.737
My firm organizes training on selling skills to improve the competitiveness of the salesforce	1.0	0.810
My firm offers training about competition to improve on its competitive position	1.0	0.747
My firm offers training on time management to improve efficiency	1.0	0.744
My firm offers training on cost management so as to improve company profitability	1.0	0.736
My firm organizes training on customer relationship management so as to improve on customer retention	1.0	0.756
My firm offers training on report writing so as to improve communication skills	1.0	0.767
My firm organizes training on finance management to improve on profitability	1.0	0.763
My firm organizes training on safety and security to avoid accidents and incidents	1.0	0.685
My firm offers team building training to improve on teamwork	1.-	0.668
My firm organizes training on crisis management to minimize disruption on its operations	1.0	0.580
My firm uses company trainers from within the company to cut down on costs	1.0	0.766
My firm uses hired trainers from within the country to tap in on different expertise	1.0	0.853
My firm uses trainers from sister companies in other countries for training to share knowledge from different countries	1.0	0.670
My firm uses hired specialists for the different training it offers	1.0	0.666
My firm hires trainers from institutions of higher learning from within the country for specialized training	1.0	0.700
My firm hires trainers from institutions of higher learning from outside the country for specialized training	1.0	0.620
My firm uses more experienced salespeople to train other salespeople	1.0	0.732
My firm uses managers to train the salesforce	1,0	0.780

**Table 4.8: Communalities Contd'...**

My firm organizes for training within the company premises to save on costs	1.0	0.744
My firm organizes for training outside the company premises but within the country to avoid training disruptions	1.0	0.652
My firm organizes for training in other sister companies premises in other countries to encourage sharing of different experiences	1.0	0.608
My firm organizes for training in other countries away from company premises to avoid training disruptions	1.0	0.667
My firm organizes for training in institutions of higher learning within the country to tap on experiences of local experts	1.0	0.810
My firm organizes for training in institutions of higher learning outside the country for specialized training	1.0	0.901
My firm organizes for training at the individual's work station to cut down on costs	1.0	0.871
My firm conducts training on a weekly basis	1.0	0.846
My firm conducts training on a monthly basis	1.0	0.828
My firm conducts training on a quarterly basis	1.0	0.794
My firm conducts training on an annual basis	1.0	0.817
I prepare adequately for sales presentations for the customers in advance to improve my presentation	1.0	0.711
I always book for appointments with customers before going out for the meetings to save on time	1.0	0.635
I prepare and submit monthly reports on time	1.0	0.762
I always operate within set company budgets	1.0	0.809
I offer after sales service to the customers to make sure that the customers are satisfied	1.0	0.740
I supply the customers with brochures and other supporting materials for the company products to ensure customers understand the products well	1.0	0.753
I have good presentation skills to help me gain customer confidence	1.0	0.661
I carry out product demonstrations to enable me gain new business	1.0	0.701
I seek for feedback from my managers on my performance for continuous improvement	1.0	0.807
I have good knowledge of the company's products to enable me offer best solutions to the customers	1.0	0.808
I gain new accounts every year	1.0	0.617

**Table 4.8: Communalities Contd'...**

I sell products with high profit margins every year	1.0	0.721
I sell new products to the customers every year	1.0	0.625
I identify and sell to new accounts every year	1.0	0.597
I achieve the set targets for product demo every year	1.0	0.614
I achieve set target for profits every year	1.0	0.661
I achieve the set target for new product sales every year	1.0	0.653
I achieve the set targets for customer visits every year	1.0	0.619

**Extraction Method: Principal Component Analysis.**

**Source: Primary Data (2023).**

#### **4.5 Respondents' Demographic Profiles**

The study sought to establish the demographic profile of respondents and hence respondents were requested to indicate their gender, age distribution, and marital status, highest level of education and years of service as a sales person for the current firm. These salesperson's attributes considered by this study were important as they indicated the extent to which the respondents would be in a position to give accurate feedback arising from institutional memory on the firm's activities and hence the responses would be credible.

##### **4.5.1 Respondents' Distribution by Gender**

Gender diversity in an organization can influence decision making and organizational overall performance. Gender diversity could bring in heterogeneity in values, beliefs, and attitudes, which would broaden the range of perspectives in the decision making process and stimulate critical thinking and creativity leading to better decision making and improved performance (Ali, Kulik & Metz, 2019). The results from the study are displayed in Table 4.9.

**Table 4.9: Respondents' Distribution by Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percent (%)</b>
Female	57	24.57
Male	175	75.43
<b>Total</b>	<b>232</b>	<b>100</b>

**Source: Primary Data**

The results in Table 4.9 show that majority of the respondents were male 75.43% with female being 24.57%. This shows that there are more males than females in this industry indicating that there is male domination in the industry. The gender distribution is in line with previous studies, Zoltners et.al (2020) which showed that women make up 30% of salespeople in manufacturing industries and 27% in the wholesale business. The results also concur with a study by Pinar et.al (2020) who observed that in the Turkish hospitality industry, males make up 65% of the sales people while females were only 35%.

The majority males in the industry may be due to the nature of the sales job which involves frequent travels often away from home and long working hours which might not be attractive to women especially the ones with families. Inclusive work forces generate higher satisfaction levels, which in turn increases salesforce engagement thus resulting in increased performance (Navon, 2019). A study by McKinsey Global Institute (2019) found that lack of gender diversity is associated with a greater likelihood of below par performance and when companies commit themselves to diverse leadership, they are more successful.

#### **4.5.2 Respondents' Distribution by Age**

The age of the employees in organizations is an important factor because it determines how well they can interpret the environment and therefore adapt to changes from the

environment and consequently make decisions for their organizations that will eventually influence their performance (Glaser & Strauss, 2019). Age distribution is also important in organizations due to succession planning to ensure continuity of the business and competitiveness of the organization. A summary of the respondents' distribution by age is presented in table 4.10.

**Table 4.10: Respondents' Distribution by Age**

<b>Age of respondent</b>	<b>Frequency</b>	<b>Percent (%)</b>
25-29 years	58	25.0
30-34 years	91	39.2
35-39 years	51	21.9
40-44 years	17	7.4
45 and above years	15	6.5
<b>Total</b>	<b>232</b>	<b>100.0</b>

**Source: Primary Data**

The results in Table 4.10 showed that majority of the sales people (39.2%) were within the age bracket 30-34 years followed by (25.0%) who are in age up to 25-29 years and respondents in the age group of 35-39 who constituted 21.9%. The Respondents who were 45 and above in age were the least at 6.5% only. The results showed that majority of the respondents (86.15%) were within the age of between 25-39 years. Only 13.9% of the salespeople were aged 40 years and above. This is an indication that most of the sales people in this industry are within the active age and are likely to be energetic, competitive in nature, open to new innovative ideas, willing to learn new ways and combination of all this is likely to boost salesforce performance.

The age distribution in the current study compares well with previous studies though there are differences in some of the age brackets. Fu (2019) found out that 5.1% of the



sales people were in the age bracket 18-25 years, 10.8% in the age bracket 26-30, 15.6% in the age bracket 31-35, 13.1% in the age bracket 36-40, 18.5% in the age bracket 41-45 and 37% were in the age bracket of 46 years and above. Day (2013), established that 18% of the salespeople were in age bracket of 25-30 years, 19% in the age bracket 31-35, 17% in the age bracket 36-40, 15% in the age bracket 41-46 and 20% were in the age bracket 47 and above years.

#### **4.5.3. Respondents’ Distribution by Level of Education**

Education is the level of academic and professional qualifications that is possessed by an individual. Education can influence decisions made while recruiting employees and which thereafter can affect overall employee performance. The relevant results are presented in Table 4.11.

**Table 4.11: Respondents’ Distribution by Level of Education**

<b>Respondent’s level of education</b>	<b>Frequency</b>	<b>Percent (%)</b>
Certificate	7	3.0
Diploma	63	27.2
Undergraduate degree	128	55.2
Master’ s degree and above	34	14.7
<b>Total</b>	<b>232</b>	<b>100.0 %</b>

**Source: Primary Data**

The results in Table 4.11 show that majority of the respondents 55.2% had an undergraduate degree, followed by respondents with a diploma level of education at 27.2% and then respondents who had master’s degree at 14.7%. Respondents who had a certificate level of education were the least at 3.0%. The results of the study are in line with previous findings. Yu and Tseng (2019) established that salespeople with non-university education made up 16.8%, those with university degree were 77.8% and those

with master's degree and above made up 5.4% of the total salespeople while Pettijohn et al. (2019) found that 17% of the salespeople had high school level of education, 17.4% had diploma education, 55.5% had university degree and 7.8% had advanced university degree.

The outcome of the current study indicate that education levels of sales people were considered as important by the detergent manufacturing companies and most of them were well educated. Employees with higher levels of education performs their duties better because higher education provides them knowledge and skills as well as have the capacity and expertise to steer organization's success. Gillies (2019) posits that an individual's level of formal training depicts intellectual skills and qualities. Training is linked to improved ability to process information and to make choices on varieties of alternatives. The results thus indicate that the respondents had the ability to make informed decisions that could influence salesforce performance.

#### **4.5.4. Respondent Distribution by Length of Service as a Sales Person for the Current Employer**

A summary of the length of service as a salesperson for the current employer for the respondents is presented in Table 4.12.

**Table 4.12: Length of Service as Sales Person for the Current Employer**

<b>Length of service</b>	<b>Frequency</b>	<b>Percent (%)</b>
1-5 years	141	60.77
6-10 years	65	28.02
11-15 years	15	6.47
16-20 years	11	4.74
<b>Total</b>	<b>232</b>	<b>100.00</b>

**Source: Primary Data**

The results show that majority of the respondents 60.77 had worked for the current employer for between 1 and 5 years followed by those who had been with their current employer for 6-10 years at 28.02%. Respondents who had worked for 11-15 years made up 6.47% while those who had worked for 16-20 years were the least at 4.74%. The outcome of the current study in terms of length of service for the current employer compare well with previous studies. Yu and Tseng (2019) found out that 32% sales people had worked for their current employer for a period of between 1 and 5 years and those who hand worked for a period 5-9 years were 51.8%. In total, salespeople who had worked for their current employer for a period of between 1 and 9 years were 83.8% and only 15.2% had worked for a period of more than 9 years.

For the current study, salespeople who had worked for their current employer for a period of between 1 and 10 years were 88.79% while those who had worked for 11 years and above were 11.21%. The results of the current study are however different from the findings by Fu (2019) who established that salespeople who had worked for their current employer for a period of 1 to 10 years were 35.3%, 9.9% had worked for a period of between 11-14 years, 25% had worked for a period of 15-21 years and 28% had worked for a period of 22year and above.

An experienced salesforce gives a firm a competitive advantage over its competitors. At the same time new firms, entering into the market will try to recruit experienced and well versed sales people from the rival firms so as to gain the experience of the salespeople and the customer relationships they have. The short length of service in the detergent manufacturing companies could be an indicator that there is high turnover of salesforce

maybe due to pressure from management to meet set performance targets. It could also be as a result of the salesforce switching jobs by being attracted by new firms entering the industry. The experience gained over time can be used to perform tasks in a more timely and cost efficient way (Plaskoff, 2019).

#### 4.5.5. Respondents' Distribution by Marital Status

A summary of the respondents' distribution by marital status is presented in Table 4.13.

**Table 4.13: Respondents' Distribution by Marital Status**

<b>Respondent' s Marital Status</b>	<b>Frequency</b>	<b>Percent (%)</b>
Married	172	74.13
Single	32	13.70
Divorced	21	9.17
Widowed	7	3.00
<b>Total</b>	<b>232</b>	<b>100.0 %</b>

**Source: Primary Data**

The results in Table 4.13 show that majority of the respondents 74.13% were married, followed by single at 13.7% and then those divorced at 9.17%. Respondents who were widowed were the least at 3.0%. Marital status of employees can have an effect on performance. Studies have shown different findings on the relationship between marital status and performance. Çemberci et al. (2022) and Iwuagwu, Okogbo and Okonta (2016) found a positive relationship between married employees and performance. In contrast Padmanabhan and Magesh (2016) and Falola et al. (2016) established a negative relationship between married employees and performance.

## **4.6 Descriptive Statistics**

The average of all scores of a particular variable is regarded as a mean score of that variable. In contrast, standard deviation is a measure of the dispersion of values from a central point (Gupta, 1952). Bedeian and Mossholder (2019) argue that it is not possible to compare the mean and standard deviations in a useful way as they greatly differ in their occurrence in the various variables. Bedeian and Mossholder (2019) instead propose for the use of the coefficient of variation (CV) as a measure of relative variability.

Coefficient of variation is a standardized measure of dispersion of a frequency distribution or probability distribution. It is calculated as a fraction of standard deviation to the mean. Due to the highlighted limitation of the mean and standard deviation for items comparison in the variables of this study, the researcher instead calculated the coefficient of variations to obtain values that were approximate to the actual values. This gave a correct outlook of the extent of dispersion of the items in different variables and their influence on performance. In line with Bedeian and Mossholder's (2019) proposal, the coefficient of variation ratings in this study were categorized as 0 to 25% as very good, 26% to 50% as good, 51% to 75% as fair and 76% to 100% as poor. Moreover, the variables were measured after the reduction of the results into composite scores.

### **4.6.1 Descriptive Statistics for Sales Territory Design**

The study implored the respondents to indicate the extent to which they perceived the contribution of the sales territory design that is; market potential, geographical size of the territory, number of accounts in the territories, travel time and competition

intensity had an effect on salesforce performance. The measurements were done using mean scores and coefficient of variation on a 5 point Likert scale where: 1 denoted – Very small extent; 2 denoted –Small extent; 3 denoted -moderate extent; 4 denoted – large extent and 5 denoted –very large extent. In line with recommendations by Bedeian and Mossholder (2019), the researcher categorized the coefficient of variation using the following ratings; 0 to 25% very good; 26% to 50% good; 51% to 75% fair; and 76% to 100% poor. For every component of sales territory design, the researcher provided a summary of descriptive statistics calculated from the respondents’ opinions about the different statements in regard to each component. These inferences are discussed in the subsequent sections.

#### **4.6.1.1 Descriptive Statistics for Market Potential Manifestations**

The respondents were asked to indicate the extent to which they thought market potential component of sales territory design influenced salesforce performance in the detergent manufacturing companies in Kenya. To measure market potential manifestations, a set of seven items was used. The variables were measured using a Likert scale. The generated results are presented in Table 4.14.

**Table 4.14: Descriptive Statistics for Market Potential**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>Std. Deviation</b>	<b>C.V (%)</b>
My customers have high regard of the quality of the firm's products delivered within each market segment	232	2.6078	.94733	36.3
My firm dominates the potential markets with large volumes of its products compared to the competitors	232	2.8707	.80615	28.1
My firm's product portfolio commands the highest market share in all the potential markets	232	3.0259	.94398	31.2
My firm's products have a strong brand image than products from the competitors	232	2.8319	.87891	31.0
My firm's products are regarded as affordable by the customers compared to products from competing firms	232	2.8017	.96895	34.6
My firm's products are preferred by customers more than products from competitors	232	3.0346	.97294	32.1
My firm's products are available in all large distribution channels more than products from the competitors	232	2.8103	.92968	33.1
<b>Overall</b>		2.8547	0.9211	32.3

**Source: Primary Data.**

The results show an overall mean score of 2.85, standard deviation of 0.9211 and coefficient of variation of 32.3%. The statement with the highest mean was that the firm's products are preferred by customers more than products from competitors with a mean of 3.0346. The statement with the lowest mean was that customers have high regard of the quality of the firm's products delivered within each market segment with a mean of 2.6078. The coefficient of variation of 32.3% implies that sales people among detergent manufacturing companies consider market potential as a measure of sales territory design as a good contributing factor towards their performance. The overall mean score of 2.85 depicted an average market potential.

#### 4.6.1.2 Descriptive Statistics for Geographical Size of the Territory

The respondents were asked to indicate their agreement on a number of statements regarding the geographical size of a territory in their firms. To measure the manifestations of the geographical size of the territories in the firms, a set of nine items was used. The variables were measured using a Likert scale ranging from 1(very little extent) to 5 (very large extent). The generated results are presented in Table 4.17.

**Table 4.15: Descriptive Statistics for Geographical Size of the Territory**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>Std Deviation</b>	<b>C.V (%)</b>
My sales territory is too large compared to the territories of other sales people	232	3.3448	.90313	27.0
I am not able to visit all the accounts in my territory as they are too dispersed.	232	3.3664	1.00185	29.8
I am not able to visit customers at the extreme opposite sides of my territory due to the size of the territory	232	2.8398	.87743	30.9
My sales territory should be reduced in size to guarantee better customer coverage	232	3.3203	.77542	23.4
My sales territory is reasonable and ensures that all customers are serviced effectively	232	3.4236	.89813	26.2
My sales territory is too small compared to the territories of other sales people leading to over servicing of the customers	232	2.6379	.93417	35.4
My sales territory should be increased to increase on resources utilization	232	2.6595	1.00669	37.9
My firm designs the size of its territories based on numbers of potential clients in the target territory	232	2.8304	1.05397	37.2
My firm's sales territories are geographically based to ease access to customers	232	2.5065	.99070	39.5
<b>Overall</b>		<b>2.992</b>	<b>0.937</b>	<b>31.9</b>

**Source: Primary Data.**



The results shows that geographical size of the territory on average manifests among the detergent manufacturing companies in Kenya at 2.99, standard deviation of 0.937 and coefficient of variation of 31.9%. The highest mean was 3.4236 for the statement that the size of my sales territory is reasonable and ensures that all customers are serviced effectively. The lowest mean was 2.5065 with the statement that my firm's sales territories are geographically based to ease access to customers. The overall mean of 2.99 depicted that geographical size of the territory had a moderate influence on salesforce performance.

#### **4.6.1.3 Descriptive Statistics for Number of Accounts in the Territory**

The descriptive analysis of the number of accounts in the territory was analyzed; respondents were required to indicate their degree of agreement to number of statements on the number of accounts in their sales territories. To measure the manifestations of the number of accounts in the territory a set of eleven items was used. The variables were measured using a Likert scale ranging from 1 (very small extent) to 5 (very large extent). The generated results are presented in Table 4.16.

**Table 4.16: Descriptive Statistics for Number of Accounts in the Territory**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>C.V (%)</b>
My firm designs optimum number of accounts in a sales territory so as to optimize coverage by the salesforce	232	2.5517	1.02645	40.2
My firm bases the number of accounts in the sales territory on the sales potential of the clients	232	2.6061	1.01114	38.8
My firm determines the number of accounts in the sales territory based on the geographical terrain of the territory	232	2.6207	.99918	38.1
My firm uses the sales of the current customers in the territory to work out the number of accounts in the territory	232	2.5905	.93071	35.9
My firm determines the number of accounts in the sales territory based on how customers are accessible by road	232	2.6293	1.09331	41.6
My sales territory has too many accounts making it difficult to reach all customers	232	3.1293	.90721	29.0
My sales territory has adequate number of big accounts to generate good sales	232	2.9310	.80285	27.4
My sales territory has too much work load making it difficult to adequately serve all the customers	232	3.4286	.93848	27.4
My sales territory has accounts which are evenly distributed to balance the work load	232	3.5948	.92562	25.7
I make frequent visits to all the accounts in my sales territory to maximize on sales	232	3.6853	.83233	22.6
I have too many accounts in my sales territory making difficult to visits all the accounts	232	3.6681	.91036	24.8
<b>Overall</b>		<b>3.0395</b>	<b>0.9434</b>	<b>32.0</b>

**Source: Primary Data.**

The overall mean score of the analysis of the number of accounts in the territory is 3.04, standard deviation of 0.9434 and coefficient of variation of 32%. The highest score with 3.6853 was the statement “I make frequent visits to all the accounts in my sales territory to maximize on sales”. The lowest score with 2.5517 was the statement “My firm designs optimum number of accounts in a sales territory so as to optimize coverage by the salesforce”. The value of CV (32%) is good depicting uniform variation on the manifestation of number of accounts in the territory among the detergent manufacturing companies in Kenya. The average mean score of 3.039 implied that number of accounts in the territory has a big influence on the performance of sales people.

#### **4.6.1.4 Descriptive Statistics for Travel Time**

Travel time was analyzed as one of the items making up sales territory design. Seven questions were used to find out how it manifests in the detergent manufacturing companies in Kenya. The respondents were required to indicate their agreement to the seven questions on travel time using a Likert scale of ranging from 1 (very little extent) to 5 (very large extent). The generated results are presented in Table 4.17.

**Table 4.17: Descriptive Statistics for Travel Time**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>C.V (%)</b>
I have adequate travel time from one customer to another which enables servicing of all the customers in sales territory	232	3.1983	.85503	26.7
I am able to visit all the customers in my sales territory within the stipulated time	232	3.2026	.78260	24.4
I book appointments with my customers to avoid time wastage on unnecessary travel	232	3.1861	.91603	28.8
My sales territory is designed based on geographical distribution of the customers to manage travel times	232	3.9612	.84937	21.4
I have adequate time to meet all the customers in my sale's territory so as to maximize on the sales	232	3.7759	.94054	24.9
My sales territory is designed in a way that ensures I spend more time meeting customers than on travelling	232	3.9134	.86041	22.0
I do not have enough time to meet all the customers within my sales territory and this leads to low sales	232	3.2328	.79346	24.5
<b>Overall</b>		<b>3.495</b>	<b>0.856</b>	<b>24.7</b>

**Source: Primary Data.**

The overall mean score of travel time as shown in Table 4.17 is 3.495, standard deviation of 0.856 and coefficient of variation vof 24.7%. The highest mean of 3.9612 was the statement “my sales territory is designed based on geographical distribution of the customers to manage travel times”.

The lowest mean was 3.1861 for the statement “I book appointments with my customers to avoid time wastage on unnecessary travel”. This implies that respondents agreed that

travel time is very critical in influencing salesforce performance in the detergent manufacturing companies in Kenya.

#### 4.6.1.5 Descriptive Statistics for Competition Intensity

The respondents were asked to indicate their agreement to a set of seven questions on the level of competition intensity in their sales territories using a Likert scale ranging from 1 (very small) to 5 (very large extent). The generated results are presented in Table 4.18.

**Table 4.18: Descriptive Statistics for Competition Intensity**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>C.V (%)</b>
My sales territory has too much competition making it difficult to generate adequate sales	232	3.3578	.72466	21.6
I have gained some customers from competition this year	232	3.3319	.70078	21.0
I have lost some business to competition this year due to too much competition	232	3.2716	.82675	25.3
My sales have been on a decline over the last five years due to too much competition	232	2.9957	.78678	26.3
I face new competitors in my sales territory every year making it difficult to meet my sales targets	232	3.3491	1.01230	30.2
I experience an exit of some competitors from my sales territory every year due to too much competition.	232	3.0431	1.05594	34.7
My sales have be on an increase over the last 5 years	232	3.2284	1.26370	39.1
<b>Overall</b>		<b>3.225</b>	<b>0.910</b>	<b>28.3</b>

**Source: Primary Data.**

The results of the descriptive statistics of the competition intensity showed that it manifested strongly at a mean score of 3.225, standard deviation of 0.910 and

coefficient of variation of 28.3%. The highest mean was 3.3587 with the statement that “My sales territory has too much competition making it difficult to generate adequate sales”. The lowest mean was 2.9957 with the statement that “My sales have been on a decline over the last five years due to too much competition”. It is further depicted that a CV of 28.3% is good implying that competition intensity is key in determining salesforce performance among the detergent manufacturing companies in Kenya.

#### 4.6.1.6 Summary of Descriptive Statistics for Sales Territory Design

The sales territory design variables were measured after the collapsing of the individual results into composite scores. Table 4.19 displays a summary of descriptive statistics results for sales territory design sub-components.

**Table 4.19: Summary of Descriptive Statistics for Sales Territory Design**

<b>Sales Territory Design</b>	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>Cv (%)</b>
Market Potential	232	2.85	0.92	32
Geographical size of the territory	232	2.99	0.94	32
Number of accounts in the territory	232	3.04	0.94	32
Travel Time	232	3.49	0.86	25
Competition Intensity	232	3.22	0.91	28
<b>Overall</b>	<b>232</b>	<b>3.118</b>	<b>0.914</b>	<b>29.3</b>

**Source: Primary Data.**

The results in Table 4.19 indicate that the mean score of the sub-variables of the sales territory design was 3.12 with a standard deviation of 0.914 and a coefficient of variation (CV) of 29.3%. The CV of 29.3% implies that sales territory design is a strong contributor to salesforce performance. The sub-variable with highest manifestation is travel time with mean score of 3.49, followed by competition intensity with a mean of 3.22, number of accounts in the territory with a mean score

of 3.04, geographical size of the territory with a mean score of 2.99 and finally market potential with a mean score of 2.85. The market Potential, geographical size of the territory and number of accounts in the territory had the highest coefficient of variation (32%) respectively, slightly higher than the other sub-variables, but it is still a good contributor to salesforce performance. The travel time had the lowest coefficient of variation (25%) compared to other variables, meaning that it was viewed as having a bigger influence on salesforce performance in the detergent manufacturing companies in Kenya and thus contributing highly to salesforce performance.

#### 4.6.2 Descriptive Statistics for Firm Characteristics

Firm characteristics was a moderating variable and had five measurement items that is, age of the firm (measured by the number of years the firm has been in existence), size of the firm (measured by the number of permanent employees), ownership structure, location and manufacturing facilities. The results are summarized in the section below:

**Table 4.20: Number of Years the Firm has been in Existence**

<b>Number of years firm has been in existence</b>	<b>Frequency</b>	<b>Percent (%)</b>
Up to 10 years	16	6.9
11 to 20 year	14	6.0
21 to 30 years	28	12.1
31 to 40 years	48	20.7
41 to 50 years	9	3.9
Over 50 years	117	50.4
<b>Total</b>	<b>232</b>	<b>100.0 %</b>

**Source: Primary Data**

The results in table 4.20 show that majority of the firms (50.4%) have been in existence for over 50 years, followed by 20.7% who indicated having been in existence for between 31-40 years, 12.1% indicated having been in existence between 21 to 30 years

with few indicating having been in existence for up to 10 years (6.9%), 11 to 20 years (6.0%) and 41 to 50 years (3.9%). The result indicates that majority of the firms (50.4%) were established soon after the country attained its independence and are mature firms. Very few firms (6.9%) have been established in the last ten years. This could be due the high capital required to start a manufacturing company in this industry as the manufacturing equipment are expensive and also the need for expansive space for the warehouses for the raw and finished goods and offices.

#### 4.6.2.1 Number of Permanent Employees

The size of the firm based on the number of permanent staff was considered key to the study and the information was gathered from the respondents in the study. The results generated from the study are presented in Table 4.21.

**Table 4.21: Classification of Firm Characteristics by Number of Employees in a Firm**

<b>Number of employees in the firm</b>	<b>Frequency</b>	<b>Percent (%)</b>
Up to 10	4	1.72
11 to 50	27	11.64
51 to 250	80	34.48
Over 250	121	52.16
<b>Total</b>	<b>232</b>	<b>100.0 %</b>

**Source: Primary Data.**

Table 4.21 shows that most of the surveyed companies; 52.2% have over 250 employees; 34.1% have 51 to 250 employees and 11.6% have between 11 to 50 employees. Only 1.7% of the surveyed companies have up to 10 employees. The results therefore show that majority of the detergent manufacturing companies in Kenya have over 250 employees. In line with the classification by Kenya National Bureau of statistics (2019) survey, 1.72% of the firms are micro (employ up to 10 employees),



46.12% are small and medium enterprises (employ up to 250 employees) and 52.16% of the firms are large enterprises (employ over 250 employees).

#### **4.6.2.2 Company's Ownership Structure**

The study set out to find out the ownership structure of the companies participating in the study. This was imperative to determine the most prevalent ownership structure of the business in the industry under review since detergent manufacturing companies are an important cog in the achievement of the country's big four agenda and the Vision 2030 strategy. The summary of results from the evaluation in regards to this aspect of study is presented in Table 4.22.

**Table 4.22: Respondents' Summary by Firm's Ownership Structure**

<b>Firm ownership</b>	<b>Frequency</b>	<b>Percent (%)</b>
Locally owned	158	68.1
Foreign owned	70	30.2
Both locally and foreign owned	4	1.7
<b>Total</b>	<b>232</b>	<b>100 %</b>

**Source: Primary Data.**

The findings in Table 4.22 show that the highest proportion of the detergent manufacturing companies operating under the Kenya Association of Manufacturers umbrella that were surveyed are wholly locally owned (68.1%). The results further show that 30.2% of the companies under study were foreign owned and only 1.7% of the companies are both locally and foreign owned. The high percentage of locally owned firms could be as result of the entrepreneurship spirit of Kenyans making many of them to venture in this industry. The results of the study also debunk the perception that most of the companies in this sector are foreign owned.

#### 4.6.2.3 Descriptive Statistics for Firm Location

The study sought to assess how respondents discerned location under firm characteristics manifested in influencing the salesforce performance in the detergent manufacturing companies in Kenya. The respondents were asked to indicate their agreement to a set of seven statements on the location of their firm using a Likert scale ranging from 1 (very small) to 5 (very large extent). The results are presented in Table 4.25.

**Table 4.23: Descriptive Statistics for Location**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
My firm is situated in a strategic location for ease of accessibility	232	3.3636	1.00316	29.8
My firm's location makes it easy to be accessed by customers by road	232	2.8398	.87743	30.9
My firm is served by roads that are in good condition making it easy for transport of raw materials and finished products	232	3.3203	.77542	23.4
My firm is easily accessible by road for the ease of suppliers and customers	232	3.4236	.89813	26.2
My firm is located near its key customers to cut down on the time for transporting finished goods	232	2.6379	.93417	35.4
My firm is serviced by roads in good condition cutting down on transport costs when receiving raw materials from suppliers	232	2.6595	1.00669	37.9
My firm is situated in a safe neighborhood cutting down on safety and security expenses	232	2.8355	1.05449	37.2
<b>Overall</b>		<b>3.0114</b>	<b>0.9356</b>	<b>31.54</b>

**Source: Primary Data.**

The results of the descriptive statistics of the firm location showed that it had a mean score of 3.01, standard deviation of 0.9356 and coefficient of variation of 31.5%. The

highest mean was 3.4236 for the statement that “My firm is easily accessible by road for the ease of suppliers and customers”. The lowest mean was 2.6379 for the statement that “My firm is located near its key customers to cut down on the time for transporting finished goods”. The overall CV of 31.5% is good implying that location as a construct of firm characteristics is a key influence of salesforce performance in the detergent manufacturing companies in Kenya.

#### 4.6.2.4 Descriptive Statistics for Manufacturing Facilities

The study sought to find out from the respondents their perception on the manufacturing facilities as a measure of firm characteristics in their firm. Six statements were used to collect the data and the respondents were asked to indicate their agreement to the statements regarding the manufacturing facilities in their firm using a Likert scale ranging from 1 (very small) to 5 (very large extent). The results are presented in Table 4.24.

**Table 4.24: Descriptive Statistics for Manufacturing Facilities**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
My firm has state of the art manufacturing facilities to support its operations.	232	2.5065	.99070	39.52
My firm has adequate facilities to support its production needs	232	2.5517	1.02645	40.22
My firm has adequate storage facilities to avoid product stock outs	232	2.6061	1.01114	38.79
My firm outsources production of some of its products due to inadequate production capacity	232	2.6207	.99918	38.12
My firm has adequate physical facilities to support its operations.	232	2.5905	.93071	35.92
My firm possess adequate financial resources to support its operations	232	3.1894	1.07846	33.81
<b>Overall</b>		<b>2.68</b>	<b>1.00</b>	<b>37.73</b>

**Source: Primary Data.**

The results of the descriptive statistics of the manufacturing facilities had a mean score of 2.68, standard deviation of 1.00 and coefficient of variation of 37.73%. The highest mean was 3.1894 stating that “My firm possesses adequate financial resources to support its operations”. The lowest mean was 2.5065 stating that “My firm has state of the art manufacturing facilities to support its operations”. The overall CV of 37.73% is good implying that manufacturing facilities as a construct of firm characteristics is important in determining salesforce performance among the detergent manufacturing companies in Kenya.

#### 4.6.2.5 Summary Statistics for Firm Characteristics

The firm characteristics sub-variables were evaluated after the individual component scores were collapsed into composite scores. The summary of descriptive statistics for firm characteristics sub-components are presented in Table 4.25.

**Table 4.25: Summary Descriptive Statistics for Firm Characteristics**

<b>Firm characteristics</b>	<b>N</b>	<b>Mean Score</b>	<b>Std. Deviation</b>	<b>Cv (%)</b>
Location	232	3.01	0.94	31.54
Manufacturing facilities	232	2.68	1.00	37.73
<b>Overall</b>	<b>232</b>	<b>2.85</b>	<b>0.97</b>	<b>34.64</b>

**Source: Primary Data.**

The results in Table 4.25 indicate that the mean score of the sub-variables of the firm characteristics was 2.85 with a standard deviation of 0.97 and a coefficient of variation (CV) of 34.64%. This shows that firm characteristics are moderately manifested in the detergent manufacturing companies in Kenya as also indicated by a CV of 34.64% implying that it is a good contributor to salesforce performance. The sub-variable with highest manifestation is location with mean score of 3.01, followed by manufacturing

facilities with a mean of 2.68. Manufacturing facilities had the biggest coefficient of variation at (37.73%), slightly greater than the other sub-variable, but it is still a critical contributor to salesforce performance. Location had the smallest coefficient of variation (31.54%) compared to manufacturing facilities, indicating that it was viewed as being manifested highly among the detergent manufacturing companies in Kenya and thus contributing highly to salesforce performance.

#### **4.6.3 Descriptive Statistics for Salesforce Training**

Salesforce training was also a key variable and had five measurement items that is, training methods, training content, trainers, training venues and training frequency. The results are summarized in sections below.

##### **4.6.3.1 Descriptive Statistics for Training Methods**

The respondents were requested to indicate their agreement on which training methods were used in their firm on a Likert scale ranging from 1 (very little extent) to 5 (very large extent). Five statements were used to collect the data. The results are presented in Table 4.26.

**Table 4.26: Descriptive Statistics for Training Methods**

<b>Training Methods</b>	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
On the job training	232	3.01	0.62	20.59%
Class room lectures	232	4.11	0.85	20.70%
Online training	232	4.04	0.85	21.04%
Role playing	232	4.15	1.26	30.36%
Job rotation	232	4.02	1.47	36.57%
<b>Overall</b>		<b>3.87</b>	<b>1.01</b>	<b>26.10</b>

**Source: Primary Data.**

The overall mean score for salesforce training content was 3.87, standard deviation of 1.01 and coefficient of variation of 26.10%. The training method with the highest mean score at 4.15 was role playing while the training method with the lowest mean score at 3.01 was on the job training. An overall CV of 26.10% shows that the training methods construct is critical in influencing salesforce performance in the detergent manufacturing companies in Kenya.

#### **4.6.3.2 Descriptive Statistics for Salesforce Training Content**

The respondents were also requested to show the degree to which they viewed training content under salesforce training influenced salesforce performance among the detergent manufacturing companies in Kenya. They were to indicate their agreement to a set of twelve statements using a Likert scale ranging from 1 (very little extent) to 5 (very large extent). The related results are presented in Table 4.27.

**Table 4.27: Descriptive Statistics for Salesforce Training Content**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
My firm organizes training about the company so that the salesforce understands about the company history	232	3.4416	.81016	23.5
My firm offers training on company products to improve on salesforce knowledge skills	232	3.5415	.90529	25.6
My firm organizes training on selling skills to improve the competitiveness of the salesforce	232	2.7198	.94614	34.8
My firm offers training about competition to improve on its competitive position	232	2.7672	1.03076	37.3
My firm offers training on time management to improve on efficiency	232	2.8646	1.04463	36.5
My firm offers training on cost management so as to improve company profitability	232	2.7888	1.16339	41.7
My firm organizes training on customer relationship management so as to improve on customer retention	232	2.7500	1.19794	43.6
My firm offers training on report writing so as to improve communication skills	232	2.8060	1.16268	41.4
My firm organizes training on finance management to improve on profitability	232	2.7069	1.01944	37.7
My firm organizes training on safety and security to avoid accidents and incidents	232	2.6509	.96412	36.4
My firm offers team building training to improve on teamwork	232	2.6853	1.10495	41.2
My firm organizes training on crisis management to minimize disruption on its operations	232	3.2759	.96328	29.4
<b>Overall</b>		<b>2.92</b>	<b>1.03</b>	<b>35.7</b>

**Source: Primary Data.**

The overall mean score for salesforce training content was 2.92, standard deviation of 1.03 and coefficient of variation of 35.7%. The highest mean score was 3.5415 stating that “My firm offers training on company products to improve on salesforce knowledge

skills”. The lowest mean score was 2.6509 stating that “My firm organizes training on safety and security to avoid accidents and incidents”. The overall CV of 35.7 % implies that training content plays an important role in salesforce performance in the detergent manufacturing companies in Kenya.

#### 4.6.3.3 Descriptive Statistics for Salesforce Trainers

The respondents were requested to indicate the trainers used in their firms to facilitate salesforce training on a Likert scale ranging from 1 (very little extent) to 5 (very large extent). The results are summarized in Table 4.28.

**Table 4.28: Descriptive Statistics for Salesforce Trainers**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>C.V (%)</b>
My firm uses company trainers from within the company to cut down on costs	232	2.5776	.89395	34.7
My firm uses hired trainers from within the country to tap in on different expertise	232	2.8276	.78708	27.8
My firm uses trainers from sister companies in other countries for training to share knowledge from different countries	232	2.9784	.86513	29.0
My firm uses hired specialists for the different training it offers	232	2.8405	.85051	29.9
My firm hires trainers from institutions of higher learning from within the country for specialized training	232	2.8578	.93583	32.7
My firm hires trainers from institutions of higher learning from outside the country for specialized training	232	3.0348	.91975	30.3
My firm uses more experienced salespeople to train other salespeople	232	2.8448	.91740	32.2
My firm uses managers to train the salesforce	232	3.3405	.87806	26.3
<b>Overall</b>		<b>2.91</b>	<b>0.88</b>	<b>30.4</b>

**Source: Primary Data.**



The results show that the constructs under salesforce trainers gave a mean score of 2.91, standard deviation of 0.88 and coefficient of variation of 30.4%. The highest mean score was 3.3405 for the statement “My firm uses managers to train the salesforce”. The lowest mean was 2.5776 for the statement stating that My firm uses company trainers from within the company to cut down on costs .The mean score of 2.91 shows that salesforce trainers play an important part in determining salesforce performance in the detergent manufacturing companies in Kenya.

#### **4.6.3.4 Descriptive Statistics for Training Venues**

The respondents were implored to indicate the training venues used by the detergent manufacturing companies in Kenya to conduct training for their salespeople. A set of seven statements were used to collect the data and the respondents were to rate them using a Likert scale ranging from 1 (very little extent) to 5 (very large extent). The results are presented in Table 4.29.

**Table 4.29: Descriptive Statistics for Training Venues**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
My firm organizes for training within the company premises to save on costs	232	3.4224	.97724	28.6
My firm organizes for training outside the company premises but within the country to avoid training disruptions	231	2.8398	.80508	28.4
My firm organizes for training in other sister companies premises in other countries to encourage sharing of different experiences	231	3.3680	.73934	22.0
My firm organizes for training in other countries away from company premises to avoid training disruptions	228	3.4781	.85744	24.7
My firm organizes for training in institutions of higher learning within the country to tap on experiences of local experts	232	2.5647	.86548	33.7
My firm organizes for training in institutions of higher learning outside the country for specialized training	232	2.6078	.93814	36.0
My firm organizes for training at the individual's work station to cut on costs	230	2.7087	.95644	35.3
<b>Overall</b>		<b>3.00</b>	<b>0.88</b>	<b>29.8</b>

**Source: Primary Data.**

The results shows that training venues had an average mean score of 3.00, a standard deviation of 0.88 and a coefficient of variation of 29.8%. The highest mean score was 3.4781 and a CV of 24.7% which was for the statement “My firm organizes for training in other countries away from company premises to avoid training disruptions” while the least mean score was 2.5647 and a CV of 33.7% for the statement “My firm organizes for training in institutions of higher learning within the country to tap on experiences of local experts”. A mean score of 3.00 and CV of 29.8% show a moderate manifestation for the training venues indicating that training venue plays an important role in influencing the

performance of the salesforce in the industry. It also shows that the companies utilize different training venues to conduct their training.

The study further determined the frequency which most closely corresponds to the training of the salesforce in respective companies. Four constructs of training frequency namely weekly, monthly, quarterly and annually were used and the respondents were to rate them on a Likert scale ranging from 1 (very little extent) to 5 (very large extent) and the results are presented in Table 4.30.

**Table 4.30: The Frequency of Training**

<b>Salesforce training frequency</b>	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
Weekly	232	1.02	0.32	31.37%
Monthly	232	2.05	0.81	39.51%
Quarterly	232	4.02	1.67	41.54%
Annually	232	1.01	0.47	46.53%
<b>Overall</b>		<b>2.03</b>	<b>0.82</b>	<b>40.00</b>

**Source: Primary Data.**

The results show that the constructs under salesforce training frequency gave a mean score of 2.03, standard deviation of 0.82 and coefficient of variation of 40.0%. The highest mean was quarterly with a mean of 4.02 followed by monthly with a mean score of 2.05 and weekly at 1.02. Annual training had the lowest mean score at 1.01. The overall mean score of 2.03 implied that salesforce training frequency in the industry was mostly monthly. It also showed that salesforce training frequency had an influence on the salesforce performance.

#### 4.6.3.5 Summary Descriptive Statistics for Salesforce Training

An aggregate of the composite scores of individual variables of salesforce training, that is, salesforce training content, salesforce trainers, salesforce training venues, salesforce training methods and salesforce training frequency was calculated. The results from the measurements of this variable are presented in Table 4.31.

**Table 4.31: Summary Descriptive Statistics for Salesforce Training**

<b>Salesforce training</b>	<b>N</b>	<b>Mean Score</b>	<b>Std. Deviation</b>	<b>Cv (%)</b>
Salesforce training content	232	2.92	1.03	35.27%
Salesforce Trainers	232	2.91	0.88	30.40%
Training Venues	232	3.00	0.88	29.80%
Salesforce training methods	232	3.87	1.01	26.10%
Salesforce training frequency	232	2.03	0.82	40.00%
<b>Overall</b>	<b>232</b>	<b>2.95</b>	<b>0.92</b>	<b>32.31%</b>

The results in Table 4.31 indicate that the overall mean score of the individual variables of the salesforce training was 2.95 with a standard deviation of 0.92 and a coefficient of variation (CV) of 32.31%. This indicates that salesforce training is moderately manifested in the detergent manufacturing companies in Kenya as also indicated by a CV of 32.31% implying that it is an important contributor to salesforce performance. The sub-variable with highest manifestation is salesforce training methods with mean score of 3.87 followed by training venues with mean score of 3.0, and training content with a mean of 2.92. Salesforce trainers had a mean score of 2.91 and salesforce training frequency at 2.03, meaning that all salesforce training constructs were viewed as being manifested highly among the detergent manufacturing companies in Kenya and thus contributing highly to salesforce performance.

#### **4.6.4 Salesforce Performance**

The descriptive statistics for salesforce performance (the predicted variable) was made up of two main constructs of measurement namely: salesforce behavior based performance (SFBBP) and salesforce outcome based performance (SFOBPP).

##### **4.6.4.1 Descriptive Statistics for Salesforce Behavior Based Performance**

The respondents were asked to rate the extent to which salesforce behavior based performance manifested itself in the detergent manufacturing companies in Kenya. The respondents were to indicate their agreement to a set of ten statements using a Likert scale varying from 1 (very little extent) to 5 (very large extent). The results are summarized in Table 4.32.

**Table 4.32: Descriptive Statistics for Salesforce Behaviour Based Performance**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>CV (%)</b>
I prepare adequately for sales presentations for the customers in advance to save on time	232	2.4957	.99782	40.0
I always book for appointments with customers before going out for the meetings to save on time	232	2.5603	.98287	38.4
I prepare and submits monthly reports on time	232	2.5216	.92557	36.7
I always operate within set company budgets	232	2.4871	.85270	34.3
I offer after sales service to the customers to make sure that they are satisfied	232	2.5431	1.04357	41.0
I supply the customers with brochures and any other relevant supporting materials for the company products to ensure they understand the products well	232	3.1422	.86866	27.6
I have good presentation skills to help gain customer confidence	232	3.4892	.92718	26.6
I carry out product demonstrations to help gain new business	232	3.6422	.87610	24.1
I seek feedback from my managers on my performance to ensure continuous improvement	232	3.7371	.78117	20.9
I have appropriate knowledge of the company's products to enable me offer best solutions to the customers	232	3.7155	.88573	23.8
<b>Overall</b>		<b>3.02</b>	<b>0.90</b>	<b>30.9</b>

**Source: Primary Data.**

The results for salesforce behavior based performance showed an average mean score of 3.02, standard deviation of 0.90 and coefficient of variation of 30.9%. The highest mean score was 3.73 for the statement stating that “I seek feedback from my managers on my performance to ensure continuous improvement”. The lowest mean was 2.48 for the statement stating that “I always operate within set company budgets’. Salesforce behavior based performance therefore manifests strongly among the sales people in the detergent manufacturing companies in Kenya. It implies that salesforce behavior based

performance contributes to the overall salesforce performance in the detergent manufacturing companies in Kenya.

#### 4.6.4.2 Descriptive Statistics for Salesforce Outcome Based Performance

The respondents were requested to indicate the extent to which they agreed with a set of questions on their performance using a Likert scale which varied from 1 (very little extent) to 5 (very large extent). A set of eight questions were used to correct the feedback. The results are presented in Table 4.33.

**Table 4.33: Descriptive Statistics for Salesforce Outcome Based Performance**

<b>One-Sample Statistics</b>				
	<b>N</b>	<b>Mean Score</b>	<b>S.D</b>	<b>C.V (%)</b>
I achieve my sales target every year	228	2.5833	1.01404	39.3
I identify and sell to new accounts every year	229	2.5371	.98883	39.0
I sell new products with high profit margins every year	229	2.5721	.95985	37.3
I sell new products to the customers every year	229	2.3755	.96814	40.8
I achieve the set target for product demos every year	232	2.7284	.89223	32.7
I achieve the set profit targets every year	232	2.8836	.83707	29.0
I achieve the set target for customer visits every year	232	4.0302	.88955	22.1
I achieve the set target for new products every year	232	3.5388	.80488	22.7
<b>Overall</b>		<b>2.86</b>	<b>0.94</b>	<b>32.86</b>

**Source: Primary Data**

The results indicate that the average mean score for salesforce outcome based performance was 2.86, standard deviation of 0.94 and coefficient of variation of 32.86%.

The highest mean score was 4.03 for the statement stating that “I achieve the set target

for customer visits every year” while the lowest mean score was 2.38 for the statement stating “I sell new products to customers every year”. The overall mean score was 2.86 and an overall CV of 32.86%. This shows that salesforce outcome based performance is a strong contributor to the overall salesforce performance.

#### 4.6.4.3 Summary of Descriptive Statistics for Salesforce Performance

An aggregate of the composite scores of individual variables of salesforce performance, that is, salesforce behavior based performance and salesforce outcome based performance was calculated. The results from the measurements of this variable are presented in Table 4.34.

**Table 4.34: Summary Descriptive Statistics for Salesforce Performance**

<b>Salesforce performance</b>	<b>N</b>	<b>Mean Score</b>	<b>Std. Deviation</b>	<b>Cv (%)</b>
Salesforce behavior based performance	232	3.02	0.90	30.90%
Salesforce outcome based performance	232	2.86	0.94	32.86%
<b>Overall</b>	<b>232</b>	<b>2.94</b>	<b>0.92</b>	<b>31.88%</b>

The results in Table 4.34 indicate that the overall mean score of the individual variables of the salesforce performance was 2.94 with a standard deviation of 0.92 and a coefficient of variation (CV) of 31.88%. The sub-variable with highest manifestation is salesforce behavior based performance with mean score of 3.02 followed by salesforce outcome based performance with mean score of 2.86.

#### 4.7 Statistical Assumptions

There are different assumptions for statistical tests that the study variables should meet. Regression analysis is based on four fundamental assumptions since its objective is to predict the strength and direction of relationship between the study



variables. These are normality, linearity, homoscedasticity/homogeneity of variance and independence assumptions.

#### 4.7.1 Test of Normality

To be able to carry out inferential parametric statistical procedures, it is a requirement that the data to be tested is normally distributed. Ghasemi and Zahediasl (2020) propose that the assumption of normality should be checked before carrying out any parametric test, since validity depends on it. Normality test was intended to ascertain whether data was distributed normally. When normality is absent, using statistical tests that assume normality may not be appropriate. The Shapiro-Wilk test was used to test for normality. This test establishes the degree of normality of the data by uncovering existence of skewness or kurtosis or both. The range for Shapiro-Wilk statistics spreads from zero to one with figures greater than 0.05 implying that the data is normal (Razali & Wah, 2020).

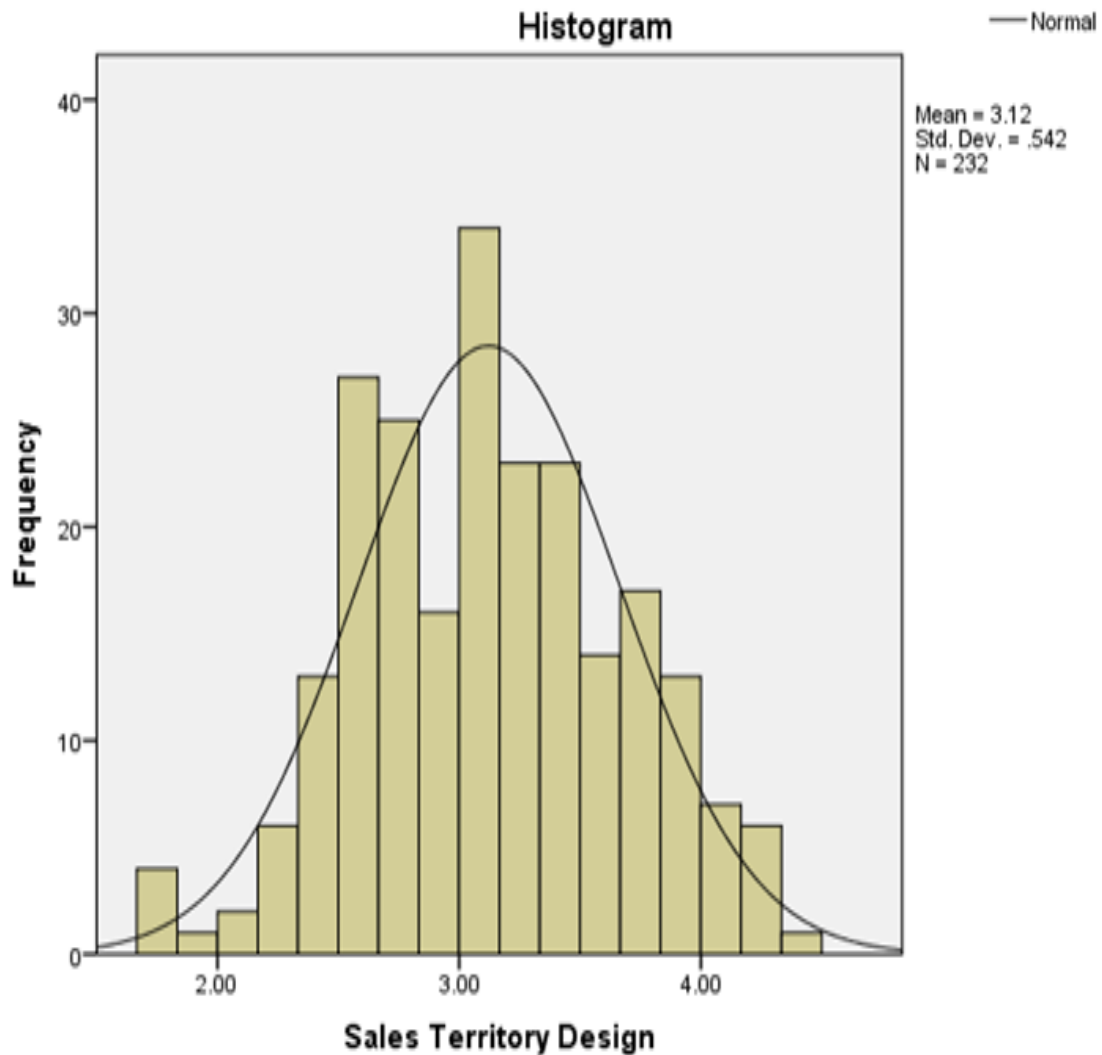
**Table 4.35: Test of Normality**

	Shapiro-Wilk		
	Statistic	df	Sig.
Sales Territory Design	0.991	232	0.185
Firm Characteristics	0.992	232	0.229
Salesforce Training	0.988	232	0.057
Salesforce Performance	0.972	232	0.060

**Source: Primary Data.**

Normality tested using the Shapiro-Wilk method, showed that all the variables were above 0.05 ( $p > 0.05$ ) hence confirming data normality. As indicated in Table 4.35, the p-values for the Shapiro-Wilk tests were 0.185 for sales territory design, 0.229 for firm

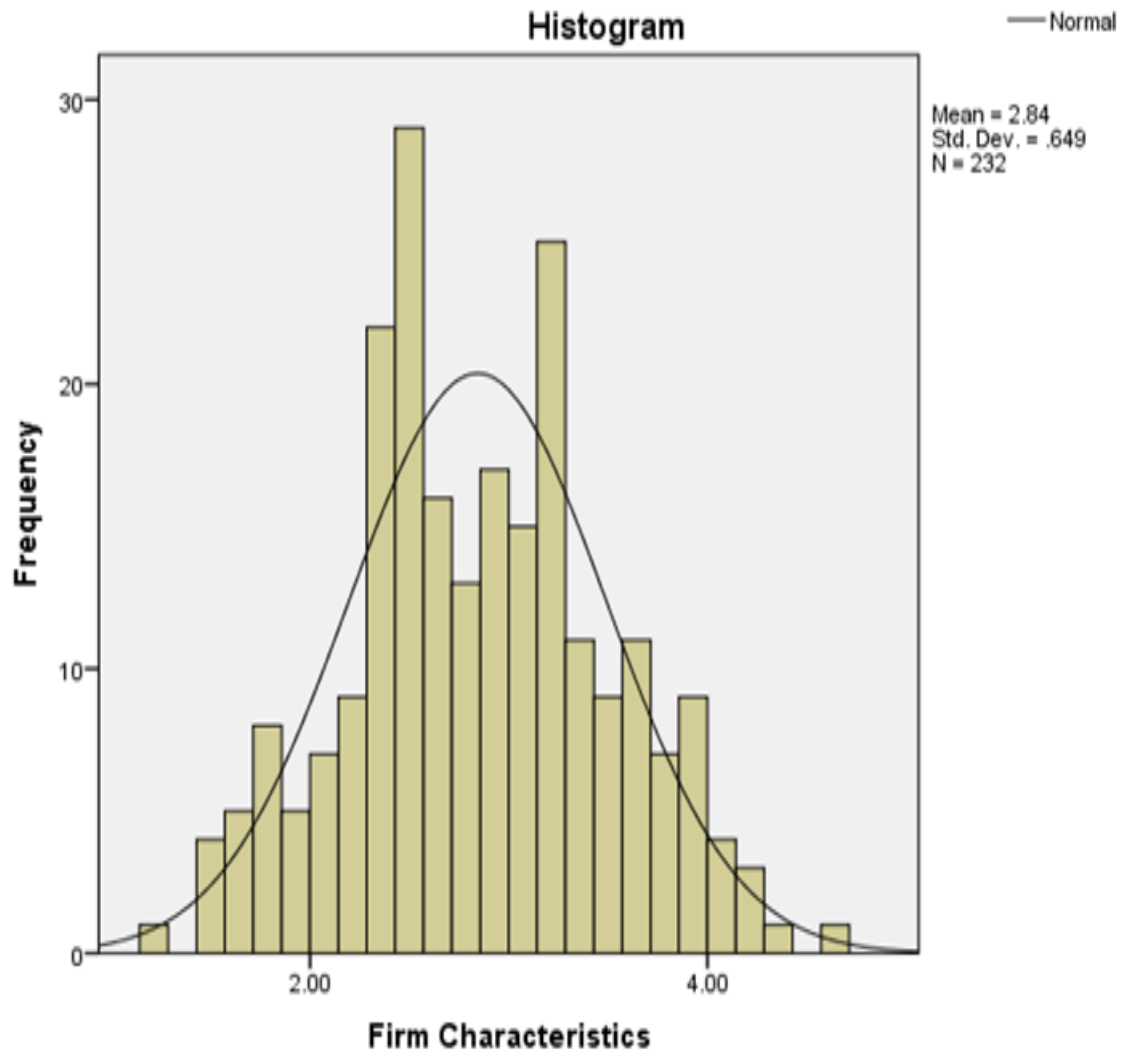
characteristics, 0.057 for Salesforce Training and 0.060 for salesforce performance. Since all the p-values were bigger than the cutoff point of 0.05, this attests the hypothesis that data was collected from a population, which is normally distributed. Histograms were also used to show the normality curve form the Likert scale. This is as shown in Figure 4.1 to 4.4.



**Figure 4.1: Normal Plot for Sales Territorial Design**

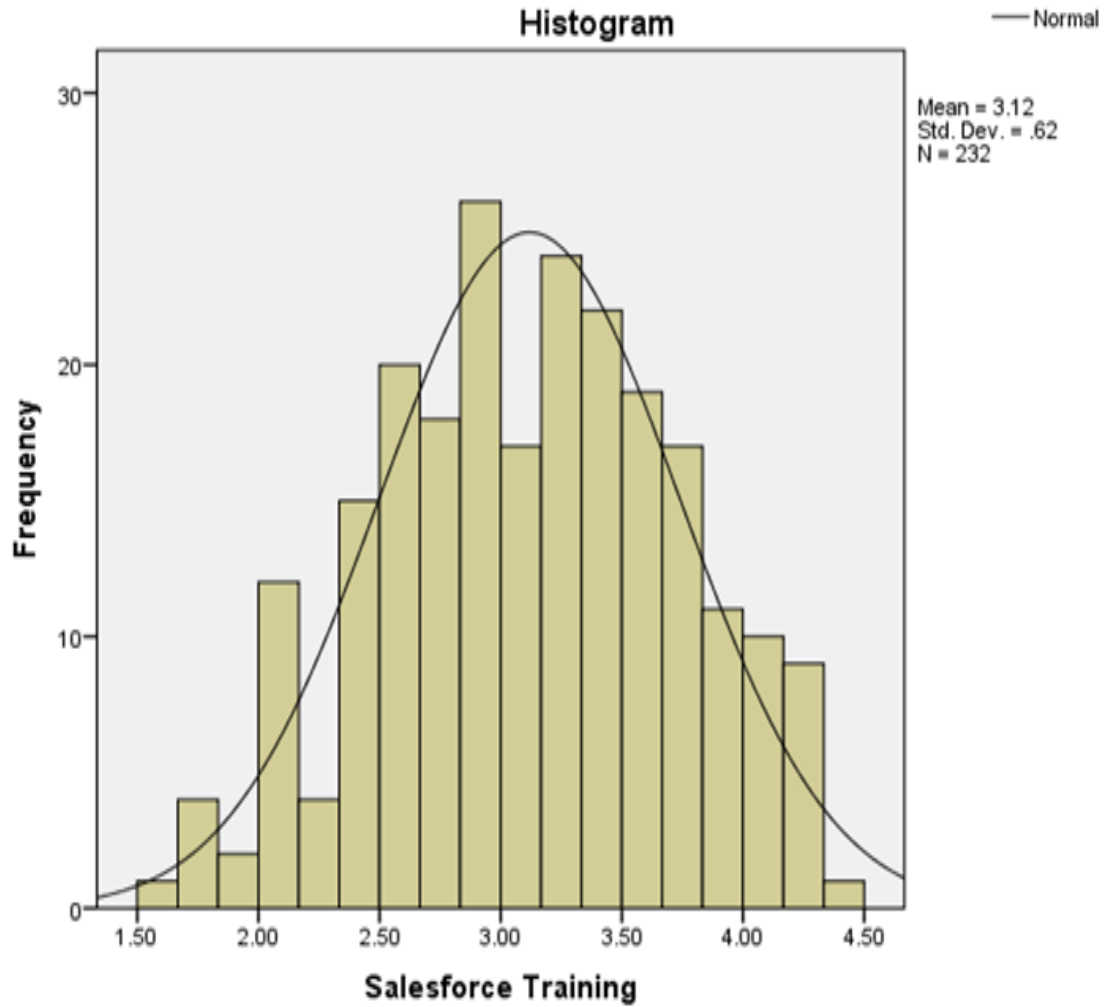
**Source: Primary Data.**

Figures 4.1 shows that the sampling distribution for sales territorial design is normal. This is indicated by the curve as symmetrical and bell shaped, showing that the data gives a result near the average with small deviations.



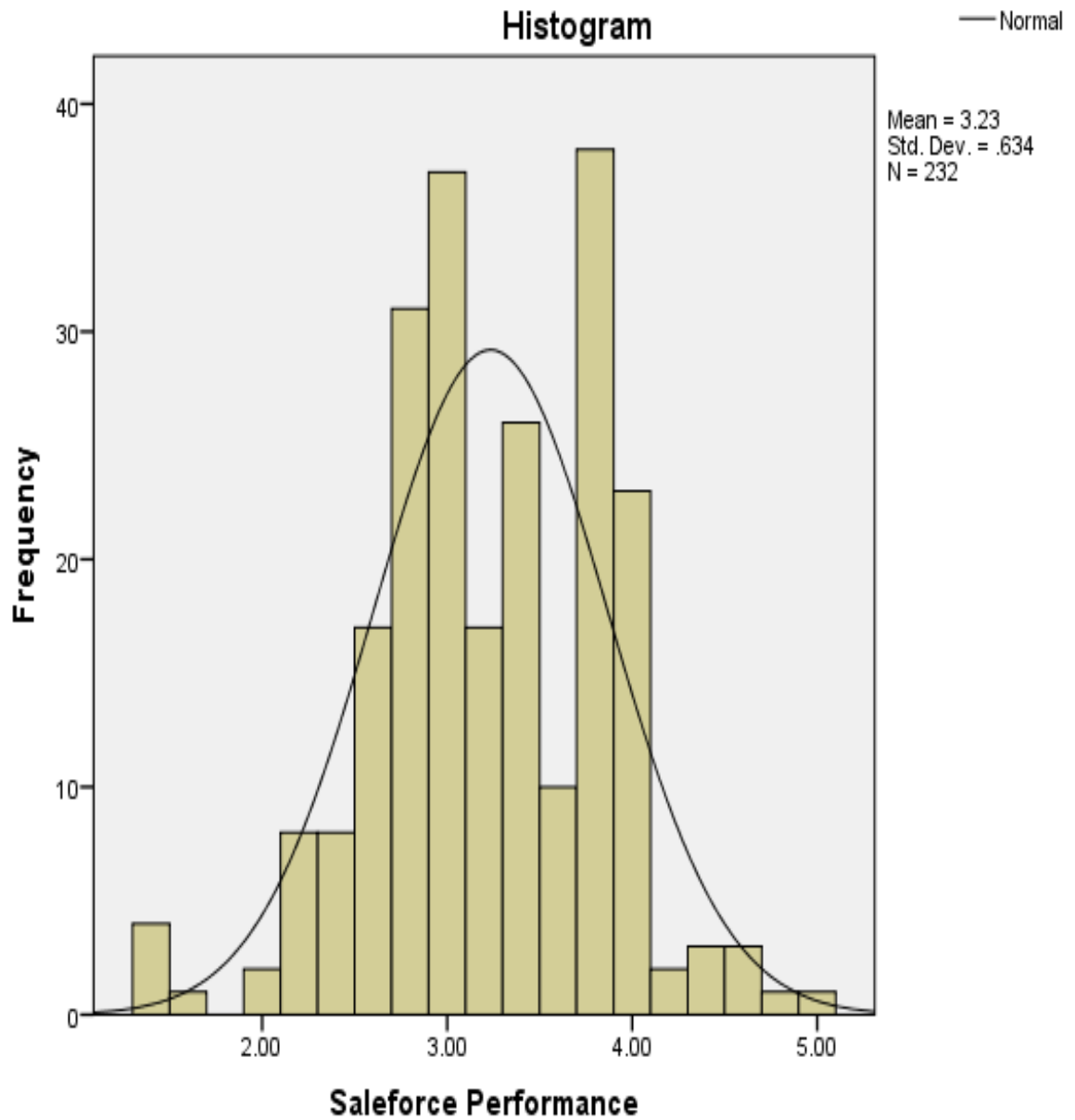
**Figure 4.2: Normal Plot for Firm Characteristics**

Figure 4.2 shows that the sampling distribution for firm characteristics is normal. The curve is symmetrical and bell shaped, showing that the data gives a result near the average with small deviations.



**Figure 4.3: Normal Plot for Salesforce Training**

Further, Figures 4.3 shows that the sampling distribution for salesforce training is normal as the curve was symmetrical and bell shaped, implying that the data gives a result near the average with small deviations



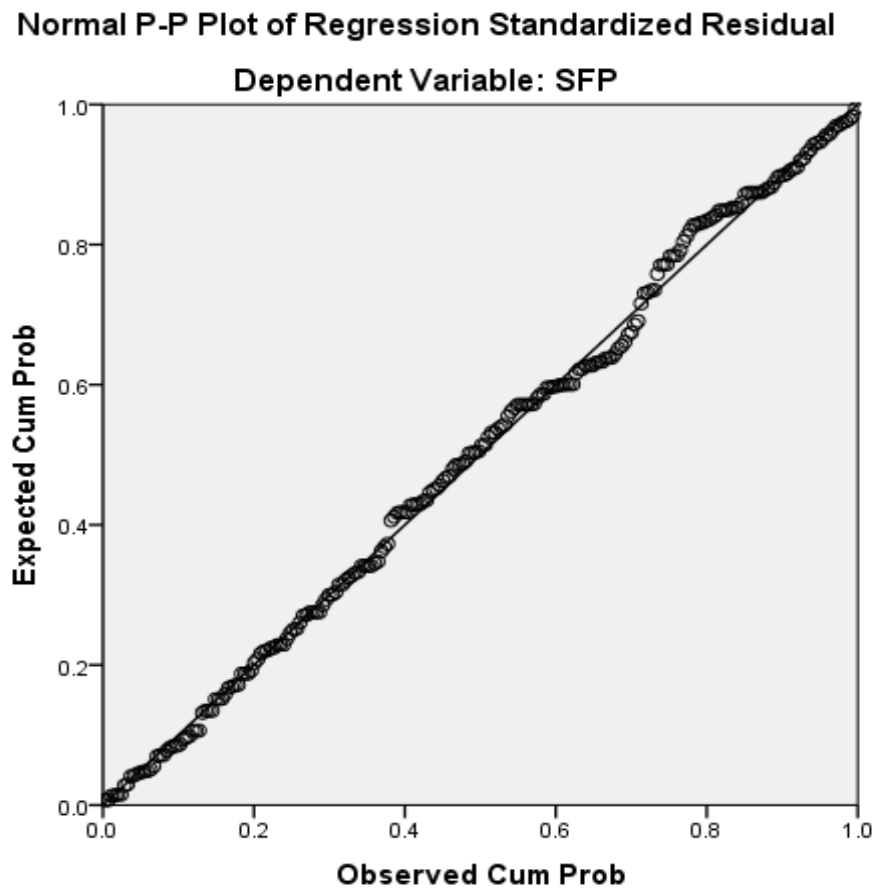
**Figure 4.4: Normal Plot for Sales Performance**

Figure 4.4 indicates that the sampling distribution for sales performance is also normal.

The distribution curve was symmetrical and bell shaped, indicating that the data gives a result near the average with small deviations. In summary, the histograms indicated that the sampling distribution for all the variables was normal.

#### 4.7.2 Test of Linearity

To diagnose the status of this assumption, the linear relationship between the predictors with the dependent variable was assessed by plotting the residuals of the predictors against the dependent variable. Linearity is confirmed if the line of best fit seems to be similarly linearly related with that of the predictors. From the results in Figures 4.5 residual plot confirms that data was collected from a normally distributed population.



**Figure 4.5: Linear Relationship between Sales Territory Design, Firm Characteristics, Training and Salesforce Performance**

### 4.7.3 Test for Homoscedasticity

Homoscedasticity tests whether the error term depicted between the independent variables and the dependent variable is similar in all independent variables. Homoscedasticity was measured by Levene's test of the non-constant variance test. This test investigates whether or not the variance between the independent and dependent variables is the same. If the Levene's Test for Equality of Variances is statistically significant  $\alpha = 0.05$  this illustrates that the group variances are unequal. It is a test as to whether the spread of the scores in the variables are approximately the same.

**Table 4.36: Test of Homogeneity of Variances**

<b>Test of Homogeneity of Variances</b>				
	Levene Statistic	df1	df2	Sig.
Sales Territory Design	1.659	14	214	.066
Firm Characteristics	2.061	14	214	.075
Salesforce Training	1.881	14	214	.060

**Source: Primary Data.**

As presented in Table 4.36 above, the significant values for the Levene's test were 0.066 for salesforce territory design, 0.075 for firm characteristics and 0.060 for salesforce training. From the results, P-values of Levene's test for homogeneity of variances were all bigger than 0.05. The test therefore was not statistically significant at  $\alpha = 0.05$  thus verifying homogeneity.

### 4.7.4 Test of Multicollinearity

Multicollinearity test was conducted to assess whether high correlation existed between one or more variables in the study with one or more of the other independent variables. A common rule of thumb is that VIFs of 10 or higher (

conservatively over 5) points to severe multi-collinearity that affects the study (Newbert, 2018). A tolerance threshold value of below 0.2 indicates that collinearity is present (Menard, 2020). Table 4.37 presents the result of tests for Multicollinearity.

**Table 4.37: Multicollinearity Results**

Model	Collinearity Statistics	
	Tolerance	VIF
( Constant)		
Sales Territory Design	.249	4.022
Firm Characteristics	.284	3.519
Salesforce Training	.276	3.625

**Source: Primary Data.**

As shown in Table 4.37 above, the results revealed no problem with Multicollinearity. The variables of the study indicated VIF values of 4.022 for STD, 3.519 for FC and 3.625 for SFT, which are all less than 10 as recommended by the rule of thumb. This indicated that the data set displayed no Multicollinearity.

#### 4.7.5 Auto-correlation Test

Auto-correlation assumption that implies zero covariance of error terms over time. That means errors associated with one observation are uncorrelated with the errors of any other observation. The Durbin Watson test was used to detect serial correlation where the hypothesis indicates that serial correlation in a certain order of residuals is not significant.

**Table 4.38: Auto-correlation Test (Durbin-Watson Test)**

Variable	Durbin-Watson	Remarks
Sales Territory Design	1.860	Auto-correlation absent
Firm Characteristics	1.933	Auto-correlation absent
Salesforce Training	1.788	Auto-correlation absent

**Source: Primary Data.**



As indicated in the Durbin-Watson test whose statistic ranges from zero to four. In the current study, the test results were between 1.788 and 1.933, which are near to 2 thus supporting independence of error terms thus implying no or absence of auto-correlation problem. This therefore shows that the error terms are uncorrelated to each other. From the above results, the data has met the requirements for the assumptions of normality, linearity, homoscedasticity and homogeneity and therefore qualifies for further manipulation using regression analysis.

#### **4.8 Correlation Analysis**

Pearson correlation was applied to determine the degree of association among the variables of the study, which are the predictor variables (sales territory design, firm characteristics and salesforce training), with the dependent variable (salesforce performance). Pearson correlation coefficients have values ranging from -1 to +1 with negative figures indicating negative correlation and positive figures showing positive correlation. Pearson coefficient  $r < 0.3$  show weak correlation, Pearson coefficient  $0.3 > r < 0.5$  shows moderate correlation and Pearson coefficient  $r > 0.5$  shows strong correlation. The correlation coefficient measures the strength of linear relationship between two variables of interest (Cooper & Schindler (2018) and it indicates that when  $r$  approaches +1 or -1, then the strength of association between the two variables under consideration is strong. The results presented in Table 4.39 show individual indicators and how they relate to each other.

**Table 4.39: Correlation Analysis Results**

	<b>Sales Territory Design</b>	<b>Firm Characteristics</b>	<b>Salesforce Training</b>	<b>Salesforce Performance</b>
Sales Territory Design	1			
Firm Characteristics	.818** .000	1 .000		
Salesforce Training	.824** .000	.796** .000	1 .000	
Salesforce Performance	.792** .000	.527** .000	.565** .000	1 .000

**Source: Data Analysis**

The analysis shows that sales territory design had the greatest positive influence on salesforce performance ( Pearson correlation coefficient (r) =.792 and P<0.05) indicating that the relationship is statistically significant. Moreover, salesforce training was positively correlated to salesforce performance (r =.565 and P<0.05) indicating a statistically significant relationship. Additionally, firm characteristics also presented strong and statistically significant relationship (r=.527 and P<0.05). This shows that sales territory design, firm characteristics and sales force training are important factors in influencing salesforce performance.

#### **4.9 Chapter Summary**

The chapter has presented the study results showing the response rate, reliability and validity of the questionnaire, factor analysis, respondents' demographic profiles and descriptive statistics. Frequency tables, percentages, mean scores, standard deviation and coefficients of variation were used to present the descriptive statistics. The chapter has further presented statistical assumptions for the study which were test of normality, test of linearity, test of homoscedasticity, test of Multicollinearity, auto-correlation test and correlation analysis.

## **CHAPTER FIVE**

### **HYPOTHESES TESTING AND DISCUSSION OF STUDY FINDINGS**

#### **5.1 Introduction**

This study had six null hypothesis stating; there is no significant relationship between sales territory design and salesforce performance in the detergent manufacturing companies in Kenya; there is no significant relationship between firm characteristics and salesforce performance; firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance; there is no significant relationship between salesforce training and salesforce performance; salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance; the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant. This chapter presents the results of hypotheses tests and discussions of the study findings.

#### **5.2 Test of Hypotheses**

In this section, results and findings of the regression analysis are documented and presented. Hypotheses were formed on the basis of theoretical review, empirical literature review as well as research objectives; they were tested using simple regression analysis for direct relationship in hypotheses one, two and four. Hierarchical Regression Analysis for testing moderation in hypotheses three and five and multiple regression analysis was used to test the joint effect in hypothesis six.

Coefficient of determination ( $R^2$ ) was used in this study as a tool capable of giving the variation in the outcome variable explained by the predictor variable (s). This

measure was therefore important in showing how each variable provided useful information in reference to the dependent variable. However, in testing joint effect, adjusted  $R^2$  was utilized. As noted by Anderson and Darling (1954), the adjusted  $R^2$  measure is useful where predictor variables are many and this is based on the fact that degrees of freedom tend to be lost as more variables are added.

The F-test was used as a test of goodness of fit for the overall regression whereas t-tests were utilized to establish independent contribution of each variable in the prediction of the outcome variable. Significance judgment was based on p-values. Rumsey (2020) documents the range of p-values as being between 0 and 1 where  $p\text{-value} \leq 0.05$  indicated strong evidence against the null hypothesis paving way for the rejection of the null hypothesis. However, a  $p\text{-value} > 0.05$  indicated weak evidence against the null hypothesis and as such fail to reject the null hypothesis. In the following sections of the chapter, findings of the analysis are presented along with the study objectives and corresponding hypotheses.

### **5.3 Relationship between Sales Territory Design and Salesforce Performance**

The first objective was to determine the effect of sales territory design on salesforce Performance. A simple regression analysis was utilized where sales territory design was regressed against salesforce performance. The hypothesis formulated was that;

**H<sub>01</sub>: There is no significant relationship between sales territory design and salesforce Performance**

Simple linear regression analysis was used to test this hypothesis and the results are presented in Table 5.1.

**Table 5.1: Model Fitness for Sales Territory Design**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835a	0.698	0.696	0.61729

As shown in Table 5.1, coefficient of determination of 0.698 shows that 69.8% percent of the variation in salesforce performance in detergent manufacturing companies in Kenya are accounted for by the changes in sales territory design. Thus, sales territory design is a major determinant of salesforce performance in detergent manufacturing companies in Kenya. The standard error of the estimate of 0.61729 indicated low variations.

**Table 5.2: ANOVA for Sales Territory Design**

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	202.27	1	202.265	530.807	.000b
Residual	87.64	230	0.381		
Total	289.91	231			

The ANOVA results in Table 5.2 indicate that the model for sales territory design on performance was significant in overall ( $F = 530.807$ ,  $P\text{-Value} < 0.05$ ). Thus, the model was robust and fit for prediction. Table 5.3 shows the coefficient for sales territory design.

**Table 5.3: Regression Coefficients for Sales Territory Design**

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
( Constant)	0.619	0.11		5.63	0.000
Sales Territory Design	0.808	0.035	0.835	23.039	0.000

The fitted model was;

$$SFP = 0.619 + 0.808STD$$

Where;

SFP= Salesforce performance. STD= Sales territory design

The coefficient of sales territory design was significant ( $\beta = 0.808$ ,  $t = 23.039$ ,  $p\text{-value} = 0.000 < 0.05$ ). Specifically, for every one unit increase in sales territory design, salesforce performance in detergent manufacturing companies in Kenya increases by 0.808 units holding other factors constant. The null hypothesis that sales territory design has no significant effect on salesforce performance in detergent manufacturing companies in Kenya was rejected. Thus, sales territory design has significant effect on salesforce performance in detergent manufacturing companies in Kenya.

#### **5.4 Relationship between Firm Characteristics and Salesforce Performance**

The second objective was to determine the effect of firm characteristics on salesforce performance. A simple regression analysis was utilized where firm characteristics was regressed against salesforce performance. The hypothesis formulated was that;

**H<sub>02</sub>: There is no significant relationship between firm characteristics and salesforce performance**

Simple linear regression analysis was used to test this hypothesis and the results are presented in Table 5.4

**Table 5.4: Model Fitness for Firm Characteristics**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.731a	0.534	0.532	0.76633

The results in Table 5.4 indicate that the coefficient of determination was 0.534, which shows that 53.4% percent of the variation in salesforce performance is accounted for by the changes in firm characteristics. Thus, firm characteristics is a major determinant of salesforce performance. The standard error of the estimate of 0.76633 indicated low variations.

**Table 5.5 ANOVA for Firm Characteristics**

ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	154.838	1	154.838	263.663	.000b
Residual	135.069	230	0.587		
Total	289.907	231			

The ANOVA results in Table 5.5 indicate that the model of firm characteristics on performance was significant in overall ( $F = 263.663$ ,  $P\text{-Value} = 0.000 < 0.05$ ). Thus, the model was robust and fit for prediction. Table 5.6 shows the coefficient for firm characteristics.

**Table 5.6: Regression Coefficients for Firm Characteristics**

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.964	0.134		7.217	0.000
Firm Characteristics	0.702	0.043	0.731	16.238	0.000

The fitted model was;

$$SFP = 0.964 + 0.702FC$$

Where;

SFP= Salesforce performance; FC= Firm characteristics

The results indicate that the coefficient of firm characteristics was significant ( $\beta = 0.702$ ,  $t = 16.238$ ,  $p\text{-value} = 0.000 < 0.05$ ). Specifically, for every one unit increase in firm characteristics, salesforce performance increases by 0.702 units holding other factors constant. The null hypothesis that firm characteristics have no significant effect on salesforce performance was rejected. Thus, firm characteristics have significant effect on salesforce performance.

### **5.5 Sales Territory Design, Firm Characteristics and Salesforce Performance**

The third objective of the study sought to analyze the moderating effect of firm characteristics on the relationship between sales territory design and salesforce performance. The hypothesis was stated;

**H<sub>03</sub>: Firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance.**

The hypothesis was tested using stepwise regression analysis. In step one, sales territory design was regressed on salesforce performance. In step two, sales territory design and firm characteristics were regressed on salesforce performance. In step three, the interaction term between sales territory design and firm characteristics was introduced. Moderation of the relationship is confirmed when the effect of interaction term is statistically significant. The results are presented in Table 5.7.



**Table 5.7: Model Fitness for Sales Territory Design and Firm Characteristics**

<b>Model Summary</b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.835a	0.698	0.696	0.61729	
2	.850a	0.723	0.720	0.59247	
3	.868a	0.754	0.751	0.55939	

The model fitness results show that in the first step sales territory design was regressed against salesforce performance. The results demonstrate that the influence of sales territory design on salesforce performance is significant ( $R^2=0.698$ ). Firm characteristics was added as a moderator in step two. The introduction of the firm characteristics moderator increased the influence of sales territory design on salesforce performance from 69.8% to 72.3%. Sales territory design together with firm characteristics explain 72.3% of the change in salesforce performance. In step three, the interaction term was introduced in the regression model. All the variables, sales territory design, firm characteristics and the interaction term (sales territory design\* firm characteristics) were entered in the regression model. The results reveal that  $R^2$  improved from 72.3% in step two to 75.4% in step three.

**Table 5.8: ANOVA for Sales Territory Design and Firm Characteristics**

<b>ANOVA</b>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	202.27	1	202.265	530.807	.000b
	Residual	87.64	230	0.381		
	Total	289.91	231			
2	Regression	209.522	2	104.761	298.445	.000b
	Residual	80.384	229	0.351		
	Total	289.907	231			
3	Regression	218.561	3	72.854	232.821	.000b
	Residual	71.345	228	0.313		
	Total	289.907	231			

The ANOVA results indicate that in the first step, the influence of sales territory design on salesforce performance is significant ( F=530.807, p=0.000). Firm characteristics was added as a moderator in step two. The overall model is statistically significant (F= 298.445, p=0.000). In step three, the interaction term was introduced in the regression model. All the variables, sales territory design, firm characteristics and the interaction term (sales territory design\*firm characteristics) were entered in the regression model. The overall model in step three indicate that the interaction is statistically significant (F= 232.821, p=0.000). Table 5.9 shows the coefficient results for sales territory design and firm characteristics.

**Table 5.9: Regression Coefficients for Sales Territory Design and Firm Characteristics**

Model		Coefficients				
		Unstandardized B	Coefficients Std. Error	Standardized Beta	Coefficients t	Coefficients Sig.
1	(Constant)	0.619	0.11		5.63	0.000
	Sales Territory Design	0.808	0.035	0.835	23.039	0.000
2	(Constant)	0.467	0.111		4.216	0.000
	Sales Territory Design	0.634	0.051	0.656	12.481	0.000
	Firm Characteristics	0.229	0.05	0.239	4.547	0.000
3	(Constant)	0.047	0.142		0.335	0.738
	Sales Territory Design	0.547	0.051	0.566	10.811	0.000
	Firm Characteristics	0.133	0.051	0.139	2.612	0.010
	Sales Territory Design*Firm Characteristics	0.065	0.012	0.251	5.375	0.000

**Source: Primary Data.**

The fitted model was:

$$SFP = 0.619 + 0.808STD$$

$$SFP = 0.467 + 0.634STD + 0.229FC$$

$$SFP = 0.047 + 0.547STD + 0.133FC + 0.065STD*FC$$

Where:

SFP= Salesforce performance; STD= Sales territory design; FC= Firm characteristics

STD\*FC = Interaction Term of Sales Territory Design and Firm characteristics

The results demonstrate that the influence of sales territory design on salesforce performance is significant ( $\beta = 0.808$ ,  $t = 23.039$ ,  $p < 0.05$ ). The results in the first step were all significant. Firm characteristics was added as a moderator in step two. The coefficients were statistically significant ( $\beta_1 = 0.634$ ,  $p = 0.000$ ,  $t = 12.481$ ,  $\beta_2 = 0.229$ ,  $p = 0.000$ ,  $t = 4.547$ ). In step three, the interaction term was introduced in the regression model. All the variables, sales territory design, firm characteristics and the interaction term (sales territory design\*firm characteristics) were entered in the regression model. The results reveal that the model in step three indicate that the interaction is statistically significant ( $\beta_1 = 0.547$ ,  $t = 10.811$ ,  $p = 0.000$ ,  $\beta_2 = 0.133$ ,  $t = 2.612$ ,  $p = 0.010$ ,  $\beta_3 = 0.065$ ,  $t = 5.375$ ,  $p = 0.000$ ).

The results therefore, provide evidence in support of the hypothesis that firm characteristics moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies. The results reveal that  $R^2$  improved from 72.3% in step two to 75.4% in step three. The null hypothesis that firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance was rejected. The results imply that firm characteristics moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies. This means that positive change

in firm characteristics strengthens the relationship between sales territory design and salesforce performance in detergent manufacturing companies.

### 5.6. Relationship between Training and Salesforce Performance

The objective was to determine the influence of training on salesforce performance. A simple regression analysis was utilized where training was regressed against salesforce performance. The hypothesis formulated was that;

**H<sub>04</sub>: There is no significant relationship between training and salesforce performance.**

A simple linear regression analysis was used to test this hypothesis and the results are presented in Table 5.10.

**Table 5.10: Model Fitness for Salesforce Training**

<b>Model Summary</b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.712a	0.507	0.505	0.78833	

The model fitness results indicate that the coefficient of determination was 0.507, which shows that 50.7% percent of the variation in salesforce performance is accounted for by the changes in salesforce training. Thus, salesforce training is a major determinant of salesforce performance. The standard error of the estimate of 0.78833 indicated low variations.

**Table 5.11: ANOVA for Salesforce Training**

<b>ANOVA</b>					
	Sum of Squares	df	Mean Square	F	Sig.
Regression	146.969	1	146.969	236.488	.000b
Residual	142.937	230	0.621		
Total	289.907	231			

The model of salesforce training on performance was significant in overall (F = 236.488, P-Value <0.05). Thus, the model was robust and fit for prediction. Table 4.53 shows the regression coefficient for salesforce training.

**Table 5.12: Regression Coefficients for Salesforce Training**

<b>Coefficients</b>					
	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>t</b>	<b>Sig.</b>
( Constant)	0.998	0.139		7.205	0.000
Salesforce Training	0.679	0.044	0.712	15.378	0.000

**Source: Primary Data.**

The fitted model was;

$$SFP = 0.998 + 0.679SFT$$

Where;

SFP= Salesforce performance, SFT= Salesforce Training

The regression of coefficient results indicate that salesforce training was significant ( $\beta = 0.679$ ,  $t = 15.378$ ,  $p$ -value <0.05). Specifically, for every one unit increase in salesforce training, salesforce performance increases by 0.679 units holding other factors constant. The null hypothesis that salesforce training has no significant effect on salesforce performance was rejected. Therefore, salesforce training has a significant effect on salesforce performance.

### **5.7. Sales Territory Design, Salesforce Training and Salesforce Performance**

The fifth objective sought to determine how training influences the relationship between sales territory design and salesforce performance. This was through the hypothesis.

**H<sub>05</sub>: Salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance.**

To test this hypothesis, a stepwise regression model was used. In step one, sales territory design was regressed on salesforce performance. In step two, sales territory design and salesforce training were regressed on salesforce performance. In step three, the interaction term between sales territory design and salesforce training was introduced. Moderation is confirmed when the effect of the interaction term is statistically significant. The results are presented in Table 5.13.

**Table 5.13: Model Fitness for Sales Territory Design and Salesforce Training**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.835a	0.698	0.696	0.61729
2	.847a	0.717	0.714	0.59881
3	.871a	0.759	0.756	0.55321

The regression results in Table 5.13 shows that in the first step sales territory design was regressed against salesforce performance. The results demonstrate that the influence of sales territory design on salesforce performance is significant ( $R^2=0.698$ ) implying that 69.8% of the change in salesforce performance was linked to changes in sales territory design.

**Table 5.14: ANOVA for Sales Territory Design and Salesforce Training**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	202.27	1	202.265	530.807	.000b
	Residual	87.64	230	0.381		
	Total	289.91	231			
2	Regression	207.795	2	103.897	289.756	.000b
	Residual	82.112	229	0.359		
	Total	289.907	231			
3	Regression	220.129	3	73.376	239.757	.000b
	Residual	69.778	228	0.306		
	Total	289.907	231			

The ANOVA results demonstrate that the influence of sales territory design on salesforce performance is significant (F=530.807, P=0.000) indicating it was robust and fit for prediction. Table 5.15 shows the coefficient for sales territory design and salesforce training.

**Table 5.15: Regression Coefficients for Sales Territory Design and Salesforce Training**

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	0.619	0.11		5.63	0.000
	Sales Territory Design	0.808	0.035	0.835	23.039	0.000
2	(Constant)	0.478	0.113		4.248	0.000
	Sales Territory Design	0.660	0.051	0.683	13.024	0.000
	Salesforce Training	0.196	0.050	0.206	3.927	0.000
3	(Constant)	0.126	0.141		0.895	0.371
	Sales Territory Design	0.499	0.053	0.517	9.386	0.000
	Salesforce Training	0.098	0.049	0.103	2.013	0.045
	Sales Territory Design*Salesforce Training	0.084	0.013	0.326	6.348	0.000

**Source: Primary Data.**

The fitted model was:

$$SFP = 0.619 + 0.808STD$$

$$SFP = 0.478 + 0.660STD + 0.196 SFT$$

$$SFP = 0.126 + 0.499STD + 0.098SFT + 0.084STD * SFT$$

Where:

SFP= Salesforce performance, STD= Sales Territory Design, SFT = Salesforce Training

STD\* SFT = Interaction Term of Sales Territory Design and Salesforce Training

The regression results demonstrate that the influence of sales territory design on salesforce performance is significant ( $\beta = 0.808$ ,  $t = 23.039$ ,  $p < 0.05$ ). The results in the first step were all significant. Firm characteristics was added as a moderator in step two and the model is statistically significant ( $\beta_1 = 0.660$ ,  $t = 13.024$ ,  $p = 0.000$ ,  $\beta_2 = 0.196$ ,  $t = 3.927$ ,  $p = 0.000$ ). In step three, the interaction term was introduced in the regression model. All the variables, sales territory design, firm characteristics and the interaction term (sales territory design\* salesforce training) were entered in the regression model. The results reveal that the interaction is statistically significant ( $\beta_1 = 0.499$ ,  $t = 9.386$ ,  $p = 0.000$ ,  $\beta_2 = 0.098$ ,  $t = 2.013$ ,  $p = 0.045$ ,  $\beta_3 = 0.084$ ,  $t = 6.348$ ,  $p = 0.000$ ). The results therefore, provide evidence in support of the hypothesis that salesforce training moderates the relationship between sales territory design and salesforce performance. Therefore, the null hypothesis that sales training does not significantly moderate the relationship between sales territory design and salesforce performance was rejected.



The results imply that salesforce training moderates the relationship between sales territory design and salesforce performance in detergent manufacturing companies. This means that positive change in salesforce training strengthens the relationship between sales territory design and salesforce performance in detergent manufacturing companies.

### **5.8 Joint Effect of Sales Territory Design, Firm Characteristics and Salesforce Training on Salesforce Performance**

The sixth objective of the study was to determine the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance in the detergent manufacturing firms in Kenya. The hypothesis was stated that;

**H<sub>06</sub>: The joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant.**

The hypothesis was formulated and tested using multiple linear regression model and the results are presented in Table 5.16.

**Table 5.16: Model Fitness for Joint Effect**

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.853a	0.728	0.724	0.58815

The results indicate that the coefficient of determination was 0.728, which imply that 72.8% percent of the variation in salesforce performance is accounted for by the changes in the joint effect of sales territory design, firm characteristics and salesforce training. The standard error of the estimate of 0.58815 indicated low variations.

**Table 5.17: ANOVA for Joint Effect**

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	211.036	3	70.345	203.355	.000b
	Residual	78.871	228	0.346		
	Total	289.907	231			

The model of joint effect of sales territory design, firm characteristics and salesforce training on performance was significant in overall (F = 203.355, P-Value = 0.000<0.05). This implied that the model was robust and fit for prediction. Table 5.18 shows the regression coefficient for the joint effect.

**Table 5.18: Regression Coefficients for Joint Effect**

Coefficients					
	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	0.420	0.112		3.748	0.000
Sales Territory Design	0.589	0.055	0.609	10.725	0.000
Firm Characteristics	0.174	0.057	0.181	3.061	0.002
Salesforce Training	0.116	0.056	0.122	2.092	0.038

**Source: Primary Data.**

The fitted model was;

$$SFP = 0.420 + 0.589STD + 0.174FC + 0.116 SFT$$

Where:

SFP= Salesforce performance

STD= Sales territory design

FC= Firm characteristics

SFT = Salesforce training

The regression coefficient results indicate that joint effect of sales territory design, firm characteristics and salesforce training was significant. The values for sales territory design was  $\beta = 0.589$ ,  $t = 10.725$ ,  $p\text{-value} < 0.05$ . Firm characteristics had  $\beta = 0.174$ ,  $t = 3.061$ ,  $p\text{-value} = 0.002 < 0.05$ , while salesforce training had  $\beta = 0.116$ ,  $t = 2.092$ ,  $p\text{-value} = 0.038 < 0.05$ . The summary of results indicate that jointly the variables explain 72.8% of the variations in salesforce performance ( $R^2 = .728$ ). The joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance ( $R^2 = 72.8$ ) is greater than the individual effect of sales territory design (69.8%), firm characteristics (53.4%) and salesforce training (50.7%) on salesforce performance. The joint effect was higher and significant compared to the individual effect of individual variables and the null hypothesis was rejected that the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant.

### **5.9 Summary of Study Objectives, Hypotheses, Results and Interpretation**

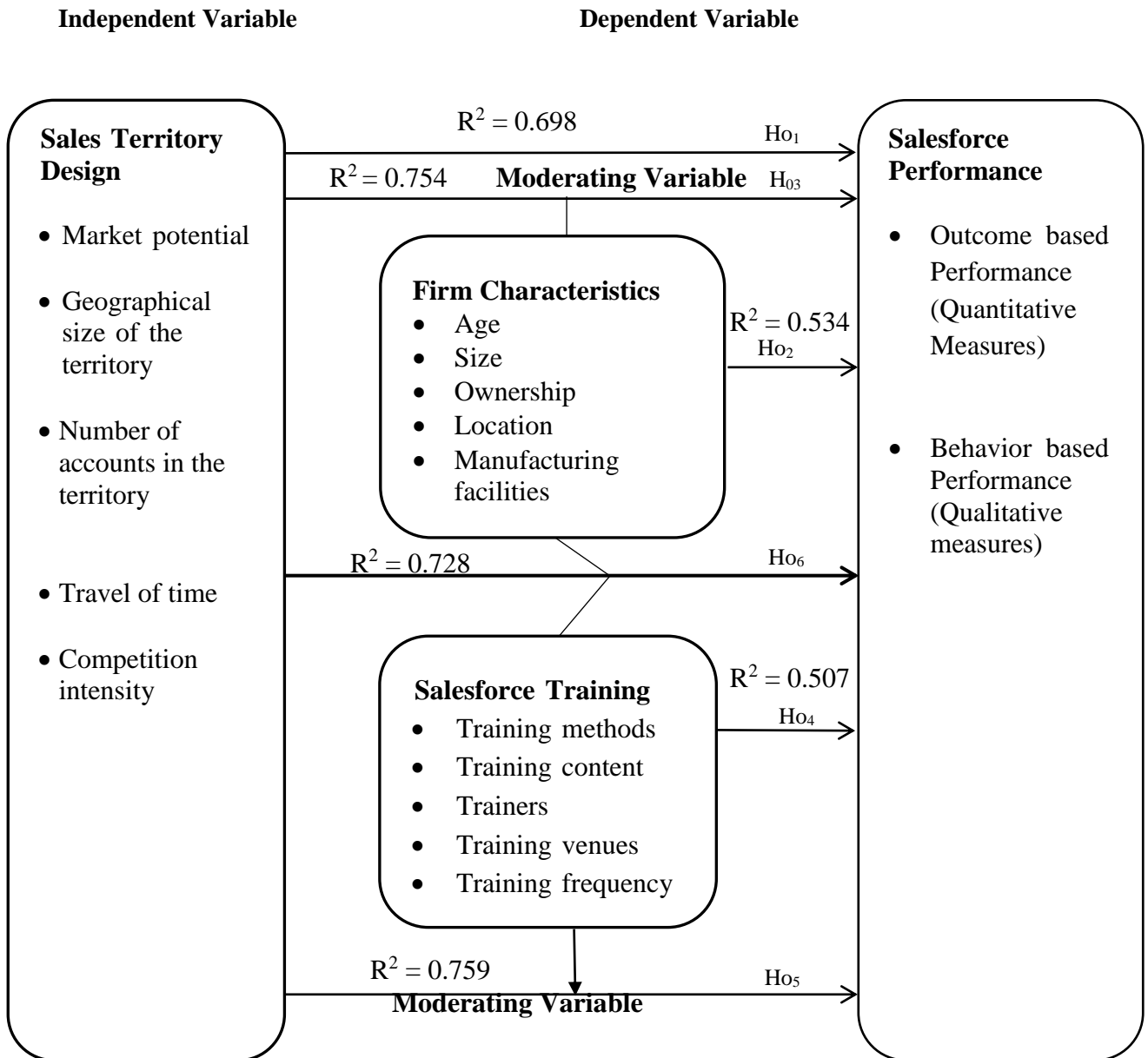
The aim of the study was to determine the moderating effects of firm characteristics and salesforce training (each run separately), on the relationship between sales territory design and salesforce performance. The study was guided by six (6) hypotheses. A summary of the research objectives, hypotheses, results, interpretation and conclusion is presented in Table 5.19

**Table 5.19: Research Objectives, Hypotheses, Results and Interpretation Summary**

Objectives	Hypotheses	Findings			Conclusion	Interpretation
		R <sup>2</sup>	P-value	F-statistic		
To establish the effect of sales territory design on salesforce performance	H <sub>01</sub> : There is no significant relationship between sales territory design and salesforce Performance	.698	0.000	530.807	H <sub>01</sub> is rejected	Sales territory design influences salesforce performance
To find out the effect of firm characteristics on salesforce performance	H <sub>02</sub> : There is no significant relationship between firm characteristics and salesforce performance	.534	0.000	263.663	H <sub>02</sub> is rejected	Firm characteristics influences salesforce performance
To determine the effect of firm characteristics on the relationship between sales territory design and salesforce performance	H <sub>03</sub> : Firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance	.754	0.000	232.821	H <sub>03</sub> is rejected	Firm characteristics moderates the relationship between sales territory design and salesforce performance
To establish the effect of salesforce training on the salesforce performance	H <sub>04</sub> : There is no significant relationship between salesforce training and salesforce performance	.507	0.000	236.488	H <sub>04</sub> is rejected	Salesforce training influences salesforce performance
To identify the effect of salesforce training on the relationship between sales territory design and salesforce performance	H <sub>05</sub> : Salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance	.759	0.000	239.757	H <sub>05</sub> is rejected	Salesforce training moderates the relationship between sales territory design and salesforce performance
To determine the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance	H <sub>06</sub> : Sales territory design, firm characteristics and salesforce training jointly do not have a significant influence on salesforce performance.	.728	0.000	203.355	H <sub>06</sub> is rejected	Sales territory design, firm characteristics and salesforce training jointly influence salesforce performance

### 5.10 Discussion of the Study Findings

This section presents the discussions on results obtained from the study variables based on the objectives of the study and the hypotheses formulated in the conceptual framework



**Figure. 5.1: Empirical Model**

Source: Researcher (2023)

From the improved conceptual framework in figure 5.1, it shows that salesforce training had the highest significant moderating effect on the relationship between sales territory design and salesforce performance. Further figure 5.1 shows that firm characteristics had a higher significant effect on the relationship between sales territory design and salesforce performance. Figure 5.1 shows that the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance was high and significant. The variable with the lowest impact was salesforce training in the direct relationship between salesforce training and salesforce performance, suggesting that salesforce training moderately influence salesforce performance.

#### **5.10.1 Relationship between Sales Territory Design and Salesforce Performance**

The study sought to establish the effect of sales territory design on salesforce performance. The corresponding hypothesis was that there is no significant relationship between sales territory design and salesforce performance. The null hypothesis was rejected. It was concluded that sales territory design has a statistically significant influence on salesforce performance. The results support the resource advantage theory, which focuses on how firms can use unique resources at their disposal to deliver superior performance than their competitors. A firm with unique and superior resources can design bigger and more effective sales territories compared to its competitors. The findings are in line with Fatima (2019) who argues that satisfaction of salesperson with sales territory design positively influences salesforce performance which in turn has a positive impact on sales organization effectiveness.

Further, the findings are in line with Grant et al. (2020), who found that satisfaction with sales territory design had favorable outcome on salesforce motivation, job satisfaction and sales performance. In the same vein Zoltner et al. (2019) argue that poorly designed sales territories lead to poor sales as the salesforce spend too much time traveling from one account to another while salesforce in territories with too few accounts will spend time on nonproductive activities and in the long run may feel demotivated due to low sales and commissions and might end up exiting the business leading to lost sales.

### **5.10.2 Relationship between Firm Characteristics and Salesforce Performance**

The study sought to establish the effect of firm characteristics on salesforce performance. The corresponding hypothesis was that there is no significant relationship between firm characteristics and salesforce performance. The study results showed that firm characteristics have a statistically significant influence on salesforce performance. The null hypothesis was rejected.

The study findings support extant literature. Hoang, Igel and Laosirihongthong (2019) posit that a firm's performance is influenced by the firm's characteristics such as its age, size, the type of industry, adoption and the degree of the firm's innovativeness. According to Zahra, Ireland and Hitt (2000), the number of years an organization has been in existence may determine its range of business activities, profitability of its operations and the overall performance. On his part, Schoenherr (2018) argues that older firms are said to enjoy better performance as they are more experienced, enjoy the benefit of learning, and do not suffer from the liabilities of being new. Barker (2018)

found that more effective sales organizations have salespeople who are more motivated, employ managers who direct more and are more satisfied with the design of their territories. Pahlevi, Setyanto and Laksana (2020) found out that salesforce competence, sales management control, and sales territory design have positive effect on salesforce performance. Gathogo and Ragui (2020) established that a strategic location is important in a firm's reputation. Firms are therefore ready to spend a lot of money on a location that gives them a good corporate image.

### **5.10.3 Sales Territory Design, Firm Characteristics and Salesforce Performance**

The study sought to assess the influence of firm characteristics on the relationship between sales territory design and salesforce performance. The corresponding hypothesis was that firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance. The results showed that firm characteristics have a statistically significant moderating influence on the relationship between sales territory design and salesforce performance. The null hypothesis was rejected.

The findings support the resource-advantage theory (R-A) theory, which focuses on how a firm can take advantage of the resources it has to generate competitive advantage leading to superior performance. Gitau, Oboko, Litondo and Gakuu (2019) found that salesforce automation as a result of well-endowed firm characteristics has a positive impact on salesforce performance. In the same vein, Zahra, Ireland and Hitt (2000) postulate that the duration a firm has existed influences its span of business ventures, its performance and profitability of its activities.



Kotler and Armstrong (2020), argue that venue is an essential way of communicating performance's identity and that firms expend huge amounts of capital to insure that their venue is ideal for their clients while Misra et al. (2015) posit that bigger firms have better reputation, stronger brands, bigger marketing budgets and are more efficient and as a result their salesforce exhibit better performance. These key firm characteristics therefore allow firms to have superior sales territory design to generate superior sales performance relative to smaller organizations.

#### **5.10.4 Relationship between Training and Salesforce Performance**

The study sought to determine the effect of salesforce training on salesforce performance. The hypothesis for this was that there is no significant relationship between salesforce training and salesforce performance. It was established that salesforce training has a statistically significant influence on salesforce performance. The null hypothesis was rejected. The findings support Human Capital Theory which predicts that training boosts the productivity and income of individuals and their value to an organization.

The findings are in line with a study by Attia et al. (2020) on the impact of training on salesforce performance in Egyptian multinational corporations which established that salesforce training had a significant positive relationship on salesforce performance. The findings concur with another study by Samuel (2018) on the impact of staff training and firm performance for drilling companies in Tanzania which found that training has positive influence on performance.

The findings also in line with a study by Rahman, Zailani, Abdullah-Al-Mamun, Ameziane, and Hazeez (2019) on the impact of salesperson training on organizational outcomes. The study established that training has significant impact on salesperson's experience ( salesperson's knowledge and salesperson's skills), while salesperson's experience has positive impact on the three categories of organizational outcomes namely productivity, effectiveness and performance. The findings however contradict a study by Ukandu and Ukpere (2020) in the fast fast food industry in South Africa which found out poor and ineffective training leads to poor staff performance. The findings also contradict those of Sunardi et al. (2020) who posit that salesforce training programs do not necessarily enhance employees' behavior style. They also contradict those of Groza, et al. (2019) who argue that thinking styles of sales people are not necessarily from training but other factors like experience, talent and aggressiveness that leads to sales performance.

#### **5.10.5 Sales Territory Design, Training and Salesforce Performance**

The study had set out to establish the effect of salesforce training on the relationship between sales territory design and salesforce performance. The corresponding hypothesis was that salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance. It was established that salesforce training has a statistically significant moderating influence on the relationship between sales territory design and salesforce performance. The null hypothesis was rejected.

The results support the Resource Advantage Theory, which focuses on how firms can use unique resources at their disposal to deliver superior performance than their competitors. A firm with unique and superior resources can design bigger and more effective sales territories compared to its competitors. It also supports Human Capital theory which posits that training boosts the productivity and income of individuals and their value to an organization. The findings concur with existing literature. Shannahan et al. (2020) argue that coaching of sales people brings about competitiveness which enables them to handle their customers under their territories efficiently leading to effectiveness and enhanced performance. Fatima (2019) found out that satisfaction of a salesperson with the sales territory design positively influences salesforce performance and training enhances this relationship.

Moreover, Haji (2020) established that the most compelling attributes that contribute to salespeople's poor performance such as poor territory coverage could be tackled by training. However the findings contradict findings by Sunardi, Widyarini and Tjakraatmadja (2020) who found that salesforce training program does not necessarily enhance employees' behavior style while Groza, Locander and Howlett (2019) argues that the mindset of sales people are not necessarily from training but other factors like experience, talent and aggressiveness that leads to sales performance.

### **5.10.6 Joint effect of Sales Territory Design, Firm Characteristics, Salesforce Training on Salesforce Performance**

The study sought to determine the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance. The corresponding hypothesis was that the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant. The results of the current study showed that sales territory design, firm characteristics and salesforce training have a statistically significant joint influence on salesforce performance. The null hypothesis was rejected.

The results of the study are in line with the extant literature. For instance, Johnson and Marshall (2020) argue that the choice of how sales territory design is developed and managed within an company with certain firm characteristics can be well informed by factors like how well salespeople are equipped with necessary knowledge and skills through training which eventually leads to improved salesforce performance. It therefore follows that if a firm chooses best management of sales territory design and invests in the training of the salesforce, then improved salesforce performance will follow.

Further, Miao and Evans (2018), contend that the interactive effects of sales control systems on salesforce performance is dependent on sales territory design effectiveness and how sales people are trained. In addition, Plouffe et al. (2019) identified key drivers of salesforce performance as salespeople training programs, firm characteristics, and how sales territories are designed by the sales managers. Furthermore, Shannahan et al. (2020) argue that coaching of sales people brings about competitiveness which

enables them to handle customers under their territories efficiently leading to effectiveness and improved performance.

### **5.11 Chapter Summary**

The chapter has presented the study results of inferential statistics. Hypotheses were tested using inferential statistics including simple, stepwise and multiple regression analyses which tested the hypotheses at 95% level of confidence. The chapter further presented details of how direct and indirect relationships were analyzed. The direct relationships were analyzed using correlation analyses and simple linear regression while the indirect (moderation) relationships were tested using hierarchical regression analyses. The joint effect was tested using multiple linear regression analysis. The six study null hypotheses were rejected at 95% significance level. The chapter in addition discussed the results generated and gave conclusions based on the hypotheses analyzed.

## **CHAPTER SIX**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **6.1 Introduction**

This chapter reports on summary of the study and its findings, conclusion, recommendations, limitations, and suggestions for further research. The field data obtained to address each of the objectives was presented in the previous chapter through descriptive and inferential statistics and also the effect of the independent variables on the dependent variable. The results are presented relative to the findings of the previous chapter evaluating the influence of sales territory design, firm characteristics and training on salesforce performance in the detergent manufacturing companies in Kenya.

#### **6.2 Summary of Findings**

The general objective of this study was to determine the relationship between sales territory design, firm characteristics, training and salesforce performance in the detergent manufacturing companies in Kenya. The design that guided this study was a descriptive cross sectional design, the objective of the study was to establish relationships among the study variables. The unit of analysis was the sales people in the detergent manufacturing companies in Kenya who are members of Kenya Association of Manufacturers (KAM).

##### **6.2.1 Sales Territory Design and Salesforce Performance**

The first objective of the study was to determine the relationship between sales territory design and salesforce performance in the detergent manufacturing companies in Kenya.

The explanatory variables were market potential, geographical size of territory, number of accounts in the territory, travel time and competition intensity. Using a simple linear regression analysis model, the study established a positive and significant relationship between sales territory design and salesforce performance.

The findings of this study were significant and important to policy makers in the industry who could now use the outcomes to develop a policy framework that is likely to strengthen salesforce performance by introducing measures that improve sales territory design. In addition the outcome of this study has given insights to the managers and other practitioners in the industry to develop work systems and practices that will enhance salesforce performance within a given sales territory design. Further, the findings that sales territory design influences salesforce performance has supported previous findings and the Resource-Advantage theory. The finding is important and has implication to researchers and through this, knowledge on sales territory design and salesforce performance is progressed.

### **6.2.2 Firm Characteristics and Salesforce Performance**

The second objective of the study was to establish the effect of firm characteristics on salesforce performance. Firm characteristics were measured by age, size, firm ownership, location and manufacturing facilities. Using a simple linear regression analysis model, the study established a positive and significant relationship between firm characteristics and salesforce performance. The study will guide policy makers in the sector to come up with policies that will enhance the firm characteristics that have a positive influence on the performance of the salesforce.

The result findings will help managers in the industry to identify firm characteristics that can improve the performance of the salesforce and guide them on how to use the same resources to maximize performance of their sales people. Further, the findings that firm characteristics influences salesforce performance support the resource based view. The finding is important and has implication to researchers and through this, knowledge on firm characteristics and salesforce performance is progressed.

### **6.2.3 Sales Territory Design, Firm Characteristics and Salesforce Performance**

The third objective of the study was to investigate the moderating effect of firm characteristics on the relationship between sales territory design and salesforce performance. The age of the firm, size, ownership, location and manufacturing facilities were used as the measures of firm characteristics. To establish the moderating effect, stepwise regression method was employed and results revealed that firm characteristics moderate the relationship between sales territory design and salesforce performance and that the influence is statistically significant.

The outcome of the study will provide policy makers in the industry with information that they can use to formulate policies that will help in designing of effective sales territories and in the utilization of company features to improve the performance of the salesforce. The study will also guide managers in the industry on how to improve the designs of the sales territories and how to take advantage of identified firm characteristics to improve the performance of their salesforce.

The findings that firm characteristics moderate the relationship between sales territory design and salesforce performance support previous studies on these variables. The



study findings will add more information to the body of knowledge on the interaction between sales territory design, firm characteristics and salesforce performance and through this knowledge is enhanced.

#### **6.2.4 Salesforce Training and Salesforce Performance**

The fourth objective of the study was to establish the direct effect of salesforce training on salesforce performance. Salesforce training was measured by five constructs namely; training methods, training content, trainers, training venues and training frequency. The relationship was determined using a simple liner regression analysis. The study established that salesforce training had a direct and significant effect on the salesforce performance.

The study findings will provide useful information to the policy makers when designing training policies for the industry. The outcome of the study will be useful to the managers in the sector as they will be able to identify the key drivers of training effectiveness and use the same in their training programs. In addition, results of the study will provide additional information that will help to enhance theories on training and especially the human capital theory and this will lead to the progression of knowledge.

#### **6.2.5 Sales Territory Design, Salesforce Training and Salesforce Performance**

The fifth objective of the study was to establish the moderating effect of salesforce training on the relationship between sales territory design and salesforce performance. Five constructs namely; training methods, training content, trainers, training venues and training frequency were used to measure salesforce training. The moderation effect was tested using the stepwise regression analysis. It was established that salesforce

training had a significant moderating effect on the relationship between sales territory design and salesforce performance.

The findings that salesforce training has a moderating effect on the relationship between sales territory design and salesforce performance has ramification to policy makers as it will guide them in the formulation of policies on the design of the sales territories and on training with a view to enhancing the performance of the salesforce. In addition, the study findings will help the sales practitioners in the design of the sales territories and in coming up with suitable training programs for the salesforce. The study findings will also be useful to researchers as it will provide information on the interaction between sales territory design, and salesforce training and how this interaction influence salesforce performance. This will increase the body of knowledge on sales territory design, salesforce training and salesforce performance thereby enhancing knowledge.

#### **6.2.6 Sales Territory Design, Firm Characteristics, Salesforce Training and Salesforce Performance**

The sixth objective of the study was to analyze the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance in detergent manufacturing companies in Kenya by jointly investigating the indicators of each variable. The joint effect was tested using multiple linear regression analysis, the study established a statistically significant independent effect of sales territory design, firm characteristics and salesforce training on salesforce performance and further it was established that the joint effect had a higher statistically significant effect on salesforce

performance as compared to individual effects. The finding that sales territory design, firm characteristics and salesforce training jointly had a significant influence on salesforce performance is important to several stakeholders.

The findings will be useful to the policy makers when developing policies that affect the design of sales territories, policies which affect firm characteristics and when coming up with policies on training. The findings will also be useful to the managers in the industry as it will guide them when designing sales territories, when evaluating different firm characteristics so as to decide which ones to incorporate in their company strategies and when designing training programs for their salesforce. Further the study finding on the joint effect of sales territory design, firm characteristics and training on the performance of salesforce, will provide more information on the body of knowledge on how the variables are related and this will extend the frontiers of knowledge.

### **6.3 Conclusion**

The study determined the effect of sales territory design on salesforce performance. The study discovered a strong relationship between sales territory design and salesforce performance. This therefore indicates that sales territory design is critical in determining salesforce performance in detergent manufacturing companies in Kenya and therefore the hypothesis that there is no significant influence of sales territory design on salesforce performance is rejected.

The second objective of the study was to determine the effect of firm characteristics on salesforce performance through the hypothesis that there is no significant relationship between firm characteristics and salesforce performance in detergent

manufacturing companies in Kenya. A simple regression analysis was utilized where firm characteristics was regressed against salesforce Performance. The study found a strong positive relationship between firm characteristics and Salesforce performance, implying that firm characteristics is key in determining salesforce performance in detergent manufacturing companies in Kenya. As a result, the hypothesis that there is no significant relationship between firm characteristics and salesforce performance was rejected.

The third objective sought to assess the influence of firm characteristics on the relationship between sales territory design and salesforce performance. The assessment was done through the hypothesis that firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies in Kenya. Stepwise regression analysis was used to test the hypothesis. The study established that firm characteristics moderate the relationship between sales territory design and salesforce performance. The hypotheses that firm characteristics do not significantly moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies in Kenya was therefore rejected.

The fourth objective was to establish the effect of salesforce training on salesforce performance through the hypothesis that there is no statistically significant relationship between salesforce training and salesforce performance in detergent manufacturing companies in Kenya. A simple regression analysis was utilized where training was regressed against salesforce performance. The study observed a strong positive

relationship between training and Salesforce performance. The results indicate that training is important in influencing salesforce outcomes in detergent manufacturing companies in Kenya and therefore the hypothesis that there is no significant relationship between training and salesforce performance in detergent manufacturing companies in Kenya was rejected.

The fifth objective sought to determine the effect of training on the relationship between sales territory design and salesforce performance through the hypothesis that salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies in Kenya. The study established that salesforce training moderates the relationship between sales territory design and salesforce performance. The moderation therefore is indicated in the model. The hypothesis that salesforce training does not significantly moderate the relationship between sales territory design and salesforce performance in detergent manufacturing companies in Kenya was therefore rejected.

The sixth objective was to establish the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance in detergent manufacturing companies in Kenya. This was through the hypothesis that the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance is not statistically significant in influencing the salesforce performance in detergent manufacturing companies in Kenya.

The results show that the joint effect of sales territory design, firm characteristics and salesforce training on salesforce performance was statistically significant. The results

show that the joint effect of sales territory design, firm characteristics and the salesforce design on salesforce performance in detergent manufacturing companies in Kenya is statistically significant and thus the hypothesis was rejected.

#### **6.4 Study Recommendations**

The significance of detergent manufacturing companies for economic development is well recognized. Since the detergent manufacturing companies rely on several suppliers for different raw materials and on distributors, wholesalers and retailers to sell the detergents, the sector provides employment and livelihood to skilled, semi-skilled and unskilled workers thereby playing a key role in creating employment, poverty alleviation and in economic development.

From the study findings, a number of recommendations are proposed. The findings of this study show that sales territory design did not explain salesforce performance fully. It is therefore important for another similar study to be carried out to conclusively investigate what other factors will influence this relationship further. The outcome of the study indicated that firm characteristics influence salesforce performance moderately, it is hence important for another study to be conducted to investigate what other factors would influence salesforce performance.

The joint effect of sales territory design, firm characteristics and salesforce training was significant but not conclusive. It is therefore recommended that another similar study be carried out to investigate what other factors would enhance the influence of the joint effect on salesforce performance.

## **6.5 Implications of the Study**

The study investigated the relationship between sales territory design and salesforce performance and the effect of firm characteristics and salesforce training on this relationship. This section underscores the benefits of the study findings to knowledge, policy makers and to sales practitioners in the detergent manufacturing companies in Kenya. Theoretical, Policy and managerial implications from the study findings are presented.

### **6.5.1 Theoretical Implications**

The study adds more information on the existing body of knowledge on the theoretical debates on sales territory design and salesforce performance. The results of the study indicated that sales territory design is an integral ingredient that influences salesforce performance. The findings are in line with the Resource-Advantage theory that postulates that organizations should segment their customers into specific groups with similar needs and target them with tailor made marketing programs so as to increase sales and gain competitive position.

Additionally, the study findings indicate that firm characteristics significantly moderate the relationship between sales territory design and salesforce performance. Therefore, firm characteristics are important in determining salesforce output. This observation is in line with the Resource-Based View of the firm which contends that the resources and capabilities that a firm can be used to gain competitive advantage over its competitors (Penrose, 1959; Wernerfelt, 1984; Barney, 1991; Andersen, 2020).

The results also indicated that salesforce training moderates the relationship between sales territory design and salesforce performance which is in line with human capital theory (Garibaldi, 2016) which postulate that the productivity and earnings of an individual and their value to a firm rises with increase in training. The study findings add to the body of knowledge on sales territory design and salesforce performance and how this relationship is affected by firm characteristics and salesforce training and this is of use to academicians and researchers as it helps to expand knowledge.

The finding that the joint effect of sales territory design, firm characteristics and sales force training on sales force performance was significant and was new knowledge in the study. This has significant and positive implications to marketing strategy. Industry players and academic researchers now have a new insight on how to improve sales force performance by adopting sales territory design, firm characteristic and salesforce training. This new knowledge progresses knowledge in the field of marketing as a profession and the area of study and research.

### **6.5.2 Policy Implications**

The study makes important contribution to policy makers. The study will guide the Government policy makers to formulate policies that will support and grow the detergent manufacturing industry due to the critical role it plays in the health sector generally and especially in the fight against Covid-19 disease. The study will provide useful information to guide policy makers and human resource practitioners when formulating human resource, employment and training policies in the detergent industry specifically and for the manufacturing industry in general. Further, knowledge gained from the study results will also help policy makers and stakeholders to develop policies that will



improve the efficiency, effectiveness, competitiveness, and performance of the detergent manufacturing industry in the country and help to improve the performance of the salesforce in the industry.

### **6.5.3 Implications to Practitioners**

The outcome of the study will guide the sales practitioners when designing their sales territories. Since the results have shown that sales territory design is a key contributor to the salesforce performance, sales managers must take cognizance of this fact and pay more emphasis on sales territory design to ensure they are efficient and effective and lead to optimum performance by their sales teams. Sales managers and company owners will benefit from the findings of the study on the factors they should focus on in their endeavor to improve the performance of their salesforce.

The results of the study have shown that the relationship between sales territory design and salesforce performance is moderated by firm characteristics as well as salesforce training. Both firm characteristics and salesforce training have been shown to further improve salesforce performance. It is therefore imperative for the sales managers and sales practitioners to appreciate that for superior performance of their salesforce, they must not only design effective and efficient sales territories but they must also take advantage of firm characteristics to drive superior performance from their salesforce and also use salesforce training in furthering this pursuit.

### **6.6 Limitations of the Study**

This study had some limitations and precautions were taken to deal with them and ensure that they did not affect the findings of the study. First, there was a dearth of information

on studies related to sales territory design and salesforce performances. Further the study involved collecting information on the performance of the salespeople. This is classified information that is not open to the public hence was a challenge to access especially data relating to employee performance and sanctions. However, with the introduction letter from the university and the assurance that information will be treated with utmost confidentiality and for academic purpose only, the managers gave access.

The study used a cross sectional research design where respondents were to fill in research questionnaires for the study at one point in time. This research design has a challenge of examining behavior at one point in time because sales people behaviors requires a longer period of analysis for generalization. Further, collecting data was quite a challenge considering that the researcher targeted to collect data from 326 respondents.

Questionnaires were developed and physically delivered to the respondents which involved covering huge geographical territories. Data collection took a much longer time due to the Government limitations on movement due to Covid-19 pandemic which limited access to the companies and salesforce. However, even though this study faced such listed limitations and as earlier stated, every effort was made to ensure that these limitations did not affect the findings of the study.

### **6.7 Suggestions for Future Research**

The study found significant relationship between sales territory design and salesforce performance. Though the study found a significant and strong relationship, it did not fully explain all the determinants of salesforce performance. It is therefore suggested that

further studies be conducted to determine other factors that would effectively influence salesforce performance.

The study established that salesforce training moderately influenced salesforce performance. It is recommended that a similar study be done to find out what other factors would influence salesforce performance that this study did not consider. The study further established that the joint effect of sales territory design, firm characteristics and salesforce training only explained a sizable influence on salesforce performance. It is hence recommended that a similar study be carried out to investigate what other factors would effectively influence salesforce performance that this study did not consider.

This study used cross sectional design that looked into sales territory design and salesforce performance at one point in time. It is therefore suggested that a similar study be done using a longitudinal research design for the comparison and generalizability of the results.

## **6.8 Chapter Summary**

The chapter has presented a summary of the study findings and the conclusion from the findings of how the variables are related and their significance. The chapter has then presented study recommendations and implications of the study to theory, policy and to practitioners. Further the chapter has documented the limitations of the study and suggestions for future research.

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## APPENDICES

### Appendix I: Researcher Introduction Letter



# UNIVERSITY OF NAIROBI

## COLLEGE OF HUMANITIES & SOCIAL SCIENCES

### SCHOOL OF BUSINESS

Telephone: 0724-200311  
Telegrams: "Varsity" Nairobi  
Telex: 22095 Varsity

P.O. Box 30197  
Nairobi, KENYA

2<sup>nd</sup> September, 2020

#### TO WHOM IT MAY CONCERN

Dear Sir/Madam,

#### **INTRODUCTORY LETTER FOR RESEARCH** **BENSON MUCHOKI MWANGI – REGISTRATION NO. D80/63861/2011**

The above named is a registered PhD candidate at the University of Nairobi, School of Business. He is conducting research on *"Sales Territory Design, Firm Characteristics, Training and Salesforce Performance in the Detergent Manufacturing Companies in Kenya"*.

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

Your co-operation will be highly appreciated.

Thank you.

  
**Prof. Mary Kinoti**

**Associate Dean, Graduate Business Studies**  
**SCHOOL OF BUSINESS**

## Appendix II: Questionnaire

The questionnaire targets to collect data from detergent manufacturing companies in Kenya with the goal of examining “**The influence of sales territory design, firm characteristics and training on salesforce performance in the detergent manufacturing companies in Kenya**”. Data acquired shall be held in confidence and identity of respondents will be kept anonymous. Your cooperation in this data collection undertaking is highly appreciated.

1. Name of Organization.....

### SECTION A: RESPONDENT’S BACKGROUND INFORMATION

2. My gender (tick the appropriate one)

Female ( )                      Male ( )

3. Age in Years

Up to 29 ( ) 30 – 34 ( ) 35 – 39 ( ) 40 – 44 ( ) 45 and above ( )

4. Marital status

Single ( )    Married ( )    Widowed ( )    Divorced ( )

5. Highest level of Education attained

Master’s degree and above ( ) Undergraduate degree ( ) Diploma ( )

Certificate ( )

6. I have been a salesman for this firm for ..... Years

**SECTION B: SALES TERRITORY DESIGN**

7. Please indicate your agreement to the following statements regarding market potential as it applies to your firm. Use the following scale, where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent; 5 = Very large extent

Market potential manifestations	Extent				
	1	2	3	4	5
My customers have high regard of the quality of my firm's products delivered within each market segment					
My firm dominates the potential markets with large volumes of its products compared to the competitors					
My firm's product portfolio commands the highest market share in all the potential markets					
My firm's products have a strong brand image than products from the competitors					
My firm's products are regarded as affordable by the customers compared to products from competing firms					
My firm's products are preferred by customers more than products from competitors					
My firm's products are available in all large distribution channels more than products from the competitors					

8. Please indicate to what extent you agree with the following statements regarding the geographical size of the sales territories in your firm. Please use the following scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent; 5 = Very large extent

Geographical size of the sales territory	Extent				
	1	2	3	4	5
My firm's sales territory is too large compared to the territories of other sales people					
My customers are too dispersed in my sales territory making it difficult to visit all the accounts					
I am not able to visit customers at the extreme opposite sides of my					

sales territory within the stipulated time					
My sales territory should be reduced in size to improve customer coverage					
My sales territory is reasonable in size and this ensures that all customers are serviced effectively					
My sales territory is too small compared to the sales territories of the other sales people leading to over servicing of the customers					
My sales territory should be increased in size to increase on resources utilization					
My firm designs sales territories based on the numbers of potential clients in the target territory					
My firm designs sales territories based on geographical dispersion of the accounts to improve access to customers					

9. Please indicate to what extent you agree with the following statements on the number of accounts in your sales territory. Please use the following scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent; 5 = Very large extent

Number of accounts in the sales territories	Extent				
	1	2	3	4	5
My firm allocates an optimum number of accounts in a sales territory so as to improve on coverage by the salesperson					
My firm allocates number of accounts in the sales territory based on the sales of the potential customers					
My firm allocates the of accounts in the sales territory based on the geographical terrain of the territory					
My firm allocates customer accounts in the sales territory based on sales of the current customers					
My firm allocates the number of accounts in a sales territory based on how customers are accessible by road					
I have too many accounts in my sales territory making it difficult to visit all the customers within the scheduled time					
I have an adequate number of big accounts in my sales territory to generate good sales					

I have a many big accounts in my sales territory making it difficult to adequately serve all customers					
My firm balances the number of accounts in sales territories to ensure uniform salesforce work load					
I visit all the accounts in my sales territory frequently to maximize on sales					
I have too many accounts in my sales territory making difficult to visit some of the accounts.					

10. Please indicate to what extent you agree with the following statements regarding travel time in the sales territories in your firm. Please use the following scale, Where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent; 5 = Very large extent

Travel time	Extent				
	1	2	3	4	5
My travel time from one customer to another in my sales territory is reasonable and it allows servicing of all the customers					
I manage to visit all the customers in my sales territory within the stipulated time					
I book appointments with my customers to avoid time waste on unnecessary travel.					
My firm's sales territories are designed based on geographical distances to manage travel times					
I plan my travel time well so as meet all the customers in the my sale's territory within the stipulated time					
My firm designs territories that ensure sales people spend more time meeting customers than on travelling					
I spend too much travel time from one customer to another making it difficult to meet all the customers in my sales territory					

11. Please indicate to what extent competition intensity has manifested itself in your firm.

Please use the following scale, where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent; 5 = Very large extent.

Competition intensity	Extent				
	1	2	3	4	5
I face too much competition in my sales territory making it difficult to meet my sales target.					
I have gained some customers from the competition this year					
My firm has lost some business to competition this year due to too much competition					
My firm's sales have been on a decline over the last five years due to too much competition					
I encounter new competitors in my sales territory every year making it difficult to meet achieve my sales targets					
I see some competitors exiting from my sales territory every year due to too much competition.					
My sales have be on an increase over the last 5 years					

### SECTION C: FIRM CHARACTERISTICS

12. How long has your firm been in existence:

Up to 10 years ( )    11 to 20 year    ( )    21 to 30 years    ( )  
 31 to 40 years ( )    41 to 50 years    ( )    Over 50 years    ( )

13. Please indicate the total number of permanent employees in your firm

Up to 10 ( )    11 to 50 ( )    51 to 250 ( )    Over 250 ( )

14. Please indicate the ownership structure of your organization

Locally owned ( )    Foreign owned ( )    both locally and foreign owned ( )

15. The following statements relate to manifestation of firm characteristics in detergent manufacturing firms in Kenya. Please indicate the extent the statements apply in your

firm by use of the following scale where: 1 = Very Small Extent; 2 = small extent; 3 = moderate extent; 4 = Large extent and 5 = Very large extent

Location	Extent				
	1	2	3	4	5
My firm is situated in a strategic location for ease of accessibility					
My firm's location makes it easy to be accessed by customers by road					
My firm is served by roads that are in good condition making it easy for transport of finished products					
My firm is easily accessible by road for the ease of suppliers and customers					
My firm is located near its key customers to cut down on the time for transporting finished goods					
My firm is serviced by roads in good condition cutting down on transport costs when receiving raw materials from suppliers					
My firm is situated in a safe neighborhood cutting down on safety and security expenses					

16. The following statements relate to manifestations of firm characteristics in detergent manufacturing firms in Kenya. Please indicate the extent the statements apply in your firm by use of the following scale where: 1 = Very Small Extent; 2 = small extent; 3 = moderate extent; 4 = Large extent and 5 = Very large extent

Manufacturing facilities	Extent				
	1	2	3	4	5
My firm has state of the art manufacturing facilities to support its operations.					
My firm has adequate facilities to support its production needs					
My firm has adequate storage facilities to avoid product stock outs					
My firm outsources production of some of its products due to inadequate production capacity					
My firm has adequate physical facilities to support its operations.					
My firm possess adequate financial resources to support its manufacturing operations					



**SECTION D: SALESFORCE TRAINING**

17. The following statements describe salesforce training methods used in detergent manufacturing companies in Kenya. Please indicate the extent to which they apply in your firm. Rate the statements using the scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent.

Training Methods	Extent				
	1	2	3	4	5
On the job training					
Classroom lectures					
Online training					
Role playing					
Job rotation					

18. The following statements describe salesforce training contents in detergent manufacturing companies in Kenya. Please indicate the extent to which they apply in your firm. Rate the statements using the scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent".

Salesforce training content	Extent				
	1	2	3	4	5
My firm organizes training about the company so that the salesforce understands about the company history					
My firm offers training on company products to improve on salesforce Knowledge					
My firm organizes training on selling skills to improve the competitiveness of the salesforce					
My firm offers training about competition to improve on its competitive position					
My firm offers training on time management to improve efficiency					
My firm offers training on cost management to improve company					

profitability					
My firm organizes training on customer relationship management to improve on customer retention					
My firm offers training on report writing to improve communication skills					
My firm organizes training on finance management to improve on profitability					
My firm organizes training on safety and security to avoid accidents and incidents					
My firm offers team building training to improve on teamwork					
My firm organizes training on crisis management to minimize disruption of its operations					

19. The following statements describe trainers used to train the salesforce in detergent manufacturing companies in Kenya. Please indicate the extent to which they apply in your firm. Rate the statements using the scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent.

Salesforce trainers	Extent				
	1	2	3	4	5
My firm uses trainers from within the company to cut down on costs					
My firm uses hired trainers from within the country to tap in on different expertise					
My firm uses trainers from sister companies in other countries for training to share knowledge from different countries					
My firm uses hired specialists for the different trappings it offers					
My firm hires trainers from institutions of higher learning from within the country for specialized training					
My firm hires trainers from institutions of higher learning from outside the country for specialized training					
My firm uses more experienced salespeople to train other salespeople					
My firm uses managers to train the salesforce					

20. The following statements describe venues used to train the salesforce in the detergent manufacturing companies in Kenya. Please indicate the extent to which they apply in your firm. Rate the statements using the scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent".

Salesforce training venues	Extent				
	1	2	3	4	5
My firm organizes for training within the company premises to save on costs					
My firm organizes for training outside the company premises but within the country to avoid training disruptions					
My firm organizes for training in other sister companies premises in other countries to encourage sharing of different experiences					
My firm organizes for training in other countries away from company premises to avoid training disruptions					
My firm organizes for training in institutions of higher learning within the country to tap on experiences of local experts					
My firm organizes for training in institutions of higher learning outside the country for specialized training					
My firm organizes for training at the individual' s work station to cut on costs					

21. The following statements describe salesforce training frequency in detergent manufacturing companies in Kenya. Please indicate the extent to which they apply in your firm. Rate the statements using the scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent.

Salesforce training Frequency	Extent				
	1	2	3	4	5
My firm conducts training on a weekly basis					

My firm conducts training on a monthly basis					
My firm conducts training on a quarterly basis					
My firm conducts training on an annual basis					

**SECTION E: SALESFORCE PERFORMANCE**

23 Kindly provide the following information to help establish the salesforce behavior based performance levels in your firm. Use the following scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent

Salesforce behavior based performance	Extent				
	1	2	3	4	5
I prepare adequately in advance for sales presentations to the customers to improve on my presentation					
I always book for appointments with customers before going out for the meetings to save on time					
I prepares and submit monthly reports on time					
I always operate within set company budgets					
I offer after sales service to the customers to make sure that the customers are satisfied					
I supply the customers with brochures and other supporting materials for the company products to ensure customers understand the products well					
I have good planning skills that enables me to maximize on customers visits					
I have good presentation skills that helps me to gain customer confidence					
I carry out product demonstrations that helps me to gain new business					
I seek feedback from my managers on my performance for continuous improvement					
I have good knowledge of the company’ s products that enables me offer best solutions to the customers					

24 Kindly provide the following information to help establish the salesforce outcome based performance levels in your firm. Use the following scale where 1 = Very Small Extent; 2 = Small extent; 3 = Moderate extent; 4 = Large extent and 5 = Very large extent

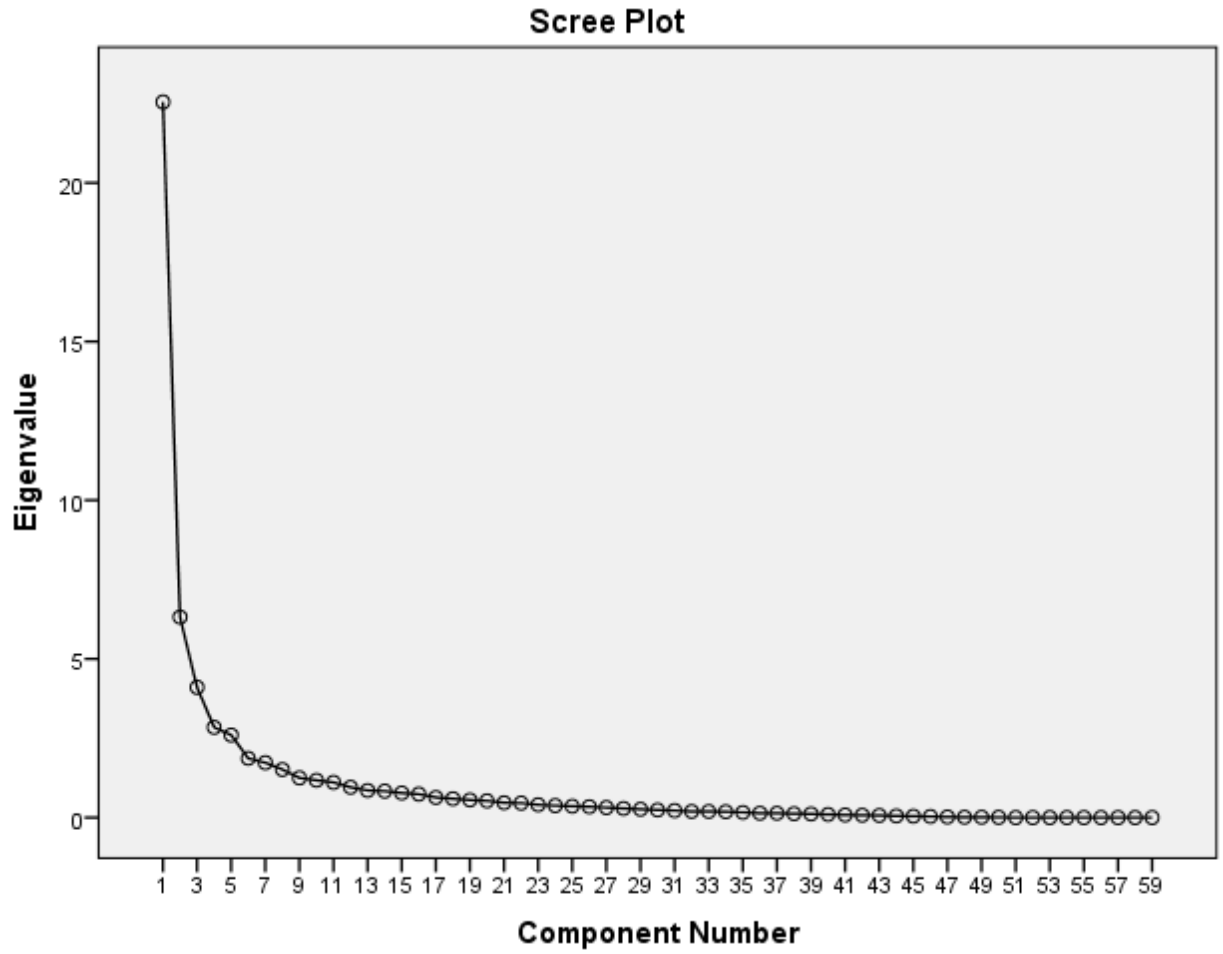
Salesforce outcome based performance	Extent				
	1	2	3	4	5
I achieve my sales targets every year					
I gain new accounts every year					
I sells products with high profit margins every year					
I sells new products to the customers every year					
I identify and sell to new accounts every year					
I achieve the set target for product demos every year					
I achieve the set profit targets every year					
I achieve the set sales target for new products every year					
I achieves the set target for customer visits every year					

### Appendix III: Total Variance Explained

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.663	38.202	38.202	15.663	38.202	38.202
2	3.714	9.058	47.259	3.714	9.058	47.259
3	2.887	7.040	54.299	2.887	7.040	54.299
4	1.920	4.684	58.983	1.920	4.684	58.983
5	1.764	4.304	63.287	1.764	4.304	63.287
6	1.681	4.100	67.387	1.681	4.100	67.387
7	1.229	2.997	70.383	1.229	2.997	70.383
8	1.119	2.728	73.112	1.119	2.728	73.112
9	1.002	2.445	75.557	1.002	2.445	75.557
10	.825	2.012	77.568			
11	.739	1.803	79.371			
12	.681	1.660	81.032			
13	.659	1.608	82.640			
14	.571	1.393	84.033			
15	.561	1.369	85.401			
16	.514	1.253	86.654			
17	.458	1.116	87.770			
18	.419	1.023	88.793			
19	.390	.951	89.744			
20	.364	.887	90.630			
21	.359	.875	91.506			
22	.329	.804	92.309			
23	.310	.756	93.065			
24	.284	.693	93.758			
25	.265	.646	94.404			
26	.225	.549	94.953			
27	.215	.525	95.478			
28	.202	.493	95.971			
29	.196	.478	96.449			
30	.179	.436	96.886			
31	.169	.412	97.298			
32	.161	.392	97.690			
33	.144	.350	98.040			
34	.133	.326	98.366			
35	.124	.302	98.668			
36	.118	.288	98.956			
37	.106	.259	99.216			
38	.104	.255	99.470			
39	.083	.201	99.672			
40	.072	.175	99.847			
41	.063	.153	100.000			

Extraction Method: Principal Component Analysis.

**Appendix IV: Scree Plot**








### Appendix V: List of Detergent Manufacturing Companies in Kenya

S/No	Name of Company	No of salespeople	Percent (%)	Sample size from each firm
1	Bidco Africa Ltd	42	7.54	25
2	Blue Ring Products Ltd	5	0.90	3
3	Buyline Products Ltd	10	1.79	6
4	Canon Chemicals Ltd	10	1.79	6
5	Chandaria Industries Ltd	30	5.36	18
6	Chemkleen Products	1	0.18	1
7	Colgate K Ltd	14	2.51	8
8	Diversey Eastern & Central Africa Ltd	27	4.85	16
9	Ecolab East Africa (K) Ltd	21	3.77	12
10	Elex Products Ltd	5	0.90	3
11	Haco Tiger Brands	18	3.28	11
12	Henkel Chemicals Ltd	11	1.98	6
13	Henkel Kenya Ltd	19	3.41	11
14	Hychem Hygiene & Healthcare Solutions Ltd	6	1.08	4
15	Impact Chemicals Ltd	4	0.72	2
16	Jet Chemicals (Kenya) Ltd	5	0.90	3
17	Kapa Oil Refineries Ltd	38	6.82	22
18	KIM Fay East Africa Ltd	12	2.15	7
19	Magic Chemicals	4	0.72	2
20	Menengai Oil Refineries Ltd	18	3.23	11
21	Nemchem International (K) Ltd	4	0.72	2
22	Neru (K) Ltd	10	1.79	6
23	Odex Chemicals	12	2.15	7
24	Polysynthetic East Africa Ltd	2	0.36	1
25	Pride Industries Ltd	8	1.44	5
26	Pwani Oil Products Ltd	16	2.87	9
27	Proctor & Gamble (EA) Ltd	50	8.98	28
28	PZ Cussons East Africa Ltd	10	1.79	6
29	Ramji Haribhai Devani Ltd	13	2.33	8
30	Reckitt Benckiser (EA) Ltd	10	1.79	6
31	Robico Chemicals Ltd	8	1.44	5
32	Stalite Systems Co Ltd	3	0.54	2
33	Soilex Prosolve Ltd	5	0.90	3
34	Sudi Chemical Industries Ltd	4	0.72	2
35	Super Brites Ltd	4	0.72	2
36	Spectra Chemicals (K) Ltd	5	0.90	3
37	Trade House Africa Ltd	5	0.90	3
38	Tropical Brands (Africa) Ltd	17	3.05	10
39	Unilever East Africa	56	10.05	33
40	Vivek Investments Ltd	15	2.69	9
	<b>Total no of Salesforce</b>	<b>557</b>	<b>100</b>	<b>326</b>

Source: Kenya Association of Manufacturers and Researcher (2023)



**Appendix VI: Research License from NACOSTI**

 <b>REPUBLIC OF KENYA</b>	 <b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b>
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