# STRATEGIC PLANNING AND INTERNET ADOPTION TO IDENTIFY COUNTERFEIT PRODUCTS AND ENHANCE PERFORMANCE OF MANUFACTURING FIRMS IN NAIROBI, KENYA

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# A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

# **DECLARATION**

This research proposal is my original work and has university or institution for academic credit.	as not been submitted to any other
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I thank God for His guidance through this academic journey and for enabling me to complete my studies. May all glory and honour return to Him. I sincerely appreciate my supervisor, Professor Martin Ogutu for his guidance and support that has enabled me to complete my project successfully. I specially convey my sincere gratitude to my family for their unwavering moral, emotional and financial support throughout my academic process. Thank you all for all the sacrifices made to make this dream a reality. I also wish to thank my friends for their encouragement, advice and moral support throughout my studies. Finally, I cannot fail to mention my colleagues for their support they accorded me. May God bless you all.

.

# **DEDICATION**

I dedicate this project to Almighty God who has been my source of strength, wisdom, knowledge and who has made all things possible. I also dedicate this project to my loving parents, my siblings and last but not least my friends.

#### **ABSTRACT**

This study examined strategic planning and internet influence in the detection of counterfeited products to enhance performance of firms. The findings from the study may help in confirming the need for the inclusion of strategic planning in countering counterfeits in manufacturing firms. The study attempted to answer if the adoption of strategic planning and internet adoption enable detection of counterfeit products and enhance performance. Two theories formed the basis of the study namely, profit maximization and Survival based theory. The research methodology employed was descriptive survey design and the findings were employed using graphs and tables. The data collection methods used was questionnaires which yielded a 100% response rate. The findings show that manufacturing companies engaged strategic planning and the internet adoption and this enhanced performance through detection of counterfeited products. The study recommended the use of strategic planning and the internet to detect counterfeit products and enhance the performance of manufacturing firms. Future studies should focus on advanced technologies in other countries apart from Kenya and other strategic management practices that will enhance countering counterfeits, for comparison purposes.

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## **ABBREVIATIONS**

**SMART** Specific Measurable Achievable Realistic Timely

**KPI** Key Performance Indicators

CII Confederation of Indian Industry

**FMCG** Fast Moving Consumer Goods

BMSGL Brand Mark Safety Global Limited

**CEO** Chief Executive Officer

KGs Kilograms

#### **CHAPTER ONE: INTRODUCTION**

#### 1.1 Background of the Study

Organizations are established in a dynamic environment that is changing with time and is characterized by the uncertainty of the environment limiting the ability of managers in decision making (Soin and Paul, 2013). Consequently, managers try to balance the uncertainties in the decision-making process. Environmental manufacturing industries arises when managers lack confidence in understanding the changes in the industries (Vechiato, 2015). Understanding drivers of change, therefore, becomes critical. The drivers create the motivation for change and forming the purpose for those who are targets of change (Anderson and Ackerman-Anderson, 2010). Li and Liu (2014) advocated for the need of organizations to embrace change and create change awareness to cater for not only their customer's interests but also their own to thrive in a dynamic market. Counterfeiting of goods by rogue manufacturers is one of the emerging issues that threaten the survival of manufacturing firms globally and Kenya in particular and requires an urgent solution through strategic planning and internet adoption. Strategic planning and Internet technology adoption should be incorporated into firms to identify counterfeits and enhance firm performance. This includes evaluation of the organization's mission and strategic issues hence strengthening current practices (Richard, 2015). Businesses are required to adopt new changes and up-to-date information to sustain their competitive force in a world experiencing rapid changes according to Liao and Wu, (2010). Andersen (2016) argues that to remain competitive in a globalized environment, manufacturing companies should evolve production systems and the changing market demands.

#### 1.1.1 Strategic Planning

Strategic planning is the identification of objectives of a business plan, formulating plans and programs to actualize the Strategic objectives and allocate resources to implement plans and programs (Omalaja, 2011). Bovaird (2009) emphasized that organizations without strategic planning lack direction and are incompetent. Guru and Karugu (2018) argue that strategic management practices comprise of strategy formulation, implementation and strategy control. Mitzberg (1996) elaborates that strategic planning is executed by strategists involving a number of parties in research and the organization in relation to the competitive environment. The practice considers the main stages in strategic management process which are formulation, implementation, evaluation and control (Johnson, 2009). Wambugu (2011) argues that strategic planning faces a challenge due to conflicting interests whenever people pursue diverse goals.

Strategic management addresses the "why it is important" concept since it relates to the important concepts of strategy and it is analytical in nature relating to formalized procedures in data generation for strategic thinking. Richard (2015) emphasizes that strategic planning includes an evaluation of the organization's mission and strategies issues to focus on objectives. Strategies are established by organizations to determine the direction of the organization hence providing consistency of guidelines used in the environment to enhance strategic foresight. Vechiato (2015) defines strategic foresight as futuristic in gathering intelligence leading to vision-building and achievement of goals.

Grant (2016) emphasizes that strategy involves strategic formulation, achievement of goals and allocation of resources, which requires actions and decisions leading to effective communication within the organizations hence enhancing efficiency and effectiveness of business transactions. McKeown (2011) agrees with Grant (2016) emphasizing strategy enhances shaping the future to get desirable end results, hence it is futuristic. Two theories of strategic management, the survival-based theory and profit maximization theory are used to elaborate strategic planning. Survival-based theory infers that owning and efficiently controlling certain resources can generate competitive advantages for organizations as well as result in superior performance (Yang and Conrad, 2011). In the profit maximization theory, the strategies taken up by firms are influenced by the decisions made by policymakers and other regulatory bodies. Based on these theories manufacturing organizations can use resources like the Internet with strategic planning to adapt and develop sustainable protecting mechanisms for their products and protect their consumers against harmful products from rogue manufacturers. Counterfeiting of goods by rogue manufacturers is one of the issues dictating changes in organizations' strategic management globally. This counterfeiting is an emerging issue in many organizations that threaten their very existence in a dynamic environment and therefore requires urgent solutions expected to emanate from the strategic management theories discussed above.

#### 1.1.2 Internet Technology Adoption

The internet enhances information technology (IT) with (John, 2009) emphasizing that (IT) is the use of computers to store and retrieve data or information which can be manipulated. The internet links networks of people, businesses as well as parastatals

globally. The internet is a combination of objects, people, information and computers and can further be elaborated to give a world a new meaning where one is hyper-connected and data-saturated (Wooldridge, 2015). New business models have developed which show organizations how to use technology or to pursue a collective goal (Gay *et al.*, 2009).

The internet enhances strategic objectives and is concerned with the setting the process of distribution of resources and consists some consistency of decisions and actions (Grant, 2016). Technology has changed the companies enabling, global instant news, ideas and information travel faster (Middleton, 2010). The Internet can be used as a useful tool in helping managers handle change that affects customers in an organization. The world has been reduced to a global village by use of the internet. The internet is widely used in both private and public institutions namely schools, Non-Governmental Organization (NGO's), growth economies within countries etc. Monostori (2014) argues elaborates that opportunities provided by the internet revolutionize the use of computers and enhance efficiency and strategic foresight in technology usage.

The study seeks to highlight the importance of strategic planning in counterfeits detection with internet adoption to enable manufacturers and consumers detect authentic products. Hubner (2007) elaborates on previous research on counterfeits focusing on its demand-side (non-deceptive counterfeiting) and supply-side (deceptive counterfeiting), and the negative impacts of the internet in enhancing counterfeiting. However, studies on cost-effective ways of countering counterfeits by the use of the internet with strategic planning have not been reported. This research seeks to address the above knowledge gap.

#### 1.1.3 Identification of Counterfeit Products to Enhance Performance

Sanjay (2009) emphasizes identification of counterfeits to involve their detection through anti-counterfeit technological implementation as a preventive solution. Detection of counterfeits enables a firm to come up with strategies to address weakness and threats of the firm to their advantage hence enhancing performance. Peng (2012) describes a counterfeit as a duplication of an original product to make it look exactly like an authentic product but of poor quality and performance. Anti-counterfeit solutions are therefore needed across a range of different industries including pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products, vehicle oils and spares and other products in manufacturing firms. The presence of counterfeit products of poor quality causes producers of authentic goods to offer new products of better quality at a higher price (Qian, 2014). Counterfeiters imitate original brands and produce their products selling them at a cheaper price (Peng, 2012).

Counterfeits often lead to health risk issues due to consumption and use of substandard goods by consumers, unfair competition from substandard duplicates as well as the reduction in revenue from genuine manufacturers (Shukla, 2009). Anti-counterfeit solutions are needed across a range of different industries including pharmaceuticals to ensure patients safety (Sanjay, 2009). The anti-counterfeit solution is required for the identification of counterfeits through technology as a prominent preventive measure hence the solution is necessary for food and beverage, bottled water, cosmetics,

agricultural chemicals, veterinary products, vehicles oils and spares and other products in manufacturing firms(Sanjeev, 2009). Counterfeits lead to health risk issues due to consumption and use of substandard goods by consumers, unfair competition from substandard duplicates as well as the reduction in revenue from genuine manufacturers. This study intends to establish how strategic planning and the internet have been adopted to deal with counterfeits in manufacturing firms.

#### 1.1.4 Manufacturing Firms in Kenya

The firms are a variety of industries including pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products, vehicles oils and spares and other products in manufacturing firms. Anti-counterfeit solutions are therefore needed across a range of different industries. Hieke (2010) emphasizes that manufacturers' markets have counterfeits that can be witnessed in deceptive markets, where customers are unfamiliar with products hence they are unable to tell whether a product is genuine or a counterfeit hence they purchase a counterfeit by accident.

The Kenya vision 2030 document shows the domination of counterfeit goods in the local market leads reduction in the market share for locally manufactured products hence discouraging innovation efforts hence reduction in government revenue and existence of a health hazard due to consumption by consumers. Majorly small industries are informal, leading to concentration of formal firms in major towns. Inadequate investment in industrial knowledge and technology, limits the growth of modern manufacturing.

#### 1.2 Research Problem

Counterfeiting of goods by rogue manufacturers is one of the emerging issues that threaten the survival of manufacturing firms globally and Kenya in particular and requires an urgent solution through strategic planning. Strategic planning involves the evaluation of the strategic issues of the organization's mission to strengthen current practices (Richard, 2015). Organizations should adapt to new changes and up-to-date technology and information to sustain their competitive force (Liao and Wu, 2010). Pearce and Robinson (2010), elaborate that existing and portable technology should be incorporated in strategic planning to deal with counterfeiting of goods by rogue manufacturers and this should be well understood at the planning level. This will be in line with the two theories of strategic management, the survival-based theory and the profit-maximization theory. Survival-based theory and profit maximization theory will involve efficiently controlling existing and portable technology to generate competitive advantages for manufacturing firms to enhance their superior performance while, efficiently controlling existing portable technology to generate competitive advantages for manufacturing firms to enhance their superior performance (Yang and Conrad, 2011). Counterfeits lead to health risk issues due to consumption and use of substandard goods by consumers, unfair competition from substandard duplicates as well as the reduction in revenue from genuine manufacturers with Qian (2014) emphasizing that the presence of counterfeit products of poor quality to cause producers of original goods to offer new products of better quality at a higher price.

The Anti-counterfeit Authority report (2018) showed that the level of counterfeiting in major towns like Kenya stood at 23% in 2016 and 16% in 2018. The slight reduction realized may be due to enhanced enforcement of anti-counterfeit regulations, public awareness activities on the danger of counterfeits and collaboration with major shareholders to deal with the menace. Sanjay (2009) emphasizes that anti-counterfeit solutions are needed across a range of different industries including pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products, vehicles oils and spares and other products in manufacturing firms to protect consumers and manufacturers from harmful effects of counterfeits. Technology to detect counterfeits by use of the latest Smartphone technology that is simple and easy to use by both the manufacturers and consumers, therefore anti-counterfeit solution through technology is a prominent preventive measure (Sanjay, 2009).

Previous research on counterfeiting focuses on its deceptive counterfeiting and non-deceptive counterfeiting and the negative impacts of the internet in enhancing counterfeiting (Hubner, 2007). However, studies on cost-effective ways of countering counterfeits by use of the internet have not been reported. Technology that enhances detection of counterfeits by use of the latest Smartphone technology that is simple and easy to use by both the manufacturers and consumers is needed; therefore anti-counterfeit solution through technology is a prominent preventive measure (Sanjay, 2009). This study will address this knowledge gap to enhance the efficient protection of manufacturers and consumers and enable governments to come up with strategies that will enforce penalties on counterfeiters, tracked by internet technology. Additionally, this will help the administration of manufacturing industries to adopt strategic practices that

will enable them to compete effectively. The knowledge gap is summarized as a research question, "does the adoption of the internet and strategic planning enhance identification of counterfeits in manufacturing firms?"

#### 1.3 Research Objective

To establish the influence of strategic planning and internet adoption in the identification of counterfeit products to enhance performance in manufacturing firms in Nairobi, Kenya.

#### 1.4 Value of the Study

This study will contribute to the body of knowledge by showing the relevance of strategic planning by use of the internet to counter rogue manufacturing counterfeits while protecting Consumers health. The study is beneficial to the body of knowledge with an emphasis on the relevant theories, survival-based theory and profit maximization and used in the study. The application of strategic planning from the study enhances performance management. Ireland *et al* (2011) emphasized on performance management helps in decision making as well as monitor the progress of achieving strategic plans and objectives. The extent of the application of strategic management practices differs from one field to another.

This study generated data to be used as a reference point in the manufacturing sector by the use of the internet to counter counterfeited products. The end results will be beneficial to the Kenya Association of Manufacturers as it will give guidance to policymakers on creating relevant policies that will enhance the efficient protection of manufacturers and consumers

#### **CHAPTER TWO: LITERATURE REVIEW**

#### 2.1 Introduction

This chapter deals with the theories which form the basis of the study. It also examines the literature on Strategic planning and determinants of business performance conceptual framework and empirical studies affiliated with strategic management and organizational performance based on protection from counterfeits using internet technology.

#### 2.2 Theoretical foundation

This research is established on two concepts which were fronted by scholars to explain the field of Strategic management.

#### 2.2.1 Profit Maximization Theory

Erakovic and Goel (2008) elaborate this theory to be based on the notion that an organizations aim is to gain and retain profits in the long run hence developing a competitive advantage over competitors in the external environment. The basis to this theory is the Industrial organization perspective since it emphasizes the external market positioning as a factor enhancing competitive advantage within the firms' internal resources.

Profit maximization theory, as elaborated by Lynch (2000), emphasizes that maximization of an organization's profitability in the long run enhances a competitive advantage over the philosophy of the firm. This theory also emphasizes that resources

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owned and controlled by the firm enhances superior firm performance and generate competitive advantages (Ainuddin *et al.*, 2007).

#### 2.2.2 Survival-Based Theory

The theory emphasizes that only the fittest and the best of competitors will win, leading to the competitive advantage of organizations (Abdullah, 2010). Organizations need to continuously adapt to environmental changes to survive. This theory also emphasizes that humans are involved in strategy development of organizations. Organizations should adopt the relevant theories and strategies that will enable them to maximize the shareholders' wealth as well as increase their market share as they adapt in tandem with the environmental changes.

The environment is dynamic Organizations need to do their market research to factor in customers' dynamic changes in tastes and preferences concerning technological changes on the discovery of new products. This will enable organizations to retain their customers and avoid brand switching from customers due to the discovery of new products. Organizations, therefore, need to monitor their products using the internet and the latest technology to secure their brands to maintain customer loyalty and a market lead (Wong and Yung, 2005). The Survival based theory should, therefore, should be adopted by organizations to ensure a sustainable competitive advantage through brand protection, Customer protection and monitoring of current trends in the market.

#### 2.3 Strategic Planning, the Internet and Firm Performance

# 2.3.1 Strategic Planning in Identification of Counterfeits and Firm Performance

Richard (2015) describes strategic planning as an evaluation of the organization's mission to focus, define and strengthen current practices hence enhance a firm's performance and provide a guideline in response to the environment. A strategy is a specific way of doing things through a set of rules of direction. Strategic decisions are meant to help organizations have an advantage when facing competition. Barnley and Herstely (2008), define strategy as a firm's theory in gaining competitive advantage. A strategic plan gives direction on work schedule, the workflow in the various departments within and shapes the future hence it is futuristic (McKeon, 2011).

The balance scorecard by Kaplan and Norton (1992), elaborates strategic planning to include, the analysis of the current external and internal environments developed, formulation of strategies, strategy execution and implementation where a plan is translated into operational planning and adopted by management.

# 2.3.2 Internet Adoption in the Identification of Counterfeits and Firm Performance

One of the ways to fight counterfeits is to integrate the internet in strategic management policies in such a way that customers identify counterfeits at the purchasing level. It is assumed that if they identify counterfeits and reject those in favor of genuine goods, the rogue companies will give up in counterfeiting since there will be a lack of a market for

their counterfeit goods. New business models have emerged enhancing technological use in organizations enabling achievement of competitive advantage (Gay *et al.*, 2009). The internet technology will involve a smartphone authentication System app downloaded from the App Store that enables scanning of Safety Icons that have encrypted information on products. Trace and track technology are useful whereby information is scanned, (Rajivdhar, 2009).

The internet can, therefore, enhance a firm's performance by protecting the firm against counterfeits. Packaging can have an indicator of protective barrier to entry, which will be visible evidence if tampering occurs. Search Engine Advertising can be done on the internet through applicable terms and policies that expressly prohibit advertisements promoting counterfeit goods by advertisers using Search engine advertising services. This should enforce those policies as the implementation of technology preventing counterfeits as a measure (Sanjay, 2009). Trademark owners and search advertising services can work collaboratively to target counterfeit ads. Berman (2008) emphasized that software such as Brandimensions and Mark Monitor that monitors websites to detect those which illegally make use of other created websites. Legal frameworks allow legal measures on the internet to curb counterfeits (Sanjay, 2009). This includes copyright and trademarks; Search Engine services can provide effective responses to trademark owners upon detecting counterfeit ads and legal sanctions can be put in place.

#### 2.4 Counterfeit Products and their Effects on Firms.

#### 2.4.1 Counterfeited Products

Peng (2012) defines counterfeits as illegally manufactured goods of lower quality in terms of durability. Counterfeits tend to occur as a result of demand and supply, whereby the counterfeiters will produce and consumers will buy. This is a challenge since fake products look like real products. The Kenya Anti-Counterfeit Act established in 2008, defines counterfeited goods as substandard goods manufactured, in place of genuine original products.

#### 2.4.2 The Effect of Counterfeits on Manufacturing Firms.

Yao (2006) emphasizes that the outsourcing of manufacturing technology has led to reduction in counterfeits. Consumers may, therefore, buy counterfeits at a cheaper price and lower quality goods if they happen meet their demands better than the high-quality expensive goods. The counterfeit products may compete with authentic products in brand image but the quality and packaging might be poor. The presence of counterfeit products of poor-quality has caused production of original goods to be offered new products of better quality but at a higher price (Qian, 2014).

Furnham and Valgeirson (2007) emphasize that individual counterfeit goods can substitute authentic ones at a lower price. Wilcox *et al* (2009) elaborates that consumers' can prefer counterfeit products to authentic ones depending on price. Consumption of products may differ among consumers based on their moral beliefs about certain products.

#### 2.5 Summary of Literature review and Knowledge gap

Counterfeiting of goods by rogue manufacturers is one of the emerging issues that threaten the survival of manufacturing firms globally and Kenya in particular and requires an urgent solution through strategic planning and internet adoption. Existing and portable technology should be incorporated in Strategic planning to deal with counterfeiting of goods by rogue manufacturers at the planning level (Pearce and Robinson, 2010). The survival-based theory and the profit-maximizing theory will be used to explain how the internet and strategic planning can counter counterfeits. Firms should cut on costs, increase profits and market share but little has been done in terms of strategic planning incorporated with internet adoption in reduction of the magnitude of counterfeits.

Peng (2012) defines counterfeits as substandard manufactured products that resemble authentic goods but of poor. Studies in the past also show that the internet may enhance counterfeits (Mavlanova, 2010). The problem, however, exists with the supply of a quick and up to date technology via the Internet that will enable manufacturers to keep track of the production of counterfeits. Technology that enhances detection of counterfeits by use of the latest Smartphone technology that is simple and easy to use by both the manufacturers and consumers is needed; therefore anti-counterfeit solution through technology is a prominent preventive measure (Sanjay, 2009).

#### CHAPTER THREE: RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter provides a framework of the research methods that were applied in this study. It covers the research design, the population of the study, the sample design, the data collection method and the data analysis.

#### 3.2 Research Design

Descriptive survey design is used in the research. Descriptive survey design provided an accurate picture of the facts and characteristics of a given population, the frequency of occurrence of certain events and establishes relationships (Dulock, 1993). The choice of the survey design was appropriate for this study since it represented a sample of manufacturing companies in Nairobi, Kenya. This cuts across pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products, vehicle oils and spares and other products in manufacturing firms. Descriptive survey design enabled the researcher to obtained standardized responses from the use of specific targeted questions. This enabled the researcher to meet their target to establish the influence of strategic planning and the internet on counterfeit products in manufacturing firms in Nairobi, Kenya.

# 3.3 The Population of the Study

The study population consisted of manufacturing companies within Industrial area in Nairobi County including 47 manufacturing companies. The target population was 14 companies focusing on a 30% response rate of the 47 firms selected to save time and money leading to a feasible approach of the study. The respondents covered in this study included managers, CEOs and subordinates of the target firms.

#### 3.4 Sample Design and Sample Size

The study covered companies that cut across 7 manufacturing areas including pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products and motor vehicle spare parts. Industrial area within Nairobi County is chosen because, the area is easily accessible, many manufacturing companies are situated within this area and the companies are in the same setting in terms of infrastructure.

#### 3.5 Data Collection

The study used relevant latest data in the manufacturing firms in Nairobi. Two research assistants were identified and trained on the purpose of the study and data collection procedures. Data in the survey was obtained through structured and close-ended questionnaires administered by the researcher and his assistants. The data was to give insight into strategic management practices implemented by the companies and their performance in the market in regards to counterfeit challenges they face. The performance was rated in terms of financial stability resulting to profit output after counterfeits are detected, market growth and how competition from counterfeits affects the companies as well as methods used to counter counterfeits and their effectiveness.

#### 3.6 Data Analysis

This study used descriptive and inferential statistics in analyzing the data collected by the use of a statistical tool. Measures of correlation and regression were used to ascertain the connection relating to the independent variables (Strategic Planning and Internet adoption) to the dependent variable (firm performance). Regression analysis is a statistical tool used to estimate the relationship between two variables (Independent and dependent variable. This can be written as:

$$Y=a + b1x1 + b2x2 + E$$

Where Y is the dependent variable reflected by the identification of counterfeited products to enhance (performance). The independent variables are strategic planning and internet technology adoption respectively. The constant variable is shown as (a),  $\mathcal{E}$  is the standard error and b1 and b2, are coefficients of the independent variables. The findings were portrayed using tables and graph

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter deals with analysis of data and the presentation of the findings. The findings

are presented in sections that cover the general details; strategic planning and internet

adoption in detection of counterfeits to enhance performance. Descriptive and inferential

statistics have been used to discuss the findings of the study.

**4.2 Response Rate** 

The study targeted a population of 14 companies focusing on a 30% response rate of the

47 firms selected from which 14 respondents representing the companies responded by

filling in questionnaires which were returned making the response rate 100%. This

response rate is satisfactory in making conclusions for the study as it acted as a

representative. Mugenda and Mugenda (1999) emphasize that; a response rate of 70% and

over is excellent, a rate of 60% is good and a response rate of 50% is sufficient for

analysis and reporting.

4.3 Organization and Respondent profile

**4.3.1** Respondents and Response rate

The study targeted response from include managers, CEOs and subordinates of the target

firms. The response was as shown in Table 4.1

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**Table 4.1: Respondents** 

Respondents	n	%
Auditor (Githunguri dairy)	1	7.14
Employee (GSK / Pharmaceutical)	1	7.14
Financial Controller ( Crown Solution)	1	7.14
Import and Export Section (Unilever Kenya/Food, Energy /Bread)	1	7.14
Manager ( Karlo/Ellena Co.ltd Agric, Glycerene, shampoo)	2	14.29
Manager Operations (Cooper Ke Brands, Animal products)	2	14.29
Manager Sales (Ozone Water )	1	7.14
Marketing Manager (REONIS Beauty & Cosmetics)	1	7.14
Production (Dawa Pharmaceuticals)	1	7.14
Researcher ( KARI)	1	7.14
Sales Executive (Isuzu EA)	1	7.14
Supplies Manager (Sonic Fresh Waters)	1	7.14

From Table 4.1 it is evident that the respondents were in the management levels from different companies in the targeted seven (7) manufacturing areas. Survey findings shows that most respondents were managers.

# **4.3.2** Types of Products

The population of the study targeted manufacturing companies within Industrial area in Nairobi County. The study was to cover firms cutting across 7 manufacturing areas

including pharmaceuticals, food and beverage, bottled water, cosmetics, agricultural chemicals, veterinary products and motor vehicle spare parts. The following manufacturing companies were involved in the study. The response was as shown in Table 4.2

**Table 4.2: Type of products** 

Type of products	n	%
Agricultural Products	2	14.3
Animal Products	1	7.1
Bottled Water	2	14.3
Cosmetics	1	7.1
Dairy Products	1	7.1
Electrical Items	1	7.1
Food, Energy Drink and Beauty Products	1	7.1
Motor Vehicle	1	7.1
Pharmaceuticals	3	21.4
Sanitizer, Shampoo and Glycerin	1	7.1
Total	14	100

Research findings shows that majority (21.4%, n=3) of the response was from the pharmaceuticals firms, followed by agricultural and bottled water which had a response of 14.3% (n=2) each. The rest had one (1) response each as shown in table 4.2 above

## 4.3.3 Volumes Produced in a Day in Kilograms

The response was as shown in Table 4.3

**Table 4.3: Volumes produced** 

volumes produced	Freq.	Percent
90,000 – 100,000	3	21.4%
80,000 – 90,000	1	7.1%
70,000 - 80,000	1	7.1%
60,000 - 70,000	1	7.1%
50,000 - 60,000	2	14.3%
30,000 – 40,000	1	7.1%
20,000 - 30,000	2	14.3%
10,000 - 20,000	1	7.1%
Below 10,000	2	14.3%
Total	14	100

Table 4.3 above shows the volumes produced and distributed by sampled companies. According to the study, 21.4% (n=3) produced a volume of 90,000 - 100,000 kgs in a day, followed by companies producing either 50,000 - 60,000, 20,000 - 30,000 or Less than 10,000 kgs.

# 4.4 Strategic Planning

# **4.4.1** Communication of the Strategic Plan

The response on Communication of the strategic plan was as shown in Figure 4.1

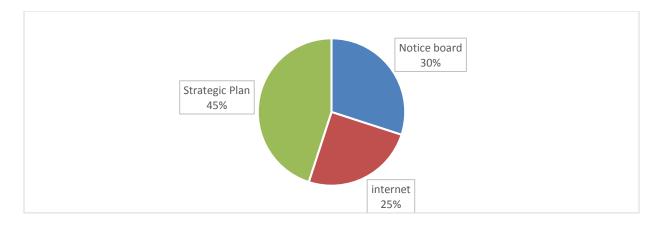


Figure 4.1: Communication of Strategic Planning

Almost half (45%, n=9) of the respondents communicate to stakeholders on strategic planning via strategic Plan, 30%, n=6 via notice board and 25%, n=5 via the internet.

#### 4.4.2 Formulation of Strategies

The response at which Stakeholders are involved the formulation of strategies was as shown in Table 4.4

Table 4.4: Stakeholder involvement in the formulation of strategies

Stakeholders	n	Mean	Std.
			deviation
Experts	14	4.07	1.269
CEO	14	4.86	0.363
Managers	14	4.57	0.646
Employees	14	3.43	1.158

The study determined to what extent the respondents agree with the above question on the involvement of stakeholders in the formulation of strategies. The CEOs are largely involved in the formulation of strategies as shown by a mean of 4.86, managers as shown by a mean of 4.57, experts as shown by a mean of 4.07 and that employees are moderately involved in the formulation of strategies as shown by a mean of 3.43.

# **4.4.3** Company Engagement

The response on Company Engagement was as shown in Table 4.5

Table 4.5: Company activities engagement in the formulation of strategies

Activities	n	Mean	Std.
			deviation
Developing long term objectives for the company	14	4.43	0.852
Formulation of the vision and mission statements	14	3.93	1.072
Performance analysis with outcomes	14	4.21	0.699
Situational analysis	14	4.29	0.726
Strategy formulation and choice	14	3.71	0.825
Implementation	14	4.14	0.949

The study was seeking to determine the level to which respondents agreed with the above statements on the level of the extent to which the company engage in the above activities. Respondents believe in the development of long-term objectives for the company is engaged at a great extent as shown by the mean of 4.43, Situational analysis as shown by mean of 4.29, Performance analysis with outcomes as shown by the mean of 4.21 and implementation as shown by a mean of 4.14. The study shows that formulation of the vision and mission statements and strategy formulation and choice engagement by the company is at a moderate extent as shown by the mean of 3.93 and 3.71 respectively.

#### 4.5 Counterfeits

#### 4.5.2 Counterfeit Cycle

The response on how often counterfeit are experienced on the production cycle was as shown in Figure 4.2

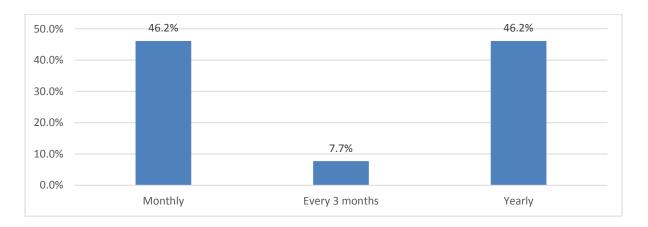


Figure 4.2: Counterfeit cycle occurrence

Most of the respondents (46.2%, n=6) experience counterfeits monthly and yearly during the production cycle.

## 4.5.3 Methods used in Tracking Counterfeits

Companies interviewed used several methods to track counterfeits. Methods used are Bar Coding and Patenting; By trademark; Collection of information from distributors; E-commerce counterfeit tools; Market surveys; Online resources; Register intellectual property; Tagging and use of track and trace.

#### **4.5.4** Effectiveness of Methods

The response on effectiveness of methods in detecting counterfeits was as shown in Table

**Table 4.6: Effectiveness of methods** 

Tracking methods	n	Mean	Std.
			deviation
Using track and trace technology	13	3.46	1.561
Using the internet	13	3.77	1.092
Use of trademarks	13	4.15	0.899
Use of lawyers	13	2.31	1.316
Use of QR codes and RFID (Radiofrequency	13	3.46	0.967
identification) tags			
Other methods used.	12	3.33	1.155

The study wanted to establish the level to which respondents agreed with the above statements relating to the effectiveness of the above methods in tracking counterfeits. The research findings depict that, majority of the respondents believe that; Use of trademarks is a good method in tracking counterfeit as shown by a mean of 4.15. Using the internet is fair as shown by a mean of 3.77, Use of QR codes and RFID (Radiofrequency identification) tags and Using track and trace technology as shown by a mean of 3.46 each and other methods used as shown by a mean of 3.33. Use of lawyers as a method of tracking counterfeit proved to mean a poor method as shown by a mean of 2.31.

# 4.5.5 Company Engagements in Detecting Counterfeits

The response on Company engagements in detecting counterfeits was as shown in Table

Table 4.7: Company engagements in detecting counterfeits

Engagement	n	Mean	Std.
			deviation
Engagement with lawyers	14	2.29	1.326
Engagement with Kenya Association of	13	3.85	1.281
Manufacturers			
Engagement with major company shareholders		3.86	1.351
Engagement with the management team	14	4	1.359
Engagement with employees		3.57	1.342

The study wanted to establish the extent to which respondents agreed with the statements relating to Company engagements in detecting counterfeits, from the research findings, majority of the respondents believe that company engagement with the management team is at a great extent as shown by a mean of 4. Engagement with major company shareholders and engagement with Kenya Association of Manufacturers is at moderate extent as shown by a mean of 3.86 and 3.85 respectively and engagement with employees as shown by a mean of 3.57. Engagement with lawyers is at less extent as shown by a mean of 2.29.

# 4.5.6 The Extent to which the Internet is used in Organizations

The response of the extent to which the internet is used in organizations was as shown in Figure 4.3

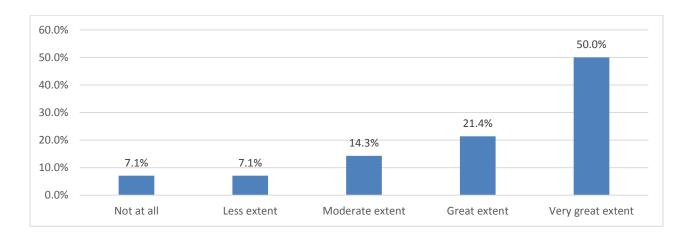


Figure 4.3: Internet use

Half of the respondents (50%, n=7) said the use of the internet in the organization is at a very great extent followed by 21.4%, n=3 organization who use the internet at a great extent while only 7.1%, n=1 organization do not use the internet at all.

# 4.5.7 Frequency of Occurrence

The study sought for find out the frequency of occurrence of each type of counterfeit. The response was as shown in Figure 4.4

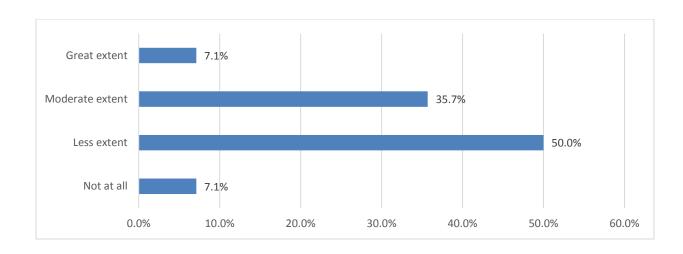


Figure 4.4: Frequency of occurrence

Half of the respondents (50%, n=7) indicated that the frequency of occurrence of each type of counterfeit encountered is at a less extent level and notably 7.1%, n=1 indicated that the level of occurrence is at a great extent.

# 4.5.8 Countering of Counterfeits

The study sought for find out the extent at which strategic planning and internet is used in the firm to enable countering of counterfeits. The response was as shown in Table 4.8

**Table 4.8: Countering of Counterfeits** 

Practice	n	Mean	Std. deviation
Strategic Planning	14	3.43	1.158
The Internet	14	3.50	1.401

The extent to which strategic planning and use of internet in firms is portrayed in the study. From the research findings, The Internet and Strategic Planning contribute moderately in the firm to able countering of counterfeits as shown by a mean of 3.50 and 3.43 respectively.

#### 4.6 Statistical Inference

#### 4.6.2 Introduction

The study indicated a linear association between the independent and dependent variables hence conducted Pearson correlation analysis to help in determining the strengths of association in the model.

## **4.6.3** Model Summary

The research findings model was as shown in Table 4.9

**Table 4.9: Model summary** 

Variable		Strategic planning	Internet adoption	Performance
Strategic planning	Pearson Correlation	1		
	Sig. (2-tailed)			
Internet adoption	Pearson Correlation	0.075	1	
	Sig. (2-tailed)	0.799		
Performance	Pearson Correlation	.377**	.716**	1
	Sig. (2-tailed)	0.001	0.004	
** Correlation is sig	gnificant at the 0.01 le	evel (2-tailed).		

According to the results shown in Table 4.9 strategic planning and internet adoption depicted a positive association with firm performance in countering counterfeits. A strong positive relationship is established between firm performance and internet adoption.

Correlation analysis in Table 4.9 above shows an association on strategic planning and internet adoption on their influence on firm performance in countering counterfeits. The two factors were reported as significant at 95 confidence level. Correlation analysis to determine the influence of strategic planning and internet adoption in the identification of counterfeit products to enhance performance shows that a significant correlation existed (r=0.377, P<0.005) and (r=0.716, P=0.005). Pearson correlation coefficient was higher than 0.5 which is a clear indicator that the relationship between the two variables is strong. The analysis yielded strong Pearson coefficient values thus it is evident that strategic planning and internet adoption affect performance in countering counterfeits.

# 4.6.4 Linear Regression

The study sought for find out the relationship between a scalar response and the explanatory variables. Table 4.10 shows the relationship.

**Table 4.10: Linear Regression** 

Model	R	R Squar e	Adjusted R Square	Std. Error of the Estimate
1	.786a	0.617	0.548	0.80708
a Predictors: (Constant), internet ado	ption, strat	egic plan	ning	

Findings revealed that there exists a strong relationship as shown by 0.786. R squared is 0.617 which implies that is 61.7% of the influence of performance in identifying

counterfeits can be accounted to strategic planning and internet adoption. Thus, it can be concluded that other determinants of performance in identifying counterfeit products contribute to 38.3%. The adjusted R squared is the coefficient of determination which tells us the variation in the dependent variable.

#### **4.6.5** Analysis of Variance (ANOVA)

The study sought for find out the statistical model and the association used to analyze the differences among means. Table 4.11 shows the findings.

Table 4.11: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.567	2	5.783	8.879	.005 b
	Residual	7.165	11	0.651		
	Total	18.732	13			

a Dependent Variable: performance on identifying counterfeits products

The findings indicate that correlation between internet adoption and strategic planning and performance in identifying counterfeit products in manufacturing firms. A significance level of 0.005 is less than 0.05 thus the model is significant.

# 4.6.6 Regression Coefficient Results

Table 4.12 shows the findings of the regression coefficient whether it is a positive or a negative.

**Table 4.12: Regression coefficient results** 

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.

b Predictors: (Constant), internet adoption, strategic planning

		В	Std. Error	Beta		
1	(Constant)	-4.138	2.567		-1.612	0.135
	Strategic planning $(X_1)$	1.028	0.592	0.325	1.739	0.000
	Internet adoption (X <sub>2</sub> )	0.988	0.267	0.691	3.698	0.004
a Damandan	t Vaniahla, manfar		idantifrina.		a4a	

a Dependent Variable: performance on identifying counterfeit products

From the summarized data in table 4.11 above established a regression equation;

$$Y = -4.138 + 1.028X_1 + 0.988X_2 + \varepsilon$$

From the equation above, the two factors have a positive coefficient. Strategic planning  $(X_1)$  and Internet adoption  $(X_2)$  are statistically significant.

#### 4.7 Discussion

From the data analysis conducted, the study shows a positive correlation between the independent variable (internet adoption and strategic planning) and the dependent variable (performance on identifying counterfeits products in manufacturing firms). The findings match those of Sanjay (2009) who stated that anti-counterfeit solution through technology is a prominent preventive measure

# CHAPTER FIVE: SUMMARY OF FINDINGS CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

Recommendations were made from the data collection and analysis of the following summary, conclusion and findings. The responses were based on the study objectives. The survey sought to establish the influence of strategic planning and internet adoption in the identification of counterfeit products leading to performance enhancement in manufacturing firms in Nairobi, Kenya.

#### **5.2 Summary of the Findings**

Regarding the data collected and analyzed from the fourteen manufacturing firms in Nairobi, almost half of the firms' communication on strategic planning to stakeholders is done using the strategic plan. The findings show that CEOS, Experts and company managers are involved at a great extent in the formulation of the strategic plan while employees are moderately involved.

The study revealed that most manufacturing firms experience counterfeits on a monthly and yearly basis depending on the firms' production cycle. Out of the interviewed companies, the occurrence of counterfeits was being experienced at a less extent. Internet use in firms at a great extent was over 70% however, use of trademark proved to be the most effective methods in tracking counterfeits.

The study also revered that, strategic planning and internet are used at a great extent in firms to enable countering of counterfeits.

#### 5.3 Conclusion

The adoption of the internet and strategic planning to identify counterfeits and enhance performance leads to an increase in manufacturing firms as shown by the results of the study. This leads to a conclusion based on the findings that manufacturing firms increase based on this observation.

There is need for Technology to detect counterfeits by use of the latest Smartphone technology that is simple and easy to use by both the manufacturers and consumers, therefore anti-counterfeit solution through technology is a prominent preventive measure (Sanjay, 2009). Previous research on counterfeiting focuses on non-deceptive counterfeiting and deceptive counterfeiting) and the negative impacts of the internet in enhancing counterfeiting (Hubner, 2007). However, studies on cost-effective ways of countering counterfeits by use of the internet have not been reported. Technology that enhances detection of counterfeits by use of the latest Smartphone technology that is simple and easy to use by both the manufacturers and consumers is needed. Therefore, anti-counterfeit solution through technology is a prominent preventive measure (Sanjay, 2009). This study addresses the above hence enhances the efficient protection of manufacturers and consumers and enable governments to come up with strategies that will enforce penalties on counterfeiters, tracked by internet technology.

Additionally, this will help the administration of manufacturing industries to adopt strategic practices that will enable them to compete effectively. The knowledge gap is summarized as a research question, "do the adoption of the internet and strategic planning enhance identification of counterfeits in manufacturing firms? The internet technology will involve a smartphone authentication System app downloaded from the App Store that enables scanning of Safety Icons that have encrypted information on products. Trace and track technology can be useful whereby information can be traced backed up in a database (Rajivdhar, 2009)

#### **5.4 Recommendations**

The study established that the use of strategic plan and internet adoption has a positive impact in identifying counterfeit products to enhance performance in manufacturing firms. Internet is the future of the world and there is a need to fully embrace the internet in all firms.

Manufacturing firms in Nairobi to should embrace the use of strategic planning in identifying counterfeits since it will put in place measures like budgeting, and hence will enhance planning. Counterfeits can also be traced on time using technology and this will enable firms cut on costs.

Internet adoption will enhance performance since internet technology will involve an authentication System that enables scanning of Safety Icons that have encrypted information on products.

# **5.5** Limitation of the Study

Data collection was done during the COVID-19 pandemic period. Research assistants encountered several challenges like uncooperative interviewees and it was hard to meet some respondents due to interaction guidelines set by Ministry of Health and lack of trust to meet a new person since the condition is not ascertained.

#### **5.6 Suggestion for Further Research**

The study recommends further research to be done on other variables like leadership styles and regular market analysis in order to enhance performance by identification of counterfeit products than those used in research.

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# APPENDIX I: RESEARCH QUESTIONNAIRE

# STRATEGIC PLANNING AND INTERNET ADOPTION IN IDENTIFYING COUNTERFEIT PRODUCTS TO ENHANCE PERFORMANCE OF MANUFACTURING FIRMS IN NAIROBI, KENYA

#### **Section A: General Details**

1. Nar	ne of the company	
2. Pos	ition: Job Title of the respond	lent
3. Typ	e of Products Manufactured i	n the company
4. Vol	umes produced in a day in Ki	lograms. Please tick (√) appropriately.
a.	90,000-100,000 ( )	f. 40,000-50,000 ( )
b.	80,000-90,000 ( )	g. 30,000-40,000 ( )
c.	70,000-80,000 ( )	h. 20,000-30,000 ( )
d.	60,000-70,000 ( )	I. 10,000-20,000 ( )
e.	50,000-60,000 ( )	j. below 10,000 ( )
Sectio	n B: Strategic Planning	
	ow are Strategic Planning priately	communicated to stakeholders? Please tick (√)
a.	Notice board ( )	
b.	Internet ( )	
c.	Strategic plan ( )	

The following key applies to questions 6, 7,11,12,13 and 14.

Key: 1-Not at all, 2-less extent, 3-Moderate extent, 4-Great extent, 5-Very great extent.

6. using the scale of 1-5, kindly indicate the extent to which the following stakeholders are involved in the formulation of strategies showing the extent.

	1	2	3	4	5
Experts					
CEO					
Managers					
Employees					

7. The following activities related to strategic planning, vision and mission statements, performance and situational analysis, strategy formulation and choice? Please indicate your answer by ticking in the appropriate column showing the extent.

	1	2	3	4	5
Developing long term objectives					
Developing long term objectives					
For the company					
Formulation of the vision and					
mission statements					
Performance analysis with					

#### **Section C: Counterfeits**

8. How often do you experience counterfeits depending on the production cycle?						
A. Monthly	( )					
B. Every 3 months	( )					
C. Yearly	( )					

9. What methods do you use to track counterfeits in the company??

10. How effective have the methods been in tracking counterfeits?

Please indicate your answer by ticking in the appropriate column showing the extent.

Methods used	1	2	3	4	5
Using track and trace technology					

Using the internet			
Use of trademarks			
Use of lawyers			
Use of QR codes and RFID (			
Radiofrequency identification)			
tags			
Other methods used.			

11. To what extent does your company engage in detecting counterfeits?

Please indicate your answer by ticking in the appropriate column showing the extent.

	1	2	3	4	5
Engagement with lawyers					
Engagement with Kenya					
Association of Manufacturers					
Engagement with major					
company shareholders					
Engagement with the					
management team					

Engagement with employees			

12. To what extent is the internet used in the organization?

Please indicate your answer by ticking in the appropriate column showing the extent.

.

	1	2	3	4	5
Use of the internet					

13. What is the frequency of each type of counterfeit encountered?

Please indicate your answer by ticking in the appropriate column showing the extent.

	1	2	3	4	5
Frequency of					
Occurrence					

14. To what extent is strategic planning and the internet used in the firm enabled countering of counterfeits?

Please indicate your answer by ticking in the appropriate column.

	1	2	3	4	5
Strategic Planning					
Practices					
The Internet					