

**INFLUENCE OF MARKETING MIX STRATEGIES ON SALES  
PERFORMANCE OF *BIXA ORELLANA* AMONG SMALL SCALE FARMERS  
IN KWALE COUNTY, KENYA**

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**A Thesis Submitted to the Institute of Postgraduate Studies of Kabarak University  
in Partial Fulfillment of the Requirements for the Award of Doctor of Philosophy  
Degree in Business Administration (Marketing)**

**KABARAK UNIVERSITY**

**JUNE, 2021**

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## **DEDICATION**

This work is dedicated to my beloved wife, Eishebah Cheruiyot, my children, siblings and my mother.

## ABSTRACT

*Bixa Orellana*, a natural food-colour, is in high demand in both local and international markets due to its health benefits. The sales performance of the crop remains relatively low in Kenya despite its potential contribution towards increasing *Bixa* farmers' income. Unlike other cash crops, the marketing efforts of *Bixa* remains unstructured and has been the obligation of small-scale farmers who produce the crop. It therefore remains unclear whether such efforts have influenced the sales performance of *Bixa Orellana*. The purpose of this study was to investigate the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among Small Scale farmers in Kwale County, Kenya. The specific objectives of the study were to: examine the influence of product strategy; assess the influence of pricing strategy; establish the influence of place strategy; examine the influence of promotion strategy; and examine the moderating effect of Government policy on *Bixa Orellana* value chain on sales performance of *Bixa Orellana* among Small Scale farmers in Kwale County, Kenya. The study was underpinned by the Consumer Utility Theory, Theory of Pricing, AIDA model and Distribution Channel Theory. The study adopted a positivism research paradigm and a descriptive survey research design. The target population for the study was 2,419 registered small scale *Bixa* farmers in Kwale County. The sample size was 106 farmers who were selected using simple random sampling technique. The research instruments were a Questionnaire and an Interview schedule. Reliability of the Questionnaire was tested and confirmed as 0.831 using Cronbach Alpha while validity was confirmed using expert opinion. Both Data analysis which was done with the aid of SPSS version 21.0 software. Descriptive statistical analysis involved; calculation of means, standard deviations and percentages; inferential statistical analysis involved simple and multiple regression analysis; and thematic analysis was used for interviews. From simple regression analyses, the study found out that except for placement strategy, product, price and promotion strategies had significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County. However, multiple regression analysis results indicated that among the 4Ps only promotion strategy had a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. The moderating effect of Government policy on *Value chain of Bixa Orellana* was found to be statistically insignificant, and not affecting the relationship between marketing mix strategies and sales performance of *Bixa Orellana*. The study concluded that product and pricing had a positive but insignificant influence on sales performance of *Bixa Orellana* while placement and promotion strategies had negative insignificant and significant influences on sales performance of *Bixa Orellana*, respectively. The study recommends that; small scale farmers should adopt the appropriate 4Ps marketing mix strategies in order to improve sales performance of *Bixa Ollerana* with a deeper focus on pricing and promotion strategies. It also recommends that Kenya government through its agencies should formulate and implement policies that will contribute towards enhancing production and marketing of the crop in the country. This study is expected to serve as a theoretical model for future studies in the area. It has also contributed towards unveiling the influence of marketing mix strategies on sales performance of *Bixa Orellana* among small scale farmers and has made policy recommendations towards production and marketing of the crop in the country.

Keywords: *Marketing Mix, Marketing Mix Strategies, Product Strategy, Pricing Strategy, Promotion Strategy, Placement Strategy, Value Chain, Sales Performance.*

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## **ABBREVIATIONS AND ACRONYMS**

<b>4Ps</b>	Price, Product, Promotion and Place
<b>7Ps</b>	Price, Product, Promotion, Place, People, Process and Physical evidence/ Packaging
<b>AIDA</b>	Attention, Interest, Desire, and Action
<b>AMA</b>	American Marketing Association
<b>ANOVA</b>	Analysis of Variance
<b>CRM</b>	Customers Relationship Management
<b>ERS</b>	Economic Recovery Strategy
<b>FDA</b>	Food Drugs Administration
<b>FDI</b>	Foreign, Direct Investment
<b>GMO</b>	Genetically Modified Organisms
<b>GOK</b>	Government of Kenya
<b>IBT</b>	Internet Based Technology
<b>IMC</b>	Integrated Marketing Communication
<b>KPI's</b>	Key Performance Indicators
<b>MNC</b>	Multinational Corporation
<b>MSP</b>	Mobile Service Providers
<b>MT</b>	Metric Tons
<b>NACOSTI</b>	National Commission of Science, technology and Innovation
<b>OLS</b>	Ordinary Least Square
<b>RBV</b>	Resource Based Value

## OPERATIONAL DEFINITION OF TERMS

**Marketing Mix:** These are controllable variables that the marketer uses to achieve the targeted amount of consumer or revenue in the target market. The mix includes; product, price place promotion, people, physical evidence and process (Kotler, 2012). In this study, marketing mix refers to the 4 Ps of the first line marketing strategies; Product, Price, Promotion and Placement Mix.

**Marketing Mix Strategies:** This is an action planned to increase sales and growth of market share in a competitive environments (Marjanova and Stojanovski, 2012). According to Kotler (2015), the product, price, place and promotion (4Ps) are strategies that organizations use to react to the market and internal forces that will enable an organization achieve its marketing objectives. In this study, it refers to the comprehensive plan by Small Scale *Bixa* farmers using the 4Ps to develop the market in order to increase sales for the crop.

**Placement Strategy:** This is the approach used by the company to carry goods and services to various platforms and networks with the goal of reaching the end user, either directly or indirectly. The intermediaries include the agents, wholesalers, distributors and also retailers. These elements help in ensuring that a firm has provided the customers with quality customer service that has an influence on the level of customer satisfaction (Palmer, 2011). In this study, placement strategy describes the channels *Bixa* small scale farmer use for distributing *Bixa Orellana* seeds.

**Pricing Strategy:** Pricing strategy refers to a set of actions and considerations put in by organizations in arriving at a value of a product that will be a source of competitive advantage and improve performance (Foss, 2012). In this study the definition refers to approaches and methods used by small scale *Bixa* farmers to establish the price of the crop consideration of Small Scale *Bixa* farmers put in place to competitively arrive at the monetary value of their products.



**Product Strategy:** Product strategy refers to physical or symbolic qualities differentiated that a company offers to the target market in order to satisfy needs. In this study product strategy refers to the quality of *Bixa* product as well as the varieties that small scale farmers produce on their farms for sale (Sraha, 2016).

**Promotion Strategy:** The strategy is made up of a variety of elements that involve personal sales, sales promotion, advertising, public relations and direct marketing. These elements have an influence on the relationship of the customer and the firm that is essential towards improving the sales of a product or service (Lehtinen, 2011). In this study, promotion strategy refers to action plans that *Bixa* small scale farmers use to make customers know about the product offered to the market.

**Sales Performance:** Sales performance refers to sales volume made during a predefined duration, in comparison to the predetermined sales levels (Rotich, 2016). Sales performance is the evaluation of sales quantity generated by the business activities primarily of the individual sales representative (O'Sullivan & Abela Abela, 2007). In this study sales performance refers to the earnings realized by small scale farmers from the sale of *Bixa* as indicated by sales volume, customer loyalty, revenue and profitability.

**Small Scale Farmers:** Small scale farmers are those with a low asset base, operating 0.2 to 12 acres of farmland; Lipton (2005). In this study, small scale farmers were the *Bixa* farmers with less than 12 acres of farmland who have committed part of the land to the production of *Bixa*.

**Value Chain:** Value chain is set of processes and activities that a corporation undertakes to generate value for its customers and gain competitive advantage (Munyi & Deya, 2019). In this study, value chain is the processes and activities that *Bixa Orellana* small scale farmers undertake to generate value for its customers in order to increase *Bixa Orellana* sales performance (Jacoby, 2005).

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This section covers; the study's context, the demand for natural food color, the marketing mix strategy, Bixa Orellana production, the problem statement, the purpose of the study, the objectives of the study, the hypotheses of the study, the significance of the study, the limitations and limitations of the study and the assumptions of the study.

#### **1.2 Background of the Study**

Marketing is critical to a company's growth and progress, and innovation often plays a key role. Effective marketing activities, according to Marjanova and Stojanovski (2012), include sales and production, which contribute significantly to market share growth in a competitive setting. Marketing strategies have been co-related with business growth in research, the result is improved business productivity. According to Pike (2015), marketing is a vital management discipline for ensuring that product and service providers correctly view consumers' needs, wishes, and expectations. Marketing focuses on the basic strategies that any organization must follow, such as recognizing potential buyers, conducting a comprehensive analysis into their interests and desires, evaluating the factors that affect their buying decisions or, rather, who the decision-maker is, persuading them to buy goods and receive services from them rather than from a competitor, and persuading them to purchase products and obtain services from them rather than from a competitor (Pike, 2015).

According to Dumitru (2012), marketing strategy is generally accepted as a vital method for a company's survival in a competitive market. According to Owomoyela et al. (2013), marketing strategy is a method of distributing useful products and services that meet the

needs of customers. It offers a reasonable price, necessitates a larger supply, and encourages an effective marketing campaign (Owomoyela, Oyeniyi & Ola, 2013). Marketing campaigns have a great product that meets customer needs, is reasonably priced, and appeals to a wider audience, as well as a solid marketing plan (Adewale, Adesola & Oyewale, 2013).

Many companies are seeking to use marketing as their competitive strategic strategy. From the simple definition of the marketing theory, it is intended to manipulate the Customers' buying behavior which is influenced by persuasion, awareness, and a variety of other techniques, all with the aim of increasing their business effectiveness. Despite this, CEOs believe that marketing is one of the most critical aspects of their business. What, on the other hand, would be the best marketing tool to use in order to encourage or create an effect on the company's success? (Aremu & Lawal, 2012). Marketing strategy, according to Owomoyela, Oyeniyi, and Ola (2013), is a way to create a high-quality product that meets customer needs, offers fair pricing, and participates in a wider distribution network, and is backed up by a strong advertisement strategy. Marketing strategy is a critical prerequisite for an industry's ability to increase market share and reduce competitor's impact.

### **1.2.1 Global Perspectives Marketing Mix Strategies and Sales Performance**

The marketing mix strategy has evolved into a critical strategic tool for ensuring the dynamic market's long-term viability. According to Palmer (2010), the marketing mix is a conceptual structure that marketing managers use to develop strategies for targeting their market and meeting customer needs. Product, price, place, and promotion, according to Kotler (2015), are techniques that companies use to respond to market and internal forces that will enable the business to achieve its goal.

Companies that have introduced effective marketing strategies, according to Ghouri, Khan, Malik, and Razzaq (2011), are capable of growing their sales performance, market share, and competitive advantage. Companies use the marketing mix as a business tactic to achieve a competitive edge. The marketing mix refers to the 4Ps (Product, price, place and promotion) that businesses use in their marketing process to achieve business goals and meet customer needs and expectations. It is a collection of tactical marketing tools that marketing managers can keep track of, such as product, price, location, and promotion, in order to reach a particular target (Shankar and Chin, 2011). Owomoyela *et al.*, (2013) often see marketing strategy as a way to produce a quality product that meets consumer desires, offers competitive prices and participates in broader distribution, and backs them up with a successful advertising strategy.

A product, according to Kotler and Armstrong (2006), is something that can be sold to a consumer for interest, purchase, usage, or use that could satisfy a need or need. A company's product strategy relates to all of the goods and services it delivers to its target market in order to satisfy their needs. It often includes tangible products, services, information, places, organisations, or ideas that are available for purchase or consumption to satisfy a need or need. There are two types of goods: tangible and intangible products (Kotler 2013). As a result, the product is more than just a generic, ready-to-sell item. Its spectrum has been extended to include the product's services, rewards, and services. Packaging, brand marking, and characteristics of high-quality products, as well as style, features, and design, are all part of a brand strategy. The commodity also has a high degree of brand loyalty. Introduction, growth, maturity, and decline are the four stages of the product's life cycle. New product development leads to a broad range of products that influence customer attraction and retention. *Bixa Ollerana*

is a tropical plant grown for its natural food colorant which is the product of interest of this study.

The price can be defined as the actual or estimated value of a valuable commodity subject to exchange; alternate meanings include; the amount of money paid for the product (Kotler, Ang, Leong & Jan, 2005). Pricing, according to Jain (2004), is a process by which a company determines what it will receive in exchange for its product after taking into account the cost of production, market position, competition, market demand, and product quality. For this study, Bixa price is the value paid by the buyer in exchange for one kilogram of Bixa. The promotion, according to Zeithamlet, Valerie, Berry, Leonard, and Parasuraman (2005), was part of a wider initiative to convince customers to tell others about their services. According to Duncan (2005), marketing is the key to a market exchange process that communicates with current and prospective clients as well as the general public. According to Kotler (2007), promotions have become a critical component of the product marketing mix, which consists of a specific mixture of publicity, personal sales, sales promotion, public relations, and direct marketing techniques used by the company to achieve its advertising and marketing goals.

The aims of the promotions, according to Gupta (2007), are to attract new customers, keep current customers loyal, reward loyal customers, and expand the market by encouraging the use of the entire product category and improving other communication resources. Advertisements, product promotion, personal sales, public relations, and direct marketing are examples of promotion strategies used to promote organizational products (Czinkota & Ronkainen, 2004). Promotional strategies and bank performance have a good relationship, according to Abong and Odera (2012).

Placement is an important part of the marketing strategy mix because it guarantees commodity supply and availability in various export markets. These processes ensure that products manufactured in one country cross borders in order to access global markets, and that the process of selling them is effective. The findings of Louter, Ouwerkerk, and Bakker's (2008) meta-analysis indicate that this argument is correct to the extent that distribution strategy has a positive impact on firm performance in terms of export share of sales and profit level. Physical movement, storage, inventory possession, pre-sale purchases, post-sale operations; order processing, credit and collection; and other types of support activities are all examples of distribution networks (Gorchels, Marien & West, 2004). Schoviah (2012) showed that distribution marketing techniques increased sales, market share, and profits. In general, studies have found a connection between marketing mix strategies and sales performance; Nashwan (2015) discovered that distribution, advertisement, pricing, and product standardization and adaptation have an impact on a firm's revenue, customer, and financial performance.

Sales performance is a direct incentive that provides distributors or consumers with an additional value or encouragement for the product, with the primary goal of generating immediate sales (Zhang and Tang, 2010). The research's marketing strategy body is considered to have contributed to the degree to which the 4Ps marketing mix strategies affect the sales performance of Bixa Orellana by small-scale farmers in Kwale County, Kenya. The sales process refers to how the steps or acts required to sell a product or service are carried out (Eades, 2003). The sales pipeline depicts the stages of the sales process, during which sales activities generate a flow of sales opportunities (Miller, 2011).

Both behavioral and outcome evaluations have been incorporated into sales performance (Silva, 2006). Performance is the achievement of organizations in relation with its set objectives or goals. Turnover, return on investment, profitability, sales volume, market share, customer loyalty, and even the number of customers served can all be used to measure performance. The degree to which an individual's actual work is shown or the degree to which an individual's actual work is performed can also be described as performance (Cooper & Kleinschmidt, 2015). The key to sales performance is the creation of value that the consumer does not currently consider in their decision-making. The following sales performance metrics were evaluated in the study: Bixa sales volumes, revenue, customer loyalty and profitability by small scale farmers.

### **1.2.2 Regional Perspectives Marketing Mix Strategies and Sales Performance**

An effective marketing mix strategy, according to Aremu and Lawal (2012), should consider the market and its environment, customer buying conduct, competitive activities, and the needs and capabilities of marketing intermediaries. A marketing strategy, according to Mohamed et al. (2014), is an approach that allows an organization to concentrate its limited resources on the most promising sales opportunities. Companies, according to Palmer (2011), use a brand mix as part of their marketing strategy. According to Saguti (2015), the marketing mix is a method that businesses use to develop and improve their marketing activities. It is used to integrate different variables in order for the organization to achieve its objectives and satisfy the needs of its customers.

### **1.2.3 Marketing Mix Strategies and Sales Performance in Kenya**

Odhiambo (2013), investigated the effect of pricing as a competitive strategy on the sales performance of a group of pharmaceutical firms. Pricing strategy and decision have

been shown to have a significant effect on sales performance. Safaricom Ltd's marketing strategies were highlighted by Oluko, Anene, Kiara, Kathambi, and Mutulu (2014) as a vehicle for its impressive market share growth and overall telecommunications income in Kenya and East Africa. Safaricom was found to use a range of marketing mixes and procedures, including marketing auditing, new product creation, animation, pricing, and a place to boost Safaricom's supremacy over other telecommunications firms, according to the research. Weak marketing has hindered the growth of SMEs, according to Mbugua (2013), however most small business owners are uninterested in marketing because they rely on the quality of their products as a marketing tool. A point to note is; SMEs should be concerned about their current and potential customers because marketing strategies are important contributors to both growth and sales (Kiveu, 2013).

Mutambuki and Orwa (2014), found that product branding, sales promotion, and market positioning had a positive economic impact on commercial fish farming in their study. Long-term and short-term goals can also be set using the marketing mix. The marketing mix, according to Kiprotich (2012), is a set of marketing tactics that businesses combine to get the response they want from their target market. Product, price, place, and promotion are the four elements that make up the marketing mix. In relation to fixed revenue thresholds, sales performance refers to the amount of deals closed over a specific time period (Rotich, 2016). The achievement of more prominent sales execution, which has a direct effect on their key execution metrics, is the most critical feature of sales performance.

#### **1.2.4 Bixa Orellana**

Bixa Orellana is a shrub that grows 2-5 meters tall and can be cultivated from cuttings or seeds. For commercial development, a planting spacing of 5 meters by 4 meters is



recommended. It matures in 3-5 years and has a 20-year economic life cycle. It produces pods with about 30-50 seeds that contain red pigment when ripe and can be dried and used to produce food colorants. It is the world's second most effective natural colorant and the most commonly used in the Western world (Mercadante and Pfander, 1998).

The main product obtained from *Bixa orellana* is an organic dye contained in the seed coat, which is generally referred to as 'annatto' in English. Bixin, an apocarotenoid, is a chemical component of Annatto food color. It is widely used in the food industry to produce red to orange-yellow colors for cheese, butter, oils, margarine, ice cream, sweets, baked products, and rice due to its lipid solubility (Plant Resource for Tropical Africa, 2019). Its popularity in the dairy industry is due to its relative stability compared to other licensed synthetic materials, as well as its proven non-toxicity and vitamin A content. Annatto is used in Latin American cuisine not only to give meat, fish, and rice dishes a beautiful red color, but also to impart distinct flavors. It's used to make nail polish, hair oil, perfume, soap, and household items like floor wax, furniture polish, shoe polish, brass lacquer, and wood stain in the cosmetics industry (Plant Resource for Tropical Africa, 2019). The extent to which *Bixa* as a product is integrated in the 4Ps marketing Mix was the interest of the study.

At the turn of the 21<sup>st</sup> century, the annual global production of dried annatto seed was projected to be about 10,000 tons, with 7,000 tons entering international trade. Brazil is the world's largest producer of Annatto, but most of it is consumed domestically (Farmbiz Africa, 2019). Kenya exports about 1500 tons of annatto seed and extracts per year, with Peru being the leading exporter to Japan. Angola and Côte d'Ivoire are also exporters (Akshatha, Giridhar and Ravishankar, 2011). Smallholders grow *Bixa Orellana* in Kenya, especially in the coastal counties of Kwale, Kilifi, and Lamu. The 15,000 tons

of Bixa product exported by Kenya was important to the current study because product as an aspect of the 4Ps is one of the unit of analysis of the study.

*Bixa Orellana* was introduced as a cash crop for natural food colors in the Kenyan Coast in the 1970s, but its uptake by the farmers and consumers has not grown as expected and farmers in other parts of Kenya have not taken up its production. Despite favorable climatic conditions, income-generating potential, and rising foreign demand for natural food colors, this is the case (Muhindi, 2006). Kenya Bixa Ltd, Kenya's only Annatto processor buys bixa seeds and adds value to the production of Norbixin natural food color for export, according to Muhindi (2006), he further goes ahead to assert that 85.3 percent of local food industries import food colorants, with 62.5 percent using synthetic food colorants. Every company's marketing strategies and larger business decisions are constrained, driven, and influenced by regulatory powers (Kerin & Hartley, 2017).

Since the *Bixa Orellana* crop was only recently scheduled in Kenya, such regulatory powers have been limited (GoK, 2020). Cashew nuts, coconut, and sugar are among the main cash crops in Kwale that were scheduled several years ago with policy and regulations (GoK, 2013). The scheduling of a crop is done by an act of parliament and gazetted by the Cabinet Secretary of Agriculture and an act of Parliament, allowing the crop to receive government funding by budget allocation. This means that *Bixa Orellana* as a product has not received appropriate consideration in terms of the budget allocation for research, training, extension services, regulation or marketing.

### **1.2.5 Demand for Natural Food Colors**

Food colors are dyes or pigments that are added to food products and beverages to make them more appealing to consumers. Natural food colors and synthetic food colors are two types of food colors. Natural food colors are extracted from natural sources such as

vegetables and fruit, while synthetic food colors are generated by chemical processes, as the name implies. Bixa (annatto) colors are natural food colors that belong to the Carotenoids product group. Caramel, anthocyanins, paprika extract, spirulina, chlorophyll, betalains, and carmines are examples of other product types (Biego, Yao, Koffi, Ezoua & Kouadio, 2013).

Natural food colors are gaining market interest because of their natural origin, appealing to consumers who see them as a safe to use product. Natural colors minimize the risk of allergies and intolerance among consumers and are also free of genetically modified organisms (GMOs), (Accuray Research, 2015). Increasing consumer understanding of the adverse effects of artificial additives has resulted in increased demand for naturally colored bakery and pastry products (Venugopalan, Giridhar & Ravishankar, 2011). Accuracy Research (2019) further indicated that artificial food colours can increase hyperactivity in children and cause allergic reactions in sensitive individuals. Food color demand on the global market was 2400 MT in 2000, growing to 3000 MT by 2005, 8000 MT by 2010, and expected to rise to 56,000 MT by 2030 (FarmBiz Africa, 2019). The global natural food color market accounted for USD 1,140.42 Million in 2016 and is projected to reach USD 2,721.9 Million in 2025. Carotenoids, of which *Bixa Orellana* is a member, had a market value of US\$ 417.39 million in 2016 and is expected to rise to USD 925.47 million in 2025 (Accuray Research, 2019). The price projections of Bixa were important for the current study since price in the 4Ps marketing mix was one of the unit of analysis.

Since consumers prefer 'natural,' the food processing industry has significantly contributed to the increase in the natural color market (Coster, 2009). The use of colorants in food and beverage products has been restricted due to strict regulations

imposed by federal authorities in various countries. The FDA is the primary regulatory body for food additives in the United States. It regulates how colors are used in foods and beverages. Food coloring use and demand have been restricted as a result of these regulations. In the United Kingdom, for example, a resolution was passed to forbid the use of such food colorings. E110, E104, E122, E129, E103, and E124 are the six colors that are banned. This has had a huge impact on the use of food coloring in the UK and neighboring countries. The FDA's strict food safety guidelines, as well as the numerous regulatory bodies, are putting a damper on the industry (FDA, 2019). Bixa being a consumable natural food colour in various countries including USA and governed by many regulatory agencies is an indication of the place element of the 4Ps marketing mix which was also one of the units of analysis.

### **1.3 Statement of the Problem**

The demand for natural food colour continues to increase in the world market. The natural food colours market was valued at USD 1 billion in 2015 and is expected to reach USD 3.2 billion in 2027 (Farmbiz Africa, 2019). This is due to increasing consumer awareness regarding clean label products and the health hazards associated with synthetic food colors. Artificial food colours have been found to increase hyperactivity among young children and may cause allergic reactions among sensitive individuals compared to natural food colours (Accuracy Research, 2019). *Bixa Orellana* is a cash crop that has been grown in Kwale, Lamu and Kilifi counties of the Kenyan coast since the 1970s. The crop seeds are processed to produce *Bixa* (Annatto) natural food colours which have high demand in both local and international market. However, despite the potential contribution of *Bixa Orellana* to Kenya's economy and scheduling of the crop by the government (GoK, 2020), it has not yet been given sufficient attention in terms of policies that govern its production, processing and marketing. The sales performance of

the crop remain relatively low in Kenya despite its potential contribution towards increasing *Bixa* farmers' income. Unlike other cash crops, the marketing efforts of *Bixa* remains unstructured and have remained the obligation of small-scale farmers who produce the crop. It therefore remains unclear whether such efforts have influenced the sales performance of *Bixa Orellana*.

Previous studies have shown that an efficient marketing mix can build and boost revenue (Saguti, 2015) and the correct marketing mix can affect the achievement of organizational goals (Bintu, 2017; Muchoki, 2013; Lovelock, 2011). Other studies have looked at the relationship between marketing mix and sales performance; Kiprotich (2012) studied the influence of 4Ps marketing mix on sales performance of automotive fuels; Muthengi (2015) studied the impact of marketing strategies on sales performance of commercial banks in Kenya; Muchiri (2016) studied the effectiveness of marketing mix strategies for success of Kenol Kobil Limited; Muchohi (2015) has conducted a marketing mix strategy analysis of tennis related organizations and Obonyo (2013) studied marketing mix strategies for competitiveness of supermarkets in Kisii Town. Notably, these studies have not yet focused on the relationship between 4Ps marketing mix and sales performance of natural food colours in Kenya. To address this gap, the study investigated the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small-scale farmers in Kwale County, Kenya.

#### **1.4 Purpose of the Study**

The purpose of the study was to analyze the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

#### **1.5 Objectives of the Study**

This study was guided by the following specific objectives;

- i. Examine the influence of product strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.
- ii. Assess the influence of pricing strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.
- iii. Establish the influence of placement strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.
- iv. Examine the influence of promotion strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.
- v. Analyze the moderating influence of Government policy on *Bixa Orellana* value chain on the relationship between marketing mix strategies and sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

#### **1.6 Hypotheses of the Study**

The Hypotheses of the study included;

**H<sub>01</sub>:** Product strategy has no statistical significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

**H<sub>02</sub>:** Pricing strategy has no statistical significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

**H<sub>03</sub>:** Placement strategy has no statistical significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

**H<sub>04</sub>:** Promotion strategy has no statistical significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

**H<sub>05</sub>:** Government policy on *Bixa Orellana* value chain has no statistical significant moderating influence on the relationship between marketing mix strategies and sales performance.

### **1.7 Significance of the Study**

The study will inform the Government policy makers in formulating policies and regulations that will support the production and marketing of *Bixa Orellana* and enhance sales earning from the crop. Secondly, the results from the study would be useful to practice in enhancing the understanding of the impact of marketing mix strategies on the sales performance of small scale *Bixa Orellana* farmers in Kwale County, Kenya and develop successful marketing strategies to enhance sales earnings from the crop not only in Kwale County but Kenya in general. Third, the findings will also be useful to scholars as a basis to do further research on the influence of marketing strategies on the sales performance of *Bixa Orellana* because literature indicates very little research has been done in this area.

### **1.8 Scope of the Study**

The study covered the 4P marketing mix strategies (product, price, place and promotion) and sales performance (sales volume, customer loyalty, revenue and profitability) of *Bixa Orellana* (dependent variable). The study also examined the moderating effect of

government policy on the value chain of Bixa Orellana on the relationship between marketing mix strategies and sales performance. Geographically, the study was confined to Kwale County, the leading producer of Bixa Orellana in Kenya. The study covered 106 farmers selected by simple random sampling from the 2419 Bixa Orellana farmers registered with the Ministry of Agriculture in Kwale County, Kenya (MoA Annual Report, 2018). The study was conducted for a period of 3 months, from May to July 2019.

### **1.9 Limitations of the study**

The following limitation hampered the study from attaining its objective and testing the research hypotheses; the population of the study was selected from the Ministry of Agriculture (2018) Register of farmers who do bixa Farming. All the Bixa farmers may not have been registered. In certain cases, some respondents were apprehensive about the motive of the study which could have led to provision of information which is not reliable and thus negative impact on the quality of the data collected. The researcher overcame this by guaranteeing the Respondents that this research is strictly for academic purposes and that the information given will be handled with the utmost confidentiality and that their identity will be kept secret. They were not even asked to show their names in the questionnaire.

### **1.10 Assumptions of the Study**

The assumptions in the study were; that the respondents in the study understood the meaning and application of marketing mix, government policies and sales performance concepts in the research. That the sample size chosen for the analysis was acceptable and provided the useful details needed for the research. The respondents who participated in the study responded to the questionnaire in a truthful and frank manner.



## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This section reviewed literature related to the influence of marketing mix strategies on the sales performance of small scale Bixa Orellana farmers in Kwale County, Kenya. The study reviewed relevant theories informing the study, empirical review to lead to gap identification and conceptual framework.

#### **2.2 Theoretical Review**

Marketing is described as an organization's role in creating, communicating, and ensuring that it provides value to customers and manages customer relationships in a way that is beneficial to both the organization and its stakeholders (Walker, 2010). Scholars have looked into the theory of marketing, and the findings indicate that this concept is about providing products and services to customers based on their needs and wants, rather than attracting buyers willing to buy goods or services (Kasper, Helsdingen & Vries, 2012).

Today's marketing concept is based on a number of historical marketing patterns. The initial concept is production concept, in which production managers placed a greater emphasis on increased efficiency in production, low costs, and mass distribution (Palmer, 2011). Then there was the product principle, which claimed that consumers often prefer a product offering that is highly innovative (Lovelock, 2011). And there was the age of the sales concept. As a result of the intensified competition, businesses put a greater focus on selling their products to customers. Companies wanted to sell more than their competitors, so communications, advertisement, and branding became more important. Furthermore, the customer-centric marketing approach has taken hold. Its goal

is to recognize customer needs and produce products that meet those needs, resulting in a customer-oriented market. In the twenty-first century, a holistic marketing theory emerged, focusing on the formulation, design, and implementation of marketing strategies, processes, and activities that recognize their scope and interdependencies (Kotler, 2013).

Marketing is widely viewed as vital to a company's performance. This is the connection between the production and consumption of products and services. Marketing acts as a key link between a customer's needs and the services available to meet them. In the twenty-first century, research is needed to understand what customers want, produce products that customers want, market them competitively, and make it easier for people to buy. This involves the efficient planning and execution of product, service, and concept design, distribution, promotion, and pricing, as well as the creation of markets that meet the needs of individual consumers and organizational customers (Baker, 2012).

According to Drucker (2008), marketing is a critical component of any company's success, especially for small and medium-sized businesses in the apparel industry as well as large corporations. To put it another way, without advertisements, people would be unfamiliar with the goods on the market, particularly if they came from small clothing companies. Marketing is a management role that focuses on profitably identifying, anticipating, and meeting consumer needs (Moghaddan & Foroughi, 2012). One of the company's most critical priorities is to gain market share in order to extend the reach of its operations and increase profitability (Kotler & Armstrong, 2010; Smith, 1994).

Marketing is a process by which businesses create value for consumers and establish good customer relationships in order to obtain value from them (Kotler & Armstrong, 2010). Small and medium-sized clothing entrepreneurs in Harare are becoming more

popular and have more buyers as a result of this good business customer relationship. Unlike apparel stores that sell ready-made pieces, the bulk of their clothing is sewn to the customer's preferences and satisfaction in order to cultivate a close relationship. When done correctly, new customers are attracted by providing superior value, and existing customers are retained and increased by ensuring their satisfaction (Kotler & Armstrong, 2010).

Given Zimbabwe's challenging economic situation, marketing is a critical component for every business to succeed (Kotler & Armstrong, 2010). Attracting new customers and keeping current customers are the two main marketing techniques. They continue to argue that marketing strategies draw consumers and that when businesses take care of their customers, market share and sales improve. In the current dynamic business situation, McCarthy (2011) defines strategy as a direction and mechanism for an organization to achieve long-term goals by configuring its capital. Strategy, according to Nagle and Holden (2012), is a key concept in strategic management. Marketing strategy, according to Kerin and Hartley (2017), is the process by which a marketing objective is to be achieved, which is usually identified by a specific target market and a marketing plan to achieve it.

The primary aim of marketing strategy is to maximize sales and retain a long-term competitive advantage (Rotich, 2016). Marketing strategy covers all fundamental, short-term, and long-term marketing activities that include the analysis of a company's initial strategic position, as well as the growth, evaluation, and execution of market-oriented strategies, and thereby contribute to the organization's goals and marketing objectives. Since a company can develop and leverage its expertise in a market-specific way, a market penetration strategy is also known as a focused growth strategy (Ataman, 2010).

Companies are doing this so that they can broaden their client base. This is made possible by the scale of the purchase, the high risk of product obsolescence, the recruitment of potential product customers, advertisement and the availability of rewards.

Marketing strategy also contribute to research into priorities unique to the fashion industry, such as how to outperform competitors (Drucker, 2008; Easey, 1995). According to Easey (1995), marketing assists in supplying the additional knowledge and expertise needed to ensure that the creative element of the business is used to its maximum extent, enabling the organization to grow and develop. According to Easey (1995), marketing is relevant because it helps to reduce the number of business failures and uncertainty in the fashion industry.

A marketing strategy, according to Mohamed et al., (2014), is an approach that enables an organization to concentrate its limited resources on the most attractive sales opportunities. Sales performance is the sum of all the efforts required to deliver a product or service, and it is measured in terms of the number of goods produced and services rendered over a given time span. When used correctly, a variety of marketing strategies will elevate any small or medium-sized business from decent to excellent. Attracting and retaining customers is simple when you use effective marketing strategies (Flick, 2005).

According to Flick (2005), consumers and entrepreneurs gain a better understanding and exchange knowlege of what can be accomplished and what is needed. The advantage is that, unlike large clothing factories, small clothing businesses seldom have ready-made garments. Customers are encouraged to put in new designs; this is achieved by marketing that fosters a close relationship between small business owners and customers (Flick, 2005; Kotler & Armstrong, 2010). The marketing strategy, according to Brassington and

Pettitt (2000), is the direct way in which a business communicates its product or service to its target audience. Promotion is used in the healthcare industry in a number of ways (Meidan, 1996).

Advertisement, sales promotion, public relations, personal selling, and direct marketing are the five main elements defined by Brassington and Pettitt (2000). To keep up with industry trends, items on the market must be properly designed and manufactured (Jewell, 1990). Market research is vital because it assists in the perception of both the customer and the products (Strokes & Wendy, 2008). Market research tells advertisers who their customers are, how they shop, what they need from the product if there are market shortages, and what their competitors are up to (Gwin, 2009). The aim of product analysis is to improve or develop new products by focusing on the product.

The cost-leadership approach is often the best strategy to execute at a business because it offers the business economies of scale, access to capital due to low internal costs, and maximizes sales in comparison to rivals (Tribou, 2012). However, it is not always the best policy to pursue because economies of scale invariably lead to diseconomies of scale, resulting in a loss of income (Tribou, 2012). According to Mozer (2013), being a cost-leader does not generate a sustainable competitive advantage for a company if a number of companies in the sector will follow cost-leadership strategies, or if no firms face a cost disadvantage in imitating a cost-leadership strategy. The ability of a successful cost-leadership strategy to produce a sustained competitive advantage depends on the rarity and expense of imitating the strategy. Tribou (2012) added that cost-leadership can also lead to a decrease in organizational efficiency, which in turn leads to low revenues and low profits.

The marketing mix refers to the seven marketing variables that must be considered in order for the organization to function optimally. Place, price, promotion, physical evidence, people, product, and process are all part of the marketing mix (Flick, 2005; Kotler & Armstrong, 2010). According to Flick (2005), when it comes to apparel, marketers consider four "Ps": price, location, promotion, and product. The researcher used the 4Ps in this analysis, which is supported by Flick (2005). According to Kotler (2015) marketing mix strategies; product, price, location and promotion are techniques that organizations use to respond to the market and internal forces that will allow the company to achieve its objective.

According to Owomoyela, et al. (2013), marketing strategy is used by businesses to offer high-quality products to their target customers at a reasonable price, implement an effective pricing strategy, and engage with their distribution networks, resulting in increased demand for their products and improved performance. A company's marketing mix is a tactic for achieving a competitive advantage. The 4Ps that businesses use in their marketing strategies to achieve organizational goals and satisfy customers' needs and preferences are referred to as the marketing mix.

The American Marketing Association (AMA) describes the marketing mix as a mixture of controllable marketing variables (tactics) accessible to managers (AMA, 2010). A marketing mix model relates some measure of marketing success, such as revenue or market share, to variables that characterize the marketing mix of the brand or the product. The marketing mix strategies are rooted in these 4Ps, which describe the course of marketing activities to build a competitive advantage. The definition of a marketing mix strategy therefore includes a deliberate and careful selection of strategies and policies for the company Product, Price, Promotion and Location, as well as an

additional 3ps for services, namely People, Physical Evidence and Processes. All elements must be carefully chosen and mixed in the right proportions in order to improve the product or service and make it appealing to the consumer (Palma, 2011).

The marketing mix is a long-term action strategy that is used to help a business achieve its competitive edge over its rivals. The competitive advantage is permanent when rivals are unable to replicate their source of competition or when no other firm conceives a better offer (Baron, 2010). A study by Riordan *et al.*, (2012), argued that success is regarded as a multidimensional construct and that the degree of performance of the company varies on the basis of a variety of factors that characterize the industry. It has been suggested that the use of marketing mix techniques has been made in order to make marketing approaches more specifically linked to results. Saguti (2015) suggests that the marketing mix is a tool used by companies to build and enhance their marketing activities. It is used to incorporate various variables in such a way that the company is able to accomplish its goals and fulfill the needs of its customers.

Effective marketing mix strategies have resulted in dramatic improvements in company performance in a variety of ways, including increased sales volume, increased return on investment, and the retention of goodwill. This implies that effective marketing mix strategies improve competitiveness and market share. The effectiveness of marketing mix strategies has an effect on the degree of execution of strategies that affect firm success, according to a study by Kurtz and Boone (2011). According to the study, marketers' challenges stem from their failure to show the effectiveness of their marketing mix techniques. This makes it difficult to predict the changes taking place in the company's marketing situation and to assess the market as a whole.

One of the most popular ways for companies to raise awareness about their products or services is through marketing (Fuerderer, Herrmann & Wuebker, 2013). The marketing mix, which consists of four key components, is used to carry out marketing. According to Green, Whitten, and Inman (2014), it is critical to emphasize the importance of marketing campaigns to an organization's long-term success. The marketing mix is made up of 4Ps that assist managers in deciding the direction in which their marketing approach will be used to gain and sustain a competitive advantage (American Marketing Association, 2008).

In relation to fixed revenue thresholds, sales performance refers to the amount of deals closed over a set period of time (Rotich, 2016). The achievement of more prominent sales execution is the most critical aspect of sales pioneers' performance, as it directly affects their key execution metrics. Both results and behavioral evaluations have been factored into sales efficiency (Cavusgil & Zou, 2004). The execution of located sales representatives regularly saw sales results as proof of their behavioral success, indicating a positive relationship between the occupational association category of duty and sales performance. Companies that depend on faulty data to make critical sales decisions risk being labeled incompetent by their competitors in today's dynamic marketplace. When businesses take more idealistic approaches to opening production doors, deals staff are under more pressure to meet ever-higher revenue targets.

According to Salleh and Kamaruddin (2011), sales performance can be calculated through a sales volume analysis, a marketing cost analysis, and a profitability analysis that includes a comprehensive evaluation of the organization's revenues and losses on product lines, territories, and key customer accounts. The profitability analysis is a summary of the sales volume analysis and the marketing cost analysis. Marketing cost



research is a study of marketing costs to determine the effectiveness of various marketing goods.

When businesses become more optimistic about their prospects for success, the focus shifts to sales organizations to meet ever-higher revenue targets. Maximizing sales performance in the economy requires a more structured and data-driven approach to basic sales processes, such as strategic planning, land allocation, resource planning, and compensation programming to achieve these objectives. The degree of actual work performed by an individual or the degree to which actual work is demonstrated by an individual is referred to as performance (Cooper & Kleinschmidt, 2015). Tactical marketing strategies simply do not work in a world of increasing competition and fierce negotiation with consumer. The development of value that the customer is not actually considering in their decision-making process is the key to sales success.

## **2.3 Theoretical Framework**

The study used four theories as the basis of analyzing the influence of marketing mix strategies on sales performance of small scale *Bixa Ollerano* farmers in Kwale County, Kenya. The theories used include; Consumer Utility Theory, Theory of Pricing, AIDA Model and Distribution Channel Theory.

### **2.3.1 Consumer Utility Theory**

Consumer Utility Theory was developed by Fishburn in 1970. According to Market Utility Theory, consumers make sound decisions and achieve maximum economic satisfaction. Before buying items or brands on the market, customers looked for other goods and services. Consumers also want to make decisions that maximize satisfaction, which can be viewed as rational utility, according to this theory (Ahmed, 2014). The fact that consumers have different income levels means that they have different desires and

want to meet them in different ways. Owing to the value derived from their products, businesses selling both high and low quality goods often report higher profits.

When customers are concerned about the quality of products and services purchased, the theory goes on to explain that businesses are working to improve profitability and minimize spending by using different innovations and inventions. The definition, however, will not be implemented due to the low level of disposable income (Balbaki, 2012). Even in difficult economic times, according to Toit (2013), people adjust their purchasing decisions to fit their income levels. Consumers dislike cheap products because they associate them with poor and low quality. In the minds of consumers, expensive goods are priced and perceived as of high quality, while cheaper goods are associated with poorer quality (Martens & Hilbert, 2011).

Elena and Segev (2012) confirm that consumers tend to purchase only what they require in order to obtain the maximum benefit. Consumers remain loyal to companies that deliver high-quality goods and services, achieve industry standards, and meet or exceed expectations. Despite the extensive application of this theory to empirical studies; Mishra, Pallabi, Datta, and Biplab (2011); Srivastava and Gregory (2010); it is not clear how marketing mix strategies can influence the perception of *Bixa Orellana* customers to purchase from a specific source and hence increase the sales performance of *Bixa Orellana*. This theory was therefore used to examine the influence of product strategy on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. Particularly, the theory was the basis for the analysis of Bixa quality and packaging strategy in predicting the sales performance.

### **2.3.2 Theory of Pricing**

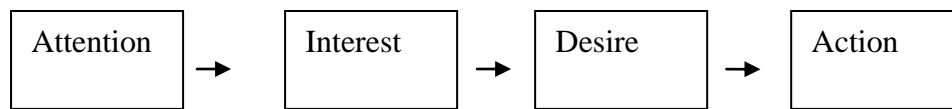
Marshall (1990), a key proponent of the Pricing Theory, argued that a market-price equilibrium can be calculated by the forces of demand and supply on the basis of a perfect market competition model assumption, based on classical and early neoclassical economic theory. Later, Clarke (1982) characterized price as the monetary value assigned to a good, service, or product. Small-scale farmers in Kwale County grow and supply Bixa seed on the supply side of the Bixa value chain, while processing firms and raw Bixa seed exporters on the demand side represent the market for Bixa seed in the side value chain of Bixa exports. The price of the Bixa seed is therefore at the point of intersection of supply and demand. This theory was therefore used to examine the influence of pricing strategy on the sales performance of Bixa Orellana among small scale farmers in Kwale County, Kenya. Particularly, the theory was used to evaluate entry pricing and competitive pricing strategy in predicting the sales performance, which was the second objective of the research.

### **2.3.3 AIDA Model**

The model was first proposed by Aaker and Joachimsthaler (2000). Throughout the purchase process, the AIDA model provides a comprehensive overview of how advertising affects customer behavior and purchasing decisions. It's an acronym that stands for emphasis, interest, encouragement, and action, all of which play a role in the relationship between consumer behavior and ads. The AIDA model is a proactive and straightforward approach (Aaker & Joachimsthaler, 2000). It takes you through the steps that lead to a sale and explains how personal sales work. The first element, interest, refers to the stage at which a brand attempts to catch the attention of a customer through advertising that it has come into contact with. It may be either positive or negative exposure, or even none at all, which is the worst case scenario. Only the first case, in

which the buyer pays positive attention to the advertising and eventually, to the brand, is beneficial from the advertiser's perspective (Kotler, 2007).

The principle of the AIDA model, Figure 1, considers the human user to be an individual that is immune to persuasion but vulnerable to the successive accretion of persuasive inputs (Hackley, 2009). This, he says, means that buyers are increasingly convinced to consider the sales message as their resistance is steadily being undermined by the build-up of messages.



**Figure 1: The A–I–D–A model of sales persuasion**

(Adapted from Hackley, 2009)

Organizations use ample means of communication to reach the mass market, creating attention, interest, desire, and attraction for their goods, thus growing demand for current and new products on the market. As a result, putting the firm principle into effect helps companies to expand exponentially in terms of customer base and revenue (Aaker & Joachimsthaler, 2000). Bixa seed is promoted by Bixa processors in Kwale County, Kenya, through extension services and public relations, the use of local FM radio stations, seedling supply, and contract farming. They all have three general stages in common, but the number and names of the substages can vary: cognitive (what the receiver knows or perceives), emotional (the receiver's feeling or emotional level), and behavioral (the consumer's action) (Aaker & Joachimsthaler, 2000). This model was used to examine the influence of promotional strategy on the sales performance of small-scale Bixa Orellana farmers in Kwale County, Kenya. Particularly, the theory was used to

analyze electronic, print and social media and public relations strategy in predicting the sales performance, which was the fourth objective of the research.

### **2.3.4 Distribution Channel Theory**

Bucklin (1966), a leading proponent of Distribution Channel Theory, suggests that distribution is traditionally the fourth component of the Marketing Mix. Before a commodity is purchased or used, it moves through distribution channels, which are intermediary entities or networks. Typically, such businesses specialize in marketing or distribution and depend on economies of scale to succeed. Companies differ in how they sell their products to the public, whether they are manufacturing or consumer goods. Others are heavily distributed (via a large number of intermediaries) while others are distributed exclusively (directly to the consumer).

The role of distribution, according to Bucklin (1966), is to provide a company with the task of delivering the product at the right time, place, and quantity at a low cost. Despite the fact that the distribution problem was one of the first problems studied by marketing researchers at the turn of the twentieth century (Bartlett, Kortlik, and Higgins, 2004), it continues to be a major topic in marketing literature and management. According to Stern and Reve (1980), channel theory can be divided into two types of approaches: economic and behavioral. Economic, analyzes the channel's performance first, looking at problems like channel design and function. The latter is sociologically oriented, focusing on power, cooperation, happiness, and conflict in communication networks.

The first decision defines the appropriate intermediary type, such as wholesaler, retailer, franchise, broker, or direct sales force (Iyanda, 1990). The second factor is the distribution scale, which refers to the number of intermediaries and levels of the channel structure to be used. The second strategic channel decision, distribution power, is a key

component of channel strategy (Iyanda, 1990, Fulmer, Gerhart, & Scott, 2003) and can define the entire channel structure, including the form of intermediary, customer scope, and delivery process (direct or indirect). Middlemen, wholesalers, and direct channels are used in the distribution of Bixa seed in Kwale County, Kenya.

Convenience goods need intensive distribution, while shopping goods require limited distribution, and specialty goods need exclusive distribution Bucklin (1966). Market goods and services that are purchased on a daily basis, easily, and with little effort are known as convenience items. Customers expend a considerable amount of time and money gathering knowledge and comparing various products while buying shopping goods. Specialty products are branded goods that have distinct characteristics or a distinct brand name for which a significant number of consumers are willing to go to extra lengths to purchase (Kotler, 2003). Consequently, Bixa seed is listed as a specialty product because of its particular demand on the international market. This theory was used to examine the influence of placement strategy on the sales performance of bixa Orellana among small scale farmers in Kwale County, Kenya. Particularly, the theory was used to examine direct and intensive distribution strategy in predicting the sales performance, which was the third objective of the research.

## **2.4 Empirical Review**

This section presents critical review of empirical literature related to the study variables including; product, pricing, placement and promotion strategies and sales sales performance.

### **2.4.1 Marketing Mix Strategies**

According to Palmer (2011), businesses are using marketing mix as part of their marketing strategy. Gronroos (2010) revised the 4Ps marketing mix to make it a 7Ps

marketing mix. Individuals, physical appearance, and the procedure were all involved. Managers may control the marketing mix, which is a mixture of strategies or variables. The marketing mix is made up of four components that assist managers in deciding the direction in which their marketing approach will be used to gain and sustain a competitive advantage (American Marketing Association, 2008). The influence of a service-based marketing mix strategy on revenue is addressed in greater depth in the following subsections.

Deb (2012), found that the most desired benefit for Indian customers' shopping preferences was hedonic value, followed by utilitarian value, in an analysis of consumer shopping preferences in India. The procedures and atmosphere are hedonistically dynamic and accommodating. Singh et al., (2012) investigated the factors that influence a shopper's willingness to visit and stay in a mall and discovered that five key characteristics were identified, each of which had an impact on the shopper's willingness to visit and stay in the mall. According to their research, the ambience, physical infrastructure, marketing focus, convenience and safety, had an impact on the mall's attractiveness and profitability.

According to Ahmed (2007), shopping is more than just an easy, dutiful acquisition of whatever is absolutely important to one's life. As a result, the preferences of shoppers have changed and can be characterized as more discerning, less loyal, more demanding, more interested in expressing their own lifestyle and personality through purchases (Howard, 2007). Thus, the mechanism implemented by the mall must be competitively friendly and accommodative to the needs of the shopper and competitively reflect the needs of the shoppers. Mwangi (2013) Marketing mix strategies and competitive advantage: a case study by Family Bank in Kenya, stresses that marketing is the

management process by which goods and services shift from concept to consumer. It necessitates the coordination of the four marketing mix elements. This involves the identification, selection, and development of a product, as well as the determination of its price, the selection of a distribution channel to match the customer's location, the development and implementation of a promotional plan, and a process that considers the staff's expertise and skills, as well as their excitement and dedication to promoting the brand. The marketing mix is therefore a blend of marketing strategies that a company undertakes in order to better satisfy the needs of its target market.

Competitive advantage, on the other hand, provides a corporation with a competitive advantage over its rivals as well as the ability to increase profits for the company and its shareholders. According to the findings, happy customers are excellent supporters of your company. Process is a marketing mix feature that looks at the systems used to deliver the service, according to Aghaie, Vahedi, Asadollahi, and Safari-Kahreh (2014). If the service is given correctly and on time, the brand's and company's reputations will be improved. As a result, a safe, correct, and timely service would provide a competitive advantage to a company.

Employee service and customer orientation behavior is positively related to service experience and performance, according to Jayawardhena and Farrell's (2011) research on the impact of retail employee conduct on customer service assessment. As a result, the human element of the retail mix is vital to service delivery efficiency. The role of intimacy in the service relationship was investigated. The degree of intimacy between service providers and customers, according to Beetles and Harris (2010), is critical to service delivery. In a study of marketing strategy practices in the Kenyan motor vehicle industry, Lutomia (2006) points out that people are a critical factor in the marketing



industry because customers make decisions based on how the company's employees treat them. This is due to the fact that people are one of the few service items that customers can see and interact with. According to the findings of the study, all automobile companies are planning marketing campaigns with a particular focus on their people. The hiring process has received a lot of attention from management. This is because the performance of the motor vehicle industry is very significant, centered on the sales staff and the customer service desk, which attracts and helps to maintain their customers.

Singh and Sahay (2012) looked into how shoppers perceive their shopping experience and discovered that it is made up of five factors: ambience, physical infrastructure, marketing emphasis, comfort, and safety and security. From the perspective of shoppers, comfort, entertainment, and variety, as well as the mall's nature, convenience, and luxury, are all significant attributes of shopping mall attractiveness. Comfort, entertainment, availability of international shops, product quality and price appropriateness, availability of after-sales facilities, convenience and entertainment in terms of advertisement campaigns were found to be attractive in El – Adly (2007) research on the attractiveness of shopping malls. These characteristics, in turn, affected the mall's overall sales and loyalty.

The physical evidence, according to Enache (2011), is all about the ambience, the layout, the design, the lighting effect, and the smell as one of the 7Ps of the marketing mix. Customers find it difficult to choose unfamiliar products in the service sector, and it can also be difficult or risky for retailers. This is due to the fact that they can easily buy an item only to be disappointed with the results of their purchase. Enache (2011) suggested that you can help your customers by allowing them to see the product before they buy it; this can be done by pictures or a video clip. Wymer (2011 ) claims that the hotel industry

advertises its goods and services using social media by using video clips and pictograms in an attempt to show those interested in what they would pay for. This is generally done to encourage them to come in and use their services. The current research used the 4Ps marketing mix techniques, which are practical tactics specific to product marketing compared to the last three, which are more specific to service-based marketing.

In the Nigerian metropolis of Kaduna, Ayedun et al. (2014) conducted research on the impact of marketing strategies on the corporate performance of estate surveying and valuation firms. According to the findings, there is a connection between the marketing strategies used and the corporate performance of the firms. The current study looked at the influence of the 4P's marketing strategies on sales performance, a gap in the literature that Ayedun et al. (2014) did not directly address but did assess marketing strategy in general. Aliata et al., (2012) conducted a study on the influence of promotional strategies on bank performance. The cost of advertising campaigns and bank results have been found to be positively related. Spending on promotional mixes individually had little effect on bank performance. Ataman (2010) investigated the long-term impact of marketing campaigns on brand sales. The study showed that the long-term effects of discounting are one-third the severity of the short-term effects, and the ratio is reversed from other aspects of the mix, highlighting the strategic importance of capital in brand sales. Epetimehin (2011) also published a study on the effects of relationship marketing on insurance company performance. The study's findings revealed that relationship marketing techniques have played a significant role in increasing insurance performance and customer satisfaction through service quality.

Keramati, Ardalan, and Ashtiani (2012) investigated the connection between the marketing mix and the sales performance of private Iranian steel companies. There was a

connection between the marketing mix and sales performance, according to the study. In Maiduguri Metropolitan, Borno State, Nigeria, Bintu (2017) investigated the impact of the Marketing Mix Approach on small-scale business success. Oktaviyanti, Mashuri, and Mulyo (2015) examined the "industrihilirtehwali" product's marketing mix and sales performance. Saguti (2015) looked into the impact of the marketing mix (4Ps) on Tigo Telecommunication Company's sales performance. Findings showed that the marketing mix has an effect on sales performance.

Muchohi (2015) conducted a study on marketing mix strategies used by tennis-related organizations to boost competition. The findings revealed that marketing mix strategies and competitiveness have a strong positive relationship. The research, however, obviously did not focus on the marketing strategies used by Bixa Orellana small-scale farmers in Kwale County, Kenya. Many studies have been conducted in other areas to determine the effect of the marketing mix strategies on sales performance, but none has been conducted on *Bixa Orellana* in Kenya.

#### **2.4.2 Product Strategy and Sales Performance**

In the local government of Oluyele, Ibadan, Nigeria, Adewale, Adesola, and Oyewale (2013) investigated the impact of marketing strategy on business performance in small and medium-sized enterprises. It was established that Product, price, location, packaging, and after-sales services all have an effect on business performance. The effect of product advertisement on consumer buying behavior was examined by Rizwan, Vishnu, Raheem, and Muhammad (2014). According to the results, product packaging has an effect on a customer's decision to buy. Customers consider packaging elements such as color, wrapper design, and packaging materials before purchasing a product, according to the findings. In Sahiwal, Pakistan; Saeed, Lodhi, Mukhtar, Hussain, Mahmood, and Ahm

(2013) investigated the impact of labeling on consumer purchasing decisions. Quantitative research was used. A survey was used to collect data. A total of 100 people were sampled for the study. Customer buying behavior has been shown to be influenced by brand labeling.

Gbolagade, Adesol, and Oyewale (2013) examined the influence of marketing strategy on business performance by interviewing small and medium-sized businesses (SMEs) in the Oluyole local government in Ibadan, Nigeria. It has been established that there is a significant link between product and business performance. The effect of marketing mix elements on consumer loyalty was investigated by Owomoyela, Oyeniyi, and Ola (2013). The results revealed that the product has an impact on consumer loyalty and thus enhances sales performance. Nirusa (2017) investigated the role of perceived product quality as a mediating factor. A survey of 105 businesses was conducted. It was revealed that there was a correlation between organizational capability and perceived product quality.

Edward (2013) investigated the impact of visual packaging design on perceived food product quality, value, and brand preference. It has been proven that customer perception of food product quality and brand preference is directly affected by attitudes toward visual packaging. Customers' reactions to new package design were analyzed by Holmes and Paswan (2012). Based on previous research, it is suggested that consumers' buying intentions are affected by a combination of product quality and price. Packaged items that are priced low receive less attentions than those with a higher price tag. Furthermore, research has shown that a customer's attitude toward product packaging and quality influences their decision to purchase low-cost products.

Deborah (2016) conducted a research on the effect of branding on organizational performance in the retailing of pharmaceutical products, as well as the role of customers as a mediating factor. Branding was discovered to have a significant positive effect on organizational performance. Kim, Kim, and Jeong (2003) examined the influence of consumer-based brand value on the financial performance of a business. Brand awareness, loyalty, and credibility have all been shown to have a significant positive effect on profitability, while brand quality has a negative impact. Kalemb (2015) investigated the role of branding in improving the performance of Rwanda's tourism sector. According to the findings, there is a relationship between branding and tourism performances in Rwanda. Wed (2016) studied the effect of brand identity on consumer loyalty and sales performance in local companies, finding that brand identity does have an impact on customer loyalty and sales performance.

Christian, Martin, and Jens (2010) examined the relationship between brand awareness and firm performance in business markets. Brand awareness was found to have a significant influence on business performance. Wang, Lee, Wu, and Chang (2012) investigated the effects of brand equity and awareness management on marketing performance. The survey of 291 respondents was compiled using convenience sampling. Brand equity has a positive and significant impact on marketing performance, according to the findings. Nigeria Breweries Plc conducted research on the impact of marketing mix elements on consumer loyalty: an empirical study by Owomoyela, Oyenyi, and Ola (2013). They recommended that Nigeria Breweries should produce superior goods, charge competitive prices, position appropriately, promote widely and provide customers with other distinctive functional benefits.

Kenya has also conducted marketing strategies and performance assessments. Mwai (2015) studied the factors that influence commercial banks' sales and marketing strategies. The study discovered that corporate strategy, organizational culture, target market behavior, and customer behavior all have a major influence on the bank's choice of sales and marketing strategies. Magunga (2010) also examined the effect of marketing strategies on insurance companies' performance in Kenya. The study discovered a positive relationship between product innovation as a marketing strategy and an organization's performance. Muthengi (2015) also did a study on the impact of marketing strategies on commercial bank sales performance in Kenya. The study's findings revealed that the marketing variables used were generally significant, but there was little impact when a marketing variable was compared to bank performance in isolation from other variables. There have therefore been few studies in Kenya on marketing mix strategies and their effect on the sales performance of *Bixa Orellana* among small scale farmers in Kenya which has been the main focus of the current research.

Regardless of whether a product is a new invention, an improvement of a familiar product, or a replication of a competitor product, Brassington and Pettitt (2016) conclude that it requires due consideration and planning to ensure that it meets the needs and wants of its customers; it should have a major competitive advantage; and it should be accepted on the market. According to Van Auken, Madrid-Guijarro, and Garcia-Perez-de-Lema (2015), creativity helps small and medium-sized businesses respond to market trends and sustain their competitive advantage. Customers' needs are identified and goods are developed to satisfy them or produce environmentally responsible goods that have less impact than rivals. This enhances the perceived quality of the company's products, market share and customer satisfaction..

In Nigeria's Akwa-Ibom State, Ebitu (2016) did a study on marketing strategies and business performance. The study was motivated by the fact that small and medium-sized businesses in Akwa Ibom State operate in a competitive environment and are unsure which marketing strategy would help them grow their business. The survey method was used in the study. Small and medium-sized businesses in the three State Senate districts were given 240 questionnaires. The study discovered that product quality strategy and partnership marketing strategy have a significant impact on profitability and increased market share of small and medium-sized businesses in Akwa Ibom State. According to the report, SMEs in Nigeria should invest more in product quality rather than advertising. This study was carried out in Naigeria as opposed to the current study which studied the influence of marketing mix strategies on sales performance of Bixa Orellana among small scale farmers in Kenya.

In the Mombasa District, Kisaka (2012) examined the relationship between marketing strategies and the success of savings and credit firms. To assess the impact of marketing strategies on SACCO results, the researchers used a descriptive research tool. The Chief Executive Officer, Marketing Manager, and Loan Manager / Administrator made up the target population. A census of 84 respondents was interviewed for this study. The study found a causal relationship between marketing strategies and SACCO performance. The majority of these businesses employ tactics such as product differentiation and niche marketing in order to be perceived as the most cost-effective in their markets. This study was conducted in service sector as opposed to the current study which was carried out in farm product sector.

In a study focusing on the Kariakor Market in Nairobi, Waithaka et al (2014) sought to evaluate the effect of marketing strategies on the growth of small businesses in Kenya.

The study discovered that use of various marketing strategies have an effect on the growth of small businesses. The study recognizes that word of mouth can only be effective if the product is of high quality and the customers are satisfied. According to Mohammad et al., (2012) customers often purchase goods after careful consideration and price-based comparison of various varieties; quality and design and thus the product's physical appearance and labeling details, may influence their decision to purchase. This study was carried out on small enterprises compared to the current study which was carried out in farming based sector

Product strategy is related to business performance, according to studies by (Kemppainen & Tinnilä, 2008; Owomoyela et al., 2013). The product's dimensions are an integral part of the marketing mix. Leonidou, Katsikeas, and Samiee (2002) conducted a meta-analysis of previous studies on marketing strategy. They synthesized empirical marketing strategy studies and concluded that product design, brand mix (name, logo, icon, style, warranty, customer service, and product advantages) were all variables in product marketing strategy. Brands built around functional customer needs (that is, associated characteristics are rational, instrumental, or utilitarian) and brands built around emotional customer needs (where the brand fulfills the consumer's need for self-enhancement, group membership, or ego identification) are categorized by John and Erling (2012). Product fitness was important in functional and mixed-brand concept-based alliances, but not in an alliance between two expressive brands, they discovered. Customers' perceptions of parent brand positioning strategies influenced co-branded goods, according to Singh, Kalafatis, and Ledden (2014); however, the different positioning strategies were not compared.



In a study to assess the effectiveness of methodologies aimed at improving the sustainability of quality seed production and supply, Guei, Barra and Silue (2011) investigated how smallholder seed enterprises could improve their capacity for rice, sorghum, maize and millet seed production. The study included the coordination and training of farmers' groups on technical aspects of seed production, such as the organisation of farmers into autonomous seed producer groups, the selection of seed production sites, crop management, weed control and crop protection. The goal of this training was to establish groups as business units in order to increase the multiplication and supply of good quality maize, sorghum, and millet varieties. The study concluded that good quality seed production necessitated a significant amount of financial and technical assistance, particularly in the early stages, and that it was critical to raise awareness and train seed producer organizations while forming partnerships among all stakeholders, producers, and local research and development agencies. This study was based on production strategies in cereal seed sector whereas the current study was based on product in the 4Ps marketing mix in food colour sector in Kenya.

Njoka (2012) examined the factors that influence consumers' supermarket choices in Nairobi, Kenya. Overall, the study found that product variety and proximity are the two most important factors affecting a customer's store choice. The research did not look at other aspects of the marketing mix's effects on store selection or the impact on outcomes.

Mburu (2012) went on to investigate the factors that influence the spread of exhibitions as a new form of retailing in Kenya. As the factors affecting the spread, the study did not focus on the marketing mix dimensions, and the case study used by one exhibition could be inconclusive as a result. Njuguna (2018) found that product strategy was the most important contributor to avocado export performance in Kenya in a more recent and in-depth study. Avocado export companies should invest in quality certifications and better

fruit selection before shipping the fruits, and then transport them to their destinations in ways that are environmentally friendly, leave their physical attributes desirable to their customers. Another suggestion was that the government invests in improving the entire supply chain in order to ensure a suitable yield of high-quality fruits. Price strategy was also found to boost export performance, especially when exporters ship their products off-season and command lower prices than during peak times. Place strategy boosts export efficiency because the more customers there are, the more merchandise is shipped per season. The newer methods of exporting that includes reefers help in increasing the quantities shipped to prime markets in Europe (Njuguna, 2018). The empirical reviews on product strategy and sales performance in this section were not conclusive on the degree to which the product mix strategy influences the sales performance of Bixa Orellana among small scale farmers in Kwale County, Kenya which the current study conclusively established and findings presented in Chapter four.

### **2.4.3 Pricing Strategy and Sales Performance**

A price is a monetary value given to a good or service. According to Foss (2012), effective product growth, delivery, and promotion, as well as an efficient pricing strategy, all contribute to a firm's performance. Critics claim that, while an effective pricing strategy cannot compensate for poor marketing, delivery, or product creation execution, ineffective pricing has a negative impact on a company's profitability (Palmer, 2011). A price is a monetary value given to a good or service. Despite the fact that effective pricing strategies cannot compensate for insufficient marketing, delivery, or product growth quality, critics claim that inadequate pricing has a negative influence on firm performance (Palmer, 2011).

According to Howard and James (2013), the company's penetration pricing strategy and business performance have a clear positive association. As is the case with Coke, the brand will tend to have a larger market share, more loyal consumers, and a technical advantage. Coke was the first to market, but thanks to strong management, it has now become the industry leader and is working toward achieving the Coca Cola marketing goals (Zhang and Hnatko, 2014). According to Cravens and Lane (2010), value-based pricing is the most effective pricing technique. Corporate profitability, according to Deonir, Gabriel, Evandro, and Fabia (2017), investigated pricing strategies and levels and their effect on corporate profitability. The use of value-based pricing has been shown to increase a company's performance.

Nagle and Singleton (2011) conducted a survey of 200 companies to determine the impact of pricing policies on company profitability. They discovered that businesses who use sophisticated value-driven pricing techniques gain 31% more operating profits than competitors who sell based on market share expectations or target margins. According to Vikas (2011), penetration pricing is the method of setting a lower price for new products or services hence breaking even. Companies may also use this approach to find a new market for an existing product. According to Jim (2012), penetration pricing is used to facilitate the introduction of a new product, and when a product enters a market with little product differentiation and where demand is price elastic.

In Kenya, Sije and Oloko (2013) investigated the penetration pricing strategy and productivity of small and medium-sized businesses. Employees from various small and medium-sized businesses were elected using stratified random sampling. To collect primary data, questionnaires were used. The findings were interpreted using descriptive and inferential statistics. It has been discovered that penetration pricing and performance

have a direct positive relationship. Perminus and Wilson (2017) investigated the effect of penetration pricing on insurance company profitability in Kenya. The target group consisted of 45 insurance firms. The research looked at data from 2008 to 2012. A sample of 900 workers was used in the analysis. Two staff from each insurance company were purposively sampled. Data was collected using questionnaires. The findings were interpreted using descriptive and inferential statistics. It has been discovered that penetration pricing and firm profitability have a positive relationship. This study was based on small and medium-sized enterprises in Kenya whereas the current study was based on price of the 4Ps marketing mix in the natural food colour sector in Kenya.

Njomo and Margaret (2016) researched market penetration strategies and organizational growth: a case of soft drinks. The approach used was stratified random sampling. A sample of 160 people was chosen using simple random sampling. The correlation was done to determine the relationship between variables. Penetration pricing has been found to have a negative impact on organizational growth. The application of penetration pricing would help in the growth of sales volume and market share. In addition, businesses are now using the penetration pricing strategy to promote complementary products (Njomo, 2016). Companies use penetration pricing tactics to price their goods or services below their usual price, according to Matan (2016). This helps a business to gain customer recognition, increase market share, or discourage new competition from entering the market.

Setting the price for an organization's product or service, according to Hilton (2011), is one of the most critical decisions a manager makes, as well as one of the most difficult, given the number of factors that must be weighed. Demand, competition, prices, as well as political, environmental, legal, and image-related considerations, all influence pricing

decisions. Horngren, Datar, and Rajan (2014) support this claim by stating that managers are constantly faced with crucial decisions about the price and profitability of their products. According to one survey, 78 percent of respondents classified pricing as "highly important" and ranked third most important marketing concern out of fifteen. Price cuts, according to Chen and McMillan (1992), had a higher probability of a competitive response, a shorter response time, and a higher likelihood of a reciprocal response than other competitive behaviour. When a new competition enters, incumbent companies drop their prices as well.

Andreas (2008) used a two-stage analytical approach to investigate customer value-based pricing strategies and why companies are avoiding them. Barriers to the implementation of a value-based pricing strategy have been identified as value assessment deficits, value engagement deficits, lack of effective market segmentation, sales force management deficits, and lack of senior management support. This study was based on value-based pricing strategies whereas the current study analyzed price as one of the 4Ps marketing mix strategy in natural food colour by small scale farmers in Kenya.

Obonyo (2013) also assessed the marketing mix strategies implemented for the competitiveness of supermarkets in Kisii City. This study was conducted in Kisii town Supermarkets (Kenya) using descriptive research and a sample of thirty (30) respondents from each Supermarket whereby twenty nine (29) respondents were customers and eight (8) consumer goods were selected randomly. Purposeful sampling was employed to identify one marketing manager from each Supermarket for they possessed vital information regarding formulation and implementation of marketing strategies and were interviewed using semi-structured questionnaire to provide in-depth information.

Questionnaires, interviews schedules and observation were used as instruments of data collection. The questionnaire was designed in such way as to enable the researcher to use both the closed and open ended questions to solicit ideas and answers related to the problem from respondents. Completed questionnaires were coded and analyzed and the data collected was classified both qualitatively and quantitatively. The results were presented in form of charts, tables, graphs. From the findings, location was identified as the strategy that yields greater returns as compared to other strategies. The study found that price control seldom attracts customers. However, it is not possible to evaluate the proportional degree of each technique to be used to optimize performance.

Companies must follow some kind of economic pricing strategy, according to Ekundayo (2012), in order to achieve specific objectives and within the framework of factors that influence pricing decisions. A construction company that focuses on a particular construction sector, for example, can do this by offering those jobs at a low cost. In times of economic crisis, according to Fellows and Langford (2000), businesses may use low-profit pricing to maintain market share or expand into new markets. Skitmore (2007) also looked at construction companies' economic-oriented pricing techniques, such as offering bid prices depending on what the market can bear.

A number of studies on pricing approaches have been conducted, each taking a different approach, using a different technique, and producing a variety of outcomes. The relationship between pricing strategies and pricing practices was illustrated by Paul and Ivo (2013) using a survey methodology and hypothesis testing of 95 respondents. Since price setting practices are used to enforce price strategies, the survey revealed that there is a correlation between price strategies and price setting. A study on new pricing strategies for industrial services and their background was also published by Kostis and

George (2011). A mail survey of 48 information technology companies and 129 transportation companies was used to collect data. The survey's first phase included 20 in-depth personal interviews, with the results indicating that penetration pricing and skimming prices were linked to the company's marketing and corporate strategy, as well as service characteristics, while market factors affected the acceptance of prices that were comparable to competitive prices. These studies did not analyze price in the context of the 4Ps and its influence on sales performance of natural food colour in Kenya which was the objective of the current study.

Various studies have revealed that price has a significant impact on consumer performance (Colpan, 2006; Owomoyela et al, 2013). According to Makgoe (2008), the SME's location can have a significant effect on costs. This is because the SME's position influences the transportation and distribution costs associated with supplying goods to consumers. As a result of the cost of distribution, small and medium-sized businesses' prices will be higher than what consumers can afford, which will have a negative effect on small and medium-sized businesses (Laljit, 2006).

According to Mwangulu (2014), when businesses try to promote short-term pricing tactics, revenues increase. According to Reece (2010), market penetration challenges arise because products are expensive to make, and providing the lowest rates would not result in significant profits. Furthermore, if a business keeps prices down for a long time and then raises them, customers are likely to shop around (Costas, 2010). He pointed out that a market penetration strategy may result in lower prices across the board, as rivals often try to match prices, particularly if their products are similar. To outperform the competition, the business that implemented a market penetration strategy would lower its prices even further. All competitors can soon be selling goods at such a low cost that

they barely make a profit. According to Keegan (2008), setting the lowest price in a market where prices are already low is usually unrealistic. He proposed that, since customers already trust a low-cost competitor, the new business should focus on carving out a niche for itself rather than competing on price. These studies were not based on pricing in the context of 4Ps marketing mix strategies which is the approach that the current study took.

In a study conducted in South Africa by Rogerson (2013), the price determines the total amount of profits received by the company. The only part of the marketing formula that creates revenue for the business is price, which is the value added to the product. Changing the price of a product in comparison to rivals' prices has a significant effect on marketing strategies because it influences demand for the product and, as a result, sales. As a result, the price should be equal to the other components of the marketing mix. Rogerson (2013) went on to say that, no matter how enticing a product's production and packaging are, demand would be poor if the prices are not competitive. Discounts, bonuses, payment lengths, and loan terms should all be considered far ahead of time. Miriam (2015) found that price strategy has a major positive relationship with avocado export performance in Kenya, based on local studies on the impact of marketing mix on export performance. Previous research by Lee and Griffith (2004), Kamboj et al. (2015), and Tan and Sousa (2015) showed that price strategies can lead to increased market shares and profit levels, and thus improved export performances.

From the foregoing empirical review on pricing strategy, definitive empiric findings on the degree to which the pricing mix strategy affects the sales performance of small-scale Bixa Orellana farmers in Kwale County, Kenya have not been identified, as determined by the current study and the results presented in Chapter Four.



#### **2.4.4 Placement Strategy and Sales Performance**

The approach taken by a company to bring products and services to different channels and networks with the aim of reaching the end consumer, either directly or indirectly is referred to as distribution strategy. Brokers, wholesalers, distributors, and even retailers would be among the intermediaries. These factors contribute to a company's ability to offer outstanding customer service and have an effect on customer satisfaction levels (Palmer, 2011). The user requires convenience, such as physical access, in order to use the product. The competitiveness of a company is determined by its distribution networks. This is because it has an effect on both the time the commodity reaches the market and the final price. The company can better understand sales channels through placement strategy, which involves enhanced awareness, better segmentation of sales channel delivery, the position of intermediaries in the sales process, understanding the centers of influence on the sales channel, and the location of the business in relation to the sales channel (Whetton, 2011).

Nashwan (2015) studied how the marketing strategy influences the productivity of a business. Distribution, marketing, pricing, and product standardization and adaptation all have an effect on a company's sales, customer, and financial performance, according to the findings. The distribution strategy, according to Louter, Ouwerkerk, and Bakker (1991), has a positive effect on the firm's results. In Pt. Varia Indah Paramitha Manado, Manado, Revino, Silvy, and Christoffel (2015) investigated the effects of distribution channel sales volume. The findings revealed that distribution networks had a significant and significant impact on sales volumes.

Schovich (2012) investigated the impact of marketing distribution channel strategies on a company's performance among Kenyan commercial banks. The analysis employed a

descriptive survey research design. The target population consisted of 43 Kenyan commercial banks. Marketing distribution techniques boosted revenue, market share, and profits, according to the findings. Ferri, Mohd, Radia, and Hamidreza (2012) investigated the effect of distribution channel innovation on Small and Medium Enterprise performance. The findings showed that assortment creativity, knowledge exchange, and transportation coordination all had positive and important effects on firm performance.

Laswai (2013) investigated the effectiveness of distribution model networks in increasing an organization's sales productivity. A total of 90 people were chosen for the study. Data was gathered through interviews, questionnaires, and documentary analysis. The distribution channel has a positive effect on sales performance, according to the findings. Bintu (2017) researched the effect of marketing mix strategy on the performance of small scale businesses in Maiduguri Metropolitan, Boron State Nigeria. It was discovered that marketing mix strategy; product, price, promotion, and place have a major influence on sales performance. This is the research void that the current study has filled by evaluating the effect of placement strategy on sales performance contrary to Bintu (2017) who examined the influence of marketing mix on business results which is broader.

In Nairobi County, Kenya, Chege, Muathe, and Thuo (2014) investigated the impact of marketing capacities and distribution methods on the performance of mobile service provider (MSP) intermediary organizations. A descriptor-explanatory cross-sectional research survey approach was used in this analysis. The target population was 397. For the selection of 219 respondents, stratified and simple random sampling was used. The primary data was obtained using a semi-structured questionnaire. It has been identified

that marketing capabilities and the choice of distribution strategy have a significant influence on performance. This study was in telecommunication sector whereas the current study was conducted in agriculture sector analyzing influence of marketing mix strategies on Bixa sales performance in Kenya.

Oladun (2012) investigated the performance of selected multinational corporations (MNCs) and domestic manufacturing firms in Nigeria using novel distribution strategies. Distribution strategies had a positive effect on performance, according to the findings. A cross-sectional analysis was carried out. 175 people were chosen using simple random sampling. Innovative delivery methods have a major effect on performance, according to the findings. However, according to Sin (2000), there is no significant relationship between company performance and distribution channels. This gray area was the motivation of the current study in establishing whether there is any relation between marketing mix strategy and sales performance of Bixa Orellana among small scale farmers in Kenya.

The geographical location, ownership, and profitability of Washington log trucking companies were studied by Nguyen, McCracken, Casavant, and Jessup (2011). Data from a systematic log trucking survey conducted in 2007 was used in the analysis. The results revealed that ownership and geographic location have a significant influence on the profitability of the log trucking industry. Furthermore, businesses grouped in clusters to form focal points will achieve higher productivity and thus be more profitable than isolated business entities (Nguyen, McCracken, Casavant & Jessup, 2011). Delgado (2014) maintains that the geographical cluster affects the growth of a company.

Eze, Benedic, and Juliet (2015) investigated the connection between a company's location and customer patronage. The survey design was used in the study. A total of 100

respondents were surveyed. A structured questionnaire was used to collect data. The findings revealed that a company's location has a significant effect on its performance. The study concluded that the company's proximity to its customers had an effect on repurchase. Barnard, Kritzing, and Krüger (2011) conducted a study on how to improve business performance by using location decision-making techniques. The research focused on small and medium-sized companies in the Nelson Mandela metropolis. Convenience sampling was used to identify 175 small and medium-sized businesses. Questionnaires have been used to gather primary data. Findings showed a positive relationship between location and business performance. These studies were on correlation between business location and customers' patronage in improving business performance compared to the current study which specifically specialized on marketing mix strategies and sales performance of Bixa Orellana among small scale farmers in Kenya.

The key challenges that medium-sized enterprises face are market penetration and potential competitiveness. Small and medium-sized enterprises that choose to grow into new markets face tough choices when it comes to governance models. The competitive environment in which retailers operate has a big influence on how retailing evolves in terms of its structure, quality, and location. This environment combines social, economic, technological, and political factors to build a culture that retailers are responding to by managerial decisions. Due to the cost of delivering products and services to consumers, the firm's location in relation to its target market would have an effect on its production (Cavusgil & Zou, 2014). It is important for a medium-sized business to choose a location that will provide cost-effective service to its customers in order to reduce overhead costs. The empiric analyses of the Placement Strategy and Sales Performance in this section were not definitive on the degree to which the

Placement Mix Strategy influences the sales performance of Bixa Orellana among small scale farmers in Kwale, Kenya, which was established in the current study and the findings reported in chapter four.

#### **2.4.5 Promotion Strategy and Sales Performance**

A core component of the marketing mix approach is the promotion and communication strategy. It helps businesses to connect with customers about their products or services. Personal selling, sales promotion, advertising, public relations, and direct marketing are all components of promotion strategy. These elements have an impact on the relationship between the customer and the business, which is critical for improving product or service sales (Lehtinen, 2011). Integrated Marketing Communication (IMC) entails combining all promotional elements into one cohesive picture. This is to ensure that all marketing messages deliver a coherent message. The promotional mix defines how much attention each of the five subcategories should get, as well as how much money should be allocated to each. Among other marketing objectives, the product life cycle determines the extent to which these elements are used. Kurtz and Boone (2011) discussed advertising and considered it to be a critical factor for businesses in all industries. One of the reasons for this is that effective advertising enables businesses to attract and retain customers in today's rapidly changing market environment. Furthermore, according to Lehtinen (2011)'s research, 50% of consumers remember seeing or hearing a firm's commercial.

A company's direct approach to reaching out to its publics is referred to as a promotion strategy. Promotion strategy has remained a critical way firms gain a competitive edge in the market. Advertisement, sales promotion, personal sales, public relations, and direct marketing are the five elements of the promotion mix used in the promotion strategy

(Czinkota and Ronkainen, 2004). Companies are forced to adopt effective promotional campaigns to promote growth beyond borders, thereby creating awareness and increasing the rate of use of their products and services, in order to keep up with competition and changing consumer needs and preferences. Promotional campaigns assist businesses in attracting and retaining customers, resulting in increased return on investment due to a larger consumer base (Kotler, 2007).

The effect of promotion on perceived quality and repurchase intentions was examined by Hamed and Farideddin (2016). A descriptive survey methodology was used in the analysis. A simple random sampling was used to choose a group of 230 coffee shop patrons from five different districts in Isfahan. Price advertising has been shown to have a significant impact on the perceived quality of a product or service. The effect of price promotion strategies on manufacturing sales performance was studied by Bingqun, Kejia, and Tingju (2016). Pricing promotion tactics have an effect on sales performance, according to the findings. These studies were conducted in fast moving commodity and manufacturing sector whereas the current study was carried out in Bixa natural food color sector in Kenya.

Osman, Chan, and Foon (2011) studied the simulation of sales promotions aimed at influencing university students' purchasing decisions. A total of 150 respondents were sampled for the study. Systematic Random sampling was used. Self-administered questionnaires were used to collect data. There was a significant relationship between attitudes toward price discount coupons, free samples, and 'buy-one-get-one-free' with buying behavior, according to the findings. Ahmad, Al-Qarni, Alsharqi, Qalai, and Kadi (2013) investigated the impact of the marketing mix strategy on hospitals performance as assessed by patient satisfaction: an empirical investigation from the perspective of

Jeddah's private hospital senior management. The studies revealed that Promotion has a significant effect on performance, while pricing and distribution methods have insignificant impact. These studies were conducted among students and hospitals which are basically service sector as opposed to the current study conducted in natural food colour, which is agriculture based product sector in Kenya.

In his analysis of the efficacy of sales promotion mix approaches in local pharmaceutical manufacturing companies in Kenya, Kamba (2010) found that Marketing managers have been shown to be able to determine what combination of promotion mix would result in effective promotion programs and thus increased sales. Aliata, Odondo, Aila, Ojera, Abong and Odera (2012), conducted research on the influence of promotional strategies on banks performance. It was revealed that there was a positive relationship between promotional strategies and bank performance. However, according to Oyewale (2013)'s research on the influence of marketing campaigns on business performance, promotion has no significant positive impact on business performance. These studies were conducted in pharmaceutical and banking sectors which are also service sector as opposed to the current study conducted in natural food colour, which is agriculture based product sector in Kenya.

Sales promotion has been shown to have a positive impact on organizational performance according to research conducted by Tandoh and Sarpong (2015) on the effects of sales promotion on the performance of Auto-Mobile Industries in Ghana. Dangaiso (2014) conducted a study on the effect of sales promotion strategies on the performance of Ghana's Auto-Mobile Sectors, findings revealed that using sales promotion practices like discounts, price and competition sweepstakes had a positive impact on the sector's performance. These studies were conducted in the auto-mobile

sector which is basically service sector as opposed to the current study conducted in natural food colour, which is agriculture based product sector in Kenya.

In their research on the effects of sales promotion as a method on organizational performance, Ibojo and Ogunsiji (2011) found that sales promotion had a positive influence on the organization's organizational performance and sales volume. Syeda, Zehra and Sadia (2011) have shown, in their research on the effects of sales promotion on the profitability and perception of consumers in Pakistan, that sales promotion has a positive effect on brand loyalty and thus increases organizational profitability. The impact of sales promotions on sales turnover in the Nigerian airline industry was studied by Adeniran, Egwuonwu, and Egwuonwu (2016). Sales promotions incentives and bonuses have been shown to have a positive significant impact on sales turnover in the airline industry. Osogbo (2014) investigated the impact of advertisements on organizational profitability. The findings revealed that advertising has an effect on a company's long-term profitability. Sales promotion has been discovered to have an effect on an organization's operational performance and sales volume.

In the Nigerian bottling firm Plcakanbi, Akanbi and Adeyeye (2011) investigated the relationship between advertising and sales volumes. It was identified that advertisements have a substantial effect on a company's sales. Agbeja, Adelokun and Akinyemi (2015) conducted an analysis of the effect of advertising on sales and profitability of the company, which found that there was a significant correlation between advertisement and profitability. Gan (2010) conducted an empiric research study: advertising effect on firm performance in the Malaysian consumer product industry. It has been proven that there is a positive relationship between advertisement and firm performance. These studies were conducted among fast moving consumer goods sector as opposed to the



current study conducted in natural food colour, which is agriculture based product sector in Kenya.

Dauda (2015) investigated the impact of advertising on sales revenue and profitability of a number of Nigerian food and beverage companies. It has been established that advertising and firm profitability have a positive and significant relationship. However, the analysis also discovered that there was no statistically significant connection between advertisement costs and sales revenues. It was proposed that the company should not only rely on advertisement to raise sales revenue and profits, but also use sales promotion, personal selling, and publicity, among other items. Jebungei (2014) analyzed the effects of advertising on the performance of Kenyan cosmetic manufacturing companies. The findings showed that the company would raise awareness and appeal by using advertising. Furthermore, product performance is influenced by advertising. It helps a company to increase revenue and profits. Liban (2015) looked into the effect of advertisement on telecommunications company sales in Somalia and discovered that advertising had a substantial influence on sales volumes.

The effect of advertisement and sales promotion costs on the sales performance of Indian telecommunication companies was examined by Joshi, Prabhu, and Chirputkar (2016). In terms of sales performance, it has been discovered that advertisement and sales promotion have a significant positive relationship. Nana, Gloria, and Kwamena (2011) investigated the impact of marketing communications on Ghana Telecom's sales performance (Vodafone, Ghana). Findings revealed that there was a strong relationship between sales promotion, advertising budgets and total sales. These studies were conducted among telecommunication sector which are basically service sector as

opposed to the current study conducted in natural food colour, which is agriculture based product sector in Kenya.

At the Kenya Post Office Savings Bank, Afande (2015) investigated the impact of promotional mix elements on the sales volume of financial institutions in Kenya. Sales promotion was found to have the greatest impact on sales volume, followed by personal selling, public relations, and direct marketing, all of which had the least impact on sales performance. Cheruiyot and Peter (2016) investigated the Kenya Post and Savings Bank's Integrated Marketing Communications and Performance. The study relied on descriptive research with a total of 80 respondents chosen using a stratified random sampling technique. Questionnaires were used to collect data. Findings revealed that direct marketing, advertising, personal selling, sales promotion and public relations enhance the company's performance by enhancing customer engagement, customer loyalty, revenue rate, branch growth, and educating consumers. These studies were conducted among finance and communication sectors which are also service sector as opposed to the current study conducted in natural food colour, which is agriculture based product sector in Kenya.

Njawa (2015) examined the effect of advertisements on the operational performance of TIGO Telecommunication Network Junior. Staff who worked with Tigo employees made up the sample population. Data was gathered through questionnaires, interviews, and a documentary review. Organizational performance has been shown to be significantly influenced by brand awareness, brand loyalty, and brand value. The strategic role of branding in organizational sales performance was investigated by Omotayo and Adegbuyi (2015). The research took the form of a survey. A total of 150 respondents were surveyed using standardized questionnaires. Findings revealed that

branding has a major influence on sales performance. Festus (2016) conducted a case study on the effects of sales promotion on Guinness Ghana Breweries Limited's organizational performance. It has been discovered that sales promotion and performance have a strong and significant relationship. Syeda, Zehra, and Sadia (2011) found that sales promotion has a positive impact on brand loyalty and thus increases organizational profitability in their analysis of the effect of sales promotion on the profitability and perception of consumers in Pakistan.

Sales promotion was studied by Amusat and Ajiboye (2013) as a predictor of sales volumes. A survey of 80 respondents was chosen using simple random sampling. Structured questionnaires were used to collect data. Sales marketing strategies such as discounts, coupons, free samples, price promotion, and promotions have been discovered to have an effect on sales volume. Mukorombindo (2014) investigated the impact of direct marketing on the sales performance at seed potato cooperative. The findings showed that direct marketing and sales performance have a weak relationship. This is due to a lack of a structured marketing strategy, a lack of a consumer database and a lack of marketing budget and poor communication. It was proposed that the company use a range of direct marketing strategies.

According to Van Scheers and Radipere (2014), advertising has evolved as a means of promoting and distinguishing small and medium-sized businesses from their competitors. Most small businesses, according to Clow and Barack (2014), lack the financial resources to send a marketing message to millions of potential customers. An organization, after developing a product, setting the best market price and identifying an appropriate channel for distribution must promote it to potential consumers. It is important for an entrepreneur to remind potential buyers of the

product's availability or to educate consumers using promotional media such as radio, print or television. The entrepreneur must carefully evaluate each alternative medium, weighing not only the costs but also the method's effectiveness in achieving the defined goals. According to Carson and Gilmore (2015), the biggest impediment that many smaller businesses face is a lack of promotional efforts to help them compete with larger corporations. Creating a business network with other companies is one way to address this obstacle. If an organization creates a marketing campaign, each customer or prospect may be able to tell other potential customers about the company's product. The organization can exploit eco-friendly promotion techniques through the use of the internet instead of print media. In addition, it is important to be straightforward so that consumers can easily find out if the information presented is right.

Ramsey (2012) conducted a survey of SME marketing strategies to assess the effects of Internet-based technologies (IBTs) on small and medium-sized enterprises (SMEs) in Ireland's client relationship management (CRM) activities. A mixed-methods approach was used, which included an online questionnaire, qualitative in-depth interviews, and projective techniques. Customer interaction and customer knowledge management were established as key areas of e-CRM in small and medium-sized enterprises after factor analysis was performed on 286 respondents. Findings have shown that to varying degrees, Small and medium-sized companies have introduced relatively simple IBTs to improve customer experience and knowledge management capabilities and create competitive advantages through e-CRM. Small and medium-sized companies find the networking aspect of e-CRM easier, but are struggling to integrate consumer awareness into their decision-making. Promotion is one of the key marketing mix components that has been examined by several researchers. The goal of their evaluation was to confirm

whether there is some correlation between promotion and market share and to decide if the proper promotion will increase profit and sales. This study was conducted among SMEs as opposed to the current study conducted among small scale Bixa farmers in Kenya analyzing influence of promotion strategy on sales performance.

Onditi's(2012) research on the assessment of promotional elements that trigger organization sales; a case study of agricultural and non-agricultural products. Two hundred and four groups of women from the Homa Bay Area, south of Kisumu City, participated in the survey. These companies make both agricultural and non-agricultural products. Using a simple random sampling method, a group of sixty-six women from each of these groups was chosen. In contrast to other promotional components, the study found that sales promotion and personal selling are the most significant promotional factors in increasing product sales. According to the report, most women's organizations predominantly use sales promotion, but they face a cost challenge due to a shortage of promotion funding. The study's limitation was the respondents' accessibility due to the study area's remoteness; the study's research weakness was that it ignored the effects of other factors that could influence small-scale business performance, and that further research on other aspects of small-scale business promotion should be done. The current study was carried generally among agricultural and non-agricultural firms as opposed to the current study carried out specifically among Small Scale Bixa Farmers in Kwale County, Kenya.

Hosseini and Navaie (2011) used questionnaires to survey 384 women who had used Atousa hair color products at least once to see how the promotion mix affected the sale of cosmetics and beauty products. Questions about the impact of marketing mix methods on revenue growth were included in the questionnaires. The results of the one-sample T-

test on study hypotheses revealed that product promotion, advertising, and personal selling were the most important factors in increasing sales, whereas direct marketing had a smaller effect. Limitation of the study was reluctance on the part of the respondents to answer questions, and the study did not examine all marketing communication mix, such as advertisements, and recommended more studies to be done on the role of marketing mix in-product sales. This study was carried out among cosmetics and beauty products firms as opposed to the current study carried out in the natural food color sector in Kenya which was the literature gap whose results are presented in chapter four.

The influence of social media on traditional marketing was investigated by Nekatibeb (2012). According to the results, social networking has given people the ability to communicate easily and effectively in a way that is unparalleled by any other medium that can be considered a modern-day communication tool. Tuten (2008) goes on to say that social media marketing is a form of online advertisement that focuses on social groups and social networks, and that most businesses have realized the power of social media marketing to reach a larger audience as a result of the high growth rate of social groups. By offering a two-way communication platform, online communities bridged the connectivity gap between brands and consumers. By entering the social media discussion, businesses have been able to better communicate with their consumers (Bacik, Fedorko & Simova, 2012). These two studies specialized on social media marketing whereas the current study analyzed promotion as one of the 4Ps marketing mix influence on sales performance of Bixa Orellana among small scale farmers in Kenya.

The traditional one-to-many method of sending marketing messages to potential customers, according to Gillin (2010), is no longer adequate and should be replaced by

digital communication media to achieve the most effective and competitive interaction. According to Gillin (2010), social media has given millions of ordinary Internet users a voice, allowing them to communicate their views and opinions to a global audience at little or no cost. Social networking has grown from peer-to-peer connections to a viable relationship-building platform for companies of all sizes, thanks to common sites like Facebook, Twitter, Pinterest, LinkedIn, and YouTube (Mrayati, 2014).

Marketers can now use email, online surveys, and chat rooms to track website visits and define and meet customer needs and desires. Businesses can use the Internet to get immediate and impulsive responses from customers via online marketing surveys and polls, as well as via email (Sashi, 2012). Nyawira (2012) conducted research at Safaricom Limited on the effect of social media on customer service. The results indicate that social media improves efficiency and creative tactics for increasing consumer recognition and brand stickiness for Safaricom brand. The study also shows that social media advertisement has become a cheaper and more effective form of advertising compared to conventional advertising platforms. The empirical results of the Placement Strategy and Sales Performance were not definitive and, thus, the current study concluded the degree to which the promotion mix strategy influences the sales performance of Bixa Orellana among small-scale farmers in Kwale, County, Kenya and the findings presented in Chapter Four.

#### **2.4.6 Sales Performance**

Sales performance relates to the number of deals made over a predefined span in contrast with predetermined sales levels (Siegler, 2010). The achievement of more notable sales execution is the most significant aspect of sales pioneers' success, as it directly affects their main execution metrics. Both outcomes and behavioral

measurements have been integrated into sales performance (Silva, 2006). Siva (2006) further noted that sales results have dependably been seen by execution situated sales representatives as proof to their behavioral execution and therefore a positive relationship has been found to exist between occupation responsibility segment and sales performance segment.

According to O'Sullivan and Abela, sales performance is an estimate of the sales quantity generated by individual sales representatives' business activities (2007). Meanwhile, performance refers to the process of completing a task that can be used to assess marketing efforts (Bonoma, 2012; Franco-Santos et al., 2007). Key performance metrics are used by Multiple organizations to evaluate their target objectives and goals. Key performance indicators (KPIs) are metrics that are used to assess and calculate sales performance in order to make revenue generation more predictable and repeatable (Bonoma, 2012). Several KPIs are used to determine sales efficiency, including income, contact rate, lead response time, follow-up contact, and the opportunity-to-win ratio. In his analysis of the effects of marketing campaigns on commercial bank sales performance in Kenya, Muthengi (2015) indicated that the type of advertisement campaign used had a direct impact on the company's sales volume. The current study looked at the influence of marketing mix strategies on sales performance rather than the broader marketing strategy used in the previous study (Muthengi, 2015).

The influence of marketing strategy on sales performance: The moderating effect of the internal and external environment was examined by Amirhosein and Zohre (2013). The marketing strategy has been discovered to have a strong and important association with sales performance. In Iran, Haghghinasab, Sattari, Ebrahim, and Roghanian (2013) researched the identification of innovative marketing methods to increase the



performance of small and medium-sized companies. Creative marketing tactics, such as product, price, place, and promotion, have been shown to affect sales performance. The sales performance reviews did not examine the effect of the marketing mix strategies on the sales performance of *Bixa Orellana* among Small Scale Farmers in Kwale County studied in the current study and presented the findings in chapter four.

#### **2.4.7 Government Policy on Bixa Orellana**

Every company's marketing and larger business decisions are constrained, driven, and influenced by regulatory powers. The majority of the state's legislation is the result of a vigorous legislative process. Kenyan agricultural policy, post-independence, focused on three main areas: land transfer programmes, smallholder growth and the promotion of cash crops by smallholders and large-scale farmers (Jabara, 1985). In 2003, the Kenyan government launched an Economic Recovery Strategy (ERS) for the development of wealth that recognized the revival of agricultural institutions and investment in agricultural research, expansion and marketing is crucial to sustainable economic growth. A revitalisation plan for agriculture (SRA) was initiated in 2004 as a follow-up to the ERS.

In order to achieve the vision, the SRA also issued policy guidance and actions for the agricultural subsector. The SRA was followed by Vision 2030, a new long-term development strategy for the nation that was launched in 2008. The agricultural sector is considered critical in delivering the 2030 vision economic cornerstone, where smallholder agriculture will be transformed from subsistence to advanced, commercially-oriented, and modern agriculture, according to the 2030 vision (GoK, 2010). Hafezalkotob (2015) investigated the complex pricing model in two green and non-green supply chains, accounting for the government's environmental and revenue-generating

policies. In order to achieve the goals of sustainable growth, he concluded that the government should synchronize supply chains with the appropriate tariff mechanism.

According to Kiveu (2017), an enterprise's innovative activities and the nature of its innovation are influenced by the type of connections it has with sources of information, expertise, technologies, and resources. Innovating businesses are connected to other players in the innovation environment, such as policymakers and makers, competitors, suppliers, and consumers. This can be accomplished by collaborative creativity, such as joint development of new technology, products, or services, strategic marketing partnerships, or joint development of new marketing ideas. Although the idea is strategic marketing alliance which can possibly incorporate the 4Ps marketing mix strategies, this study was not conducted among Small Scale *Bixa Orellana* farmers, a research gap filled by the current study whose results are discussed in chapter four.

Mayaka (2013) found that policymakers can better develop social safety net initiatives like cash transfers and food vouchers for the poor, which are crucial interventions in reducing food insecurity, if they have awareness of market integration and price transmission. These programs are primarily dependent on whether or not the markets where beneficiaries live are incorporated, giving them an opportunity to grow food locally because they know there will be markets. Government policies concerning marketing mix and sales performance have undergone limited empirical study. Specifically, therefore, there is little empiric analysis that examined the moderating effect of the Government's *Bixa Orellana* Value Chain policy on the relationship between the marketing mix strategies and the sales performance studied in the current study and presented the findings in chapter four. Farm management, market conditions, investment climate, government policies, and cost factors, according to Njoroge (2012), are the key

factors influencing success in horticulture farming. Despite the fact that this study cited market factors policy as one of the factors influencing horticulture farming support, it did not address the government's Bixa Orellana Value Chain policy, which was the moderating variable in the current study and the findings presented in chapter four.

Gicheha (2013) found that macroeconomic and trade policy initiatives have failed to stimulate market participation by smallholder farmers, as well as agricultural and rural transformations. In order for farmer marketing groups to achieve their full potential, institutional funding must be increased. This involves improving leadership and management skills, as well as learning about new emerging markets and business requirements. This may include, for example, looking at ways to increase farmers' access to better prices. Contract farming which was missing in IC markets can be explored to see how it can help to ameliorate the problem. Macro and trade policy in this study did not look at the moderating effect of the Government's Bixa Orellana Value Chain policy on the relationship between the marketing mix strategies and the sales performance studied in the current study and presented the findings in chapter four.

## 2.5 Knowledge Gap

**Table 1: Knowledge Gap**

Objective	Empirical Review	Knowledge Gap
Extent to which product strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers	Edward (2013) established that attitudes toward visual packaging directly influence consumer-perceived food product quality and brand preference. Rizwan, Vishnu, Raheem and Muhammad (2014) found out that packaging elements such as color, the design of wrapper, packaging material are factors consumers consider before purchasing a product.	There is knowledge gap on the extent to which product mix strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers this is the knowledge gap that the current study hopes to fill.
The extent to which price strategy influences the sales performance of <i>Bixa Ollerana</i> among small scale farmers	Sije and Oloko (2013) established that the pricing strategy has a significant positive effect on sales performance of small and medium enterprises. Njomo and Margaret (2016) established that there was a negative relationship between penetration pricing and firm performance: soft drink example. Nagle and Singleton (2011) found that companies, which implemented sophisticated value-based pricing strategies, earn 31% higher operating income than competitors basing pricing strategies on market share goals or target margins. Perminus and Wilson (2017) established that there was a positive relationship between penetration pricing and firm profitability.	Knowledge gap on the extent to which price mix strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers which is the knowledge gap the current study will fill
The extent to which placement strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers	Ferri, Mohd, Radia, and Hamidreza (2012) conducted research on the impact of distribution channel innovation on the performance of Small and Medium Enterprises. Findings revealed found out that innovation in the assortment; information sharing and transportation coordination had positive and significant relationships with firm performance. Laswai (2013) established that the distribution channel has a positive influence on sales performance. Chege, Muathe and Thuo (2014) established that marketing capabilities and choice of distribution strategy have a significant influence on performance.	There is knowledge gap on the extent to which placement mix strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers which is the knowledge gap the current study will fill
The extent to which promotion strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers	Hamed and Farideddin (2016) established that price promotion had a significant impact on perceived product and service quality. Bingqun, Kejia, and Tingju (2016) conducted research on analyzing the impact of price promotion strategies on manufacturer sales performance. Findings revealed that price promotion strategies affect sales performance. Aliata, Odondo, Aila, Ojera, Abong, and Odera (2012), established that there was a positive relationship between promotional strategies and bank performance. Festus(2016) established that there was a positive and significant relationship between sales promotion and performance.	There is knowledge gap on the extent to which promotion mix strategy influences the sales performance of <i>Bixa Orellana</i> among small scale farmers which is the knowledge gap the current study hopes to fill.

## 2.6 Critique of the Reviewed Literature

The empirical literature reviewed in this section forms the framework for a detailed study of the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. The study also looked at how government policy influenced the relationship between marketing mix strategies and sales performance in the *Bixa Orellana* value chain.

According to Salleh and Kamaruddin (2011), sales performance can be calculated through a sales volume analysis, a marketing expense analysis, and a profitability analysis based on a comprehensive evaluation of the organization's revenues and losses on product lines, territories, and major customer accounts. The profitability analysis is a summary of the sales volume analysis and the marketing cost analysis. Marketing cost research is a study of marketing costs to determine the effectiveness of various marketing strategies.

Owomoyela *et al.*, (2013) also see marketing strategy as a way to produce a quality product that satisfies customer needs, offers an affordable price and participates in wider distribution, and backs it up with an effective promotion strategy. Marketing strategy is a key requirement for the ability of industry to increase its market share and minimize the influence of competition. The definition of a marketing mix strategy therefore involves a deliberate and careful selection of strategies and policies for the company Product, Price, Place and Promotion, as well as an additional 3ps for services, namely Staff, Physical Evidence and Processes. For this study Marketing mix refers to the 4Ps of the first line marketing strategies, namely Product, Price, Place and Promotion for tangible products. All components must be carefully selected and mixed in the right proportions in order to enhance the product or service and make it attractive to the consumer (Palma,

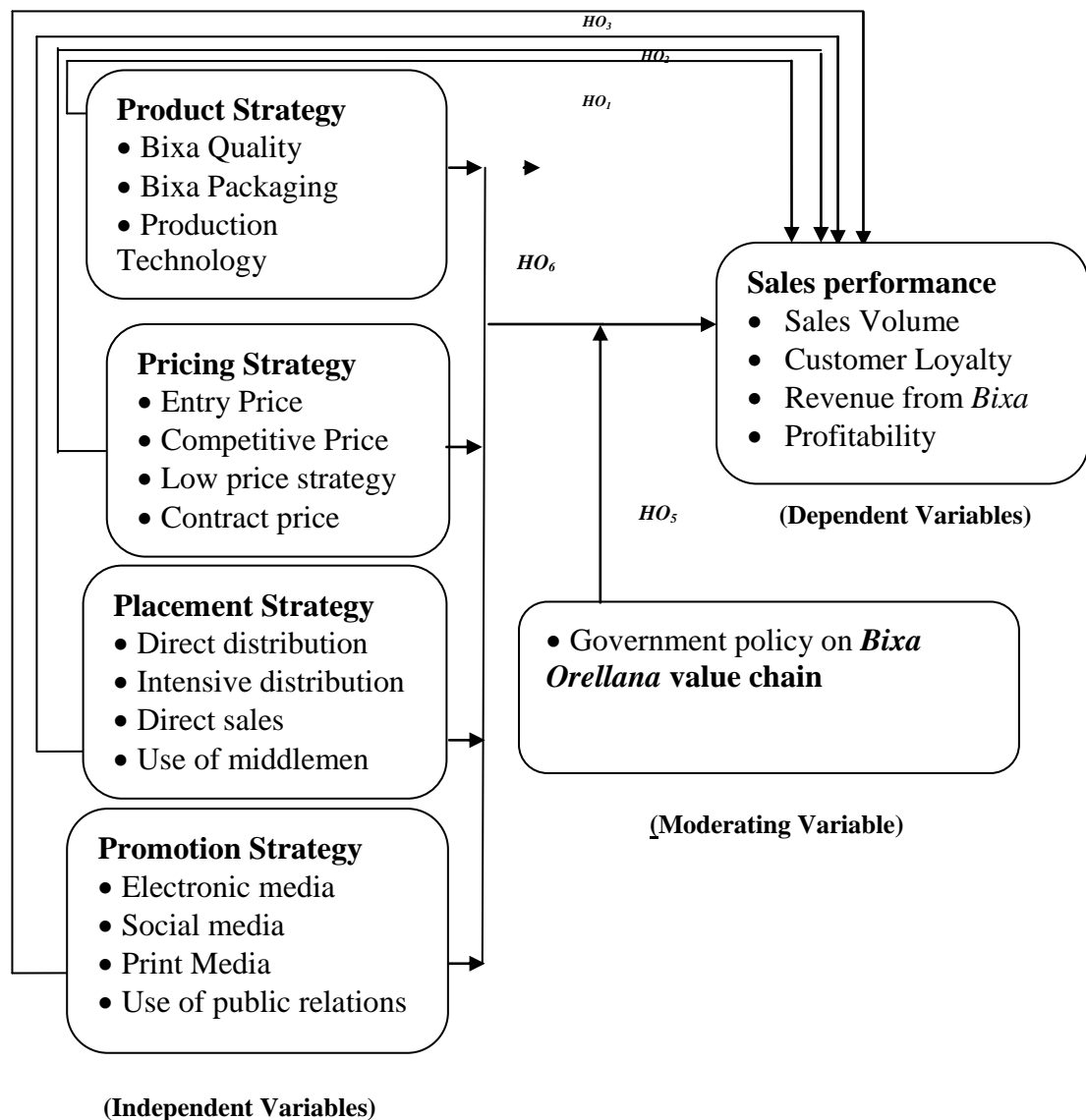
2011). Effective marketing mix strategies have significantly contributed to improved business performance in various aspects of the company, such as the increase in sales volume, the amount of return on investment and the preservation of goodwill. This means that effective marketing mix strategies increase the level of competitiveness and market share. In another study by Kurtz and Boone (2011), the effectiveness of marketing mix strategies has an influence on the level of implementation of strategies that influence the performance of marketing mix strategies. The study argued that the problems faced by marketers are their inability to demonstrate the level of efficacy of their marketing mix strategies. This makes it difficult to predict the changes taking place in the company's marketing situation and to assess the market as a whole.

The studies evaluated the effect of marketing mix strategies on the sales performance of firms but did not examine the influence of marketing mix strategies on the sales performance of *Bixa Orellana* by small-scale farmers in Kwale County, Kenya, which is the literary void that the findings of the current study have made use of as new information. Furthermore, none of the studies examined the moderating influence of the Government's policy on the value chain of *Bixa Orellana* on the relationship between marketing mix strategies and sales performance, which is the new information that the current study has added to the influence of the marketing mix strategies on the sales performance of *Bixa Orellana*.

## **2.7 Conceptual Framework**

The conceptual framework is a model that defines the concepts or variables that will be used in the analysis, as well as their relationships. It is a collection of principles (variables) that the researcher can put into practice in order to achieve the study's goals. The reader will be able to see the proposed partnership thanks to the logical structure.

Marketing mix techniques, which include product, pricing, positioning, and promotion, are independent variables in conceptualization. Sales performance of small-scale Bixa Orellana farmers in Kwale County, Kenya, as measured by sales volume, consumer loyalty, income, and profitability from Bixa is the dependent variable. The moderating variable is the Government Policy on the value chain of *Bixa Orellana* among small scale *Bixa Orellana* farmers in Kwale County. When effective marketing mix strategies which include product, pricing, placement and promotion strategies are used in the production and marketing of *Bixa Orellana*, sales performance is expected to improve and vice versa. When government policy on *Bixa Orellana* value chain is introduced as a moderating variable, the relationship between the marketing mix strategies and sales performance is expected change or remain constant depending on how the policy affect the marketing mix strategies used by the farmers.



**Figure 2: Conceptual Framework**

Source: Author

### 2.7.1 Product Strategy

Kotler (2005) defines the product strategy as all physical products or services that can be offered for acquisition or consumption to satisfy the wishes or needs of the customer. Therefore, the product is more than a generic packaged good available for sale. This includes the services and benefits that can be derived from the product. It may be enhanced by adding functionality and making other options available. Product strategy is the way a company competes on the market and improves its overall performance (Day



and Wensley 2010). According to Samiee (2010), the product strategy is the single most important component of the marketing campaign system and is seen as a roadmap for the distribution of marketing resources for the achievement of the company's revenue, financial and consumer performance objectives.

### **2.7.2 Pricing Strategy**

Price policy is a systematic decision-making mechanism regarding all aspects of company or sector pricing. Price balances supply and demand. Price lets the customer and the seller agree on a certain amount for goods and services (Peter & Olson 2005). Price is a pricing method applied in relation to the target market, product mix, services and competition (Kotler & Armstrong, 2003). Price should cover overall costs so that businesses do not suffer losses. Managers should consider how to set prices taking into account factors such as demand, competition, distribution networks, the internal climate and public authorities (Wagle, 2003). The pricing strategy is said to have been effective when a business sets product or service prices and tries to retain them for a period of time (Wagle, 2003).

### **2.7.3 Placement Strategy**

Place approach includes providing goods or services to the end consumer. The distribution channel is very critical depending on the size of the business, the cost of distribution and the quality of the product (Wagle, 2003). Placement strategy is a method to make the product or service accessible to the end-user. There are three primary distribution strategies: exclusive distribution, limited distribution and intensive distribution. Exclusive distribution allows only a few stores to sell a given product. Selective distribution only includes the sale of goods at designated outlets. Intensive distribution, by comparison, means marketing a product to as many sources as possible.

#### **2.7.4 Promotion Strategy**

The promotion strategy provides the means by which customers are aware of new products and their characteristics in order to influence demand for them. Promotion acts as a means of persuading and informing end users about the features of the product and thus encouraging them to like the product. The advertising strategy for placing a product on the market will take two different categories: the push strategy and the pull strategy. The push approach is to take the product to the consumer. The tactics include: point of sale displays, product design, and face-to - face promotions, trade shows and productive retail supply chains (Gibson, Hanna, Defee & Chen, H, 2017). The pull strategy is to motivate the customer to come to you for the product. The strategies shall include: word-of - mouth, advertising, sales promotion, brand management, product placement and public relations tools. The aim is to increase sales revenues (Gibson et al., 2017).

#### **2.7.5 Sales Performance**

Sales performance is an estimate of the sales quantity generated by the business activities of the individual sales representatives, as defined by O'Sullivan and Abela (2007). In the meantime, success is the method of performing a job that can be used for marketing assessment (Bonoma, 2012; Franco-Santos et al, 2007). Multiple organizations use Key Performance Measures (KPIs) to determine their strategic goals and priorities. Key performance measures are primary metrics used to assess and evaluate sales performance to assist in a more consistent and repeatable revenue generation process (Bonoma, 2012). Sales success is calculated by several KPIs, including sales volume, contact duration, lead response time, follow-up contact and also through the opportunity-to-win ratio.

### **2.7.6 Government Policy on Bixa Production**

Strategy for Revitalizing Agriculture (SRA) also offered policy guidance and steps that needed to be taken in each agricultural subsector to achieve the vision. The SRA was followed by Vision 2030, which was introduced in 2008 as the new long-term development blueprint for the country. In the 2030 vision, the agricultural sector is seen as crucial in delivering the 2030 vision economic pillar, where smallholder agriculture will be transformed from subsistence to advanced, commercially-oriented and modern agriculture (GoK, 2010). *Bixa Orellana* was recently scheduled to appear in the Kenya Gazette (Gok, 2020). The crop is scheduled by an act of Parliament, followed by gazettment by the Cabinet Secretary Agriculture, which enables the crop to obtain government funding by budget allocation.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter addresses the following: research methodology, research design, study target population, sample size, sampling method, data collection methods, data collection procedure, reliability and validity of test instruments, data processing procedures and ethical considerations.

#### **3.2 Research Philosophy and Design**

##### **3.2.1 Research Philosophy**

A research philosophy is a collection of principles about how data should be obtained, interpreted, and applied to a phenomenon. Epistemology (what is proven to be true) vs. doxology (what is assumed to be true) is a concept that incorporates various research philosophies (Holden & Lynch, 2004). The study follows a positive analysis approach, which is based on the research concept, which systematizes the information generation process through quantification, which is primarily intended to improve the accuracy of parameter representation and the determination of their relationship (Cohen, Manion, Morrison & Morrison, 2007).

Positivism seeks information of social phenomena without regard for people's subjective viewpoints. It means that the social world exists objectively, outside of human experience, and is composed of facts organized in a law-like manner (Coopers & Schindler, 2004). According to Rajasekar, Philominathan, and Chinnathambi (2006), the positivism approach requires that the study be conducted in an unbiased manner, that the researcher be unbiased and that the research subject not be influenced or harmed, and that the research's final product be the rule. The study opted for a positivism approach

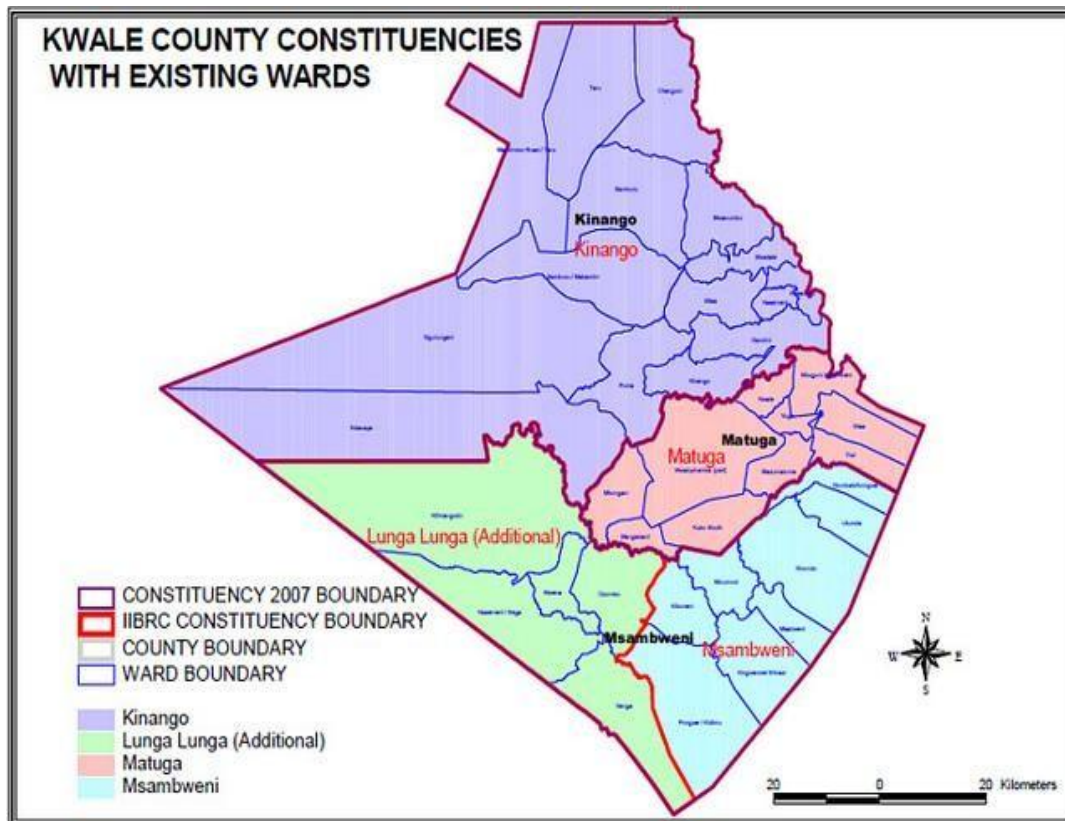
because the analysis was objective, the researcher was impartial and the findings of the study were not influenced by the views of the researcher in order to ascertain the exact effect of the marketing mix strategies on the sales success of small-scale Bixa Orellana farmers in Kwale County, Kenya. The research has opted for the method, because it emphasizes quantifiable results that have been used for statistical analysis, and because the study aims to use quantifiable figures in the regression model to back up the findings, this theory is acceptable.

### **3.2.2 Research Design**

To assess the influence of marketing mix strategies on the sales performance of small-scale Bixa Orellana farmers in Kwale County, Kenya, the researcher used a descriptive survey design based on quantitative and qualitative tool. A descriptive study design explains and tells the way things are, assert Mugenda and Mugenda (2003). To ensure the depth of expertise and precise descriptive analysis of the sample's characteristics used to make population inferences, a descriptive survey design has been used (Orodho, 2004). When collecting data about a historical or current phenomenon, the descriptive nature is useful (Churchill & Iacobucci, 2005). The researcher needed a clearer understanding of the existing state of play of the study subject's conceptions and values, so this design was chosen (Kothari, 2004). The researcher needed to gather data on phenomena that couldn't be seen directly, so this term came in handy. Its advantage was that by using questionnaires and interview schedule, it was possible to collect vast quantities of quantitative and qualitative data from a large population in a highly precise, easy, and cost-effective manner.

### **3.3 Location of the Study**

Kwale County is one of the six coastal counties. It is bordered on the north by Taita Taveta County, the north east by Kilifi County, the north by Taita Taveta and Kilifi, the north by Mombasa County and the Indian Ocean, and the south by the United Republic of Tanzania. The county is located in Kenya's south-east corner, between 30 3' and 40 45' south latitudes and 380 31' and 390 31' east longitudes. The county has a total area of 8270.2 km<sup>2</sup>, with 62 km of it being under water. The county's location on the Kenyan coast makes it a strategic location for rapid economic development. The county headquarters are in Kwale City, the county's capital, which is 30 kilometers southwest of Mombasa and 15 kilometers inland, bordering the Simba Hills National Reserve. The Coastal Plain, the Foot Plateau, the Coastal Uplands, and the Nyika Plateau are the four major topographical features of Kwale County. Kwale County's coastline is approximately 250 kilometers long. Corals, sand, and alluvial deposits make up this stretch of land. The Foot Plateau, which is situated behind the Coastal Plain, is between 60 and 135 meters above sea level. A flat surface with high agricultural potential, permeable sandy hills, and loamy soils characterize the plateau. This zone is composed of Jurassic rocks and sandy hills consisting of Magarini sands ideal for bixa growing. Kwale County has four sub-counties, namely Lunga -Lunga, Msambweni, Matuga, and Kinango.



**Figure 3: Map of Kwale Sub-Counties where *Bixa Orellana* is grown**

### 3.4 The Population of the Study

The target population for the study was 2,419 *Bixa Orellana* farmers in Kwale County, registered with the Ministry of Agriculture (GoK, 2018), Kwale County. According to Mugenda (2003), the target population is identified as the population to which the researcher wants to generalize the results of the analysis. *Bixa* farmers in Kwale were ideal because they are already in the industry, which means that they have an interest and are well versed in the factors that affect the production and marketing of *bixa Orellana*.

### 3.5 Sampling Procedure and Sample Size

According to Creswell (2012), a sample is a small group of a statistical population representing attitudes, opinions, behaviors, or characteristics of the large population. The method of selecting a subset of the population (sample) that represents the entire population and participated in the study is known as sampling. The sample size for this

analysis was determined using Roscoe's rule of thumb Sekaran (2003), which states that a sample size of greater than 30 and less than 500 is optimal for most research purposes. A sample size of between 10% and 30%, according to Mugenda and Mugenda (2008), is a fair representation of the target population of up to 1,000 elements, while Dooley (2007) considers a sample size of between 10% and 40% to be adequate for detailed or in-depth studies. The coefficient of variance was used to determine the sample size of 106 Bixa Orellana farmers. Nassiuma (2000) suggests that in most surveys or tests, a coefficient of variance in the range of 21 to 30% and a standard error in the range of 2 to 5% is usually acceptable.

$$S = \frac{N(Cv)^2}{(Cv)^2 + (N - 1)e^2}$$

Where S = the sample size

N = the population size

Cv = the Coefficient of Variation

e = standard error

Therefore, the sample size was:

$$S = \frac{2,419 (0.21)^2}{(0.21)^2 + (2,419-1) 0.02^2} = 105.486 \approx 106 \text{ farmers}$$

After obtaining the 106 sample size of the small scale farmers, the researcher used stratified sampling technique to apportion the sample size in each Sub-County based on the population strength. In order to pick the sample in the Sub-County, the researcher used simple random technique where a maximum of the sample size was picked out of the entire population in the strata. A simple random sample is one in which each member in the population has an equal and independent chance of being chosen (Fraenkel & Wallen, 2000). It is the preferred type for almost all surveys and is critical for data



reliability and validity. It's the most reflective of the entire population, so it's the strongest. A simple random sampling technique was used to select 106 Bixa Orellana farmers in Kwale County who formed the sampling framework for the study. The sample distribution of the questionnaires was distributed as shown in Table 2.

**Table 2: Sample Distribution**

<b>Constituency</b>	<b>Population</b>	<b>Sample Size</b>
Matuga	1105	48
Msambweni	811	36
Lungalunga	502	22
<b>Total</b>	<b>2418</b>	<b>106</b>

Source: Department of Agriculture, Livestock and Fisheries (2019)

The sample frame for the qualitative data was collected using interview schedule obtained from 30 Key Informants. The key informants were the farmers who had experience in production of Bixa for a period not less than 10 years. The researcher was interested in this category of farmers based on their knowledge in Bixa value chain. The 30 farmers were purposively selected based mainly on their experience in growing Bixa. Mugenda and Mugenda (1999) observe that purposive sampling is a sampling technique that allows a researcher to use cases that have the required information with respect to the objectives of his or her study. Therefore, subjects are hand picked because they are informative or they possess the required characteristics.

### **3.6 Data Collection Instruments**

The study used primary data collection instruments including structured questionnaire (Appendix II) and interview schedule for the Key Informants (Appendix III). A simple random sample was used to pick every member in the population who had an equal and independent chance of being chosen (Fraenkel & Wallen, 2000). It is the most suitable

form for almost any survey, and it is critical for the data's reliability and validity. Since it is the most reflective of the entire population, it is the strongest. The study's sampling structure was developed by selecting 106 Bixa Orellana farmers in Kwale County using a simple random sampling technique who gave information addressed in the questionnaires and 30 key informants for interview schedule.

### **3.6.1 Pilot Study**

The pilot test was carried out in Lamu County because it has similar population characteristics and climatic conditions to those of Kwale County and the fact that Bixa has also been grown in both Counties since the 1970s. The pilot study involved 15 participants who were found to be adequate according to Isaac and Michael (1995) who suggested that 10 to 30 participants are ideal for conducting a pilot study. The pilot study was carried out to assess the reliability and validity of the instruments in order to the necessary improvements as appropriate.

### **3.6.2 Validity of Research Instrument**

The degree to which an instrument actually measures what it was built or meant to measure is referred to as validity (Burton & Mazerolle, 2011; Bolliger & Inam, 2012). According to Drost (2011), there are four forms of validity that researchers should consider. Internal validity, construct validity, and external validity are all aspects of statistical conclusions' validity. On the basis of the alpha level and the variances obtained, statistical conclusion validity refers to inferences about whether it is rational to assume covariation. The study's internal validity communicates the research's validity. External validity of a study means that it can be applied to other people, places, and times, but not generally to the target population. When a metric is consistently evaluated and accurately reflects a unique definition, it is said to have construct validity. It refers to

how well a construct, such as a concept, idea, or action, has been translated or converted into a working and operational reality (Aila & Ombok, 2015). This study conducted a construct validity test to ascertain the validity of the study instrument involving 15 selected Bixa Farmers serving as participants. The result of this test established that respondents were relatively homogeneous in terms of their responses on the items of data collection instrument.

### **3.6.3 Reliability of Instrument**

The degree to which a specific measurement technique produces reliable results over a series of tests is referred to as measurement reliability. The reliability was measured using the Alpha (Cronbach) technique. The internal consistency model Alpha (Cronbach) is based on the average inter-item correlation. The high alpha value (ideally greater than 0.7) shows that the instruments are very consistent in measuring the variables. According to Kline (1999), the appropriate Cronbach's alpha value is between 0.7 and 0.9, which was adopted in the study.

To assess the survey instrument's reliability, 15 small-scale Bixa Orellana farmers in Lamu County, Kenya, participated in a pilot survey. These respondents had over ten years of experience as Bixa Orellana small-scale farmers. Cronbach Alpha  $r > 0.7 < 0.9$  was defined by reliability results on different parts of the instrument, as shown in Section 4.2 of Chapter 4. This is shown by the fact that these respondents had a lot of experience delivering the details requested in the survey.

### **3.7 Data Collection Procedure**

Following the successful presentation of the proposal, the data collection process included receiving an introductory letter from Kabarak University's Institute of Post-Graduate Studies, which was used to apply for a research permit from the National

Commission for Science, Technology, and Innovation (NACOSTI). The research permit was presented to Kwale County Commissioner and County Director of Education, who both accepted the permit and gave consent for the researcher to carry out the research. Four research assistants were trained and recruited by the researcher. The researcher supervised the data collection process by instructing research assistants about how to collect data. The researcher received a phone call at the end of each day's activities for backstopping purposes in order to improve the quality of the data collected. Study assistants handed out questionnaires, which were filled out by the participants and then compiled. Interview schedule were administered by the researcher and research assistants. In situations where questionnaires were incomplete, they were re-administered in order to increase the rate of return.

### **3.8 Data Analysis**

Data analysis was done with the aid of Statistical Package for Social Sciences (SPSS) version 21.0 software. The questionnaires were examined for any errors after which data was extracted, coded and keyed-in for analysis. Descriptive statistical analysis involved calculation of means, frequencies and percentages. Inferential statistical analysis involved multivariate regression analysis. The predictive importance of each of the independent variables on the dependent variable were assessed using Beta values generated from the regression analysis. The value of  $R^2$  was used for assessing the extent to which the independent variables account for variance in the dependent variable. The research hypotheses were tested using the p value approach at 95% confidence level based on the regression output. The decision rules was to reject null hypothesis if the calculated p-value is less than the significant level (0.05); and accepted if the calculated p-value was greater than the significance level (0.05). In order to assess efficiency of the regression model, linearity, collinearity, normality and homoskedasticity assumptions in OLS (Ordinary least squares)

were tested. The Shapiro-Wilk test was used to determine normality, which can detect deviations from normality due to skewness, kurtosis, or both. Its statistics range from 0 to 1, with figures greater than 0.05 indicating that the data is normal (Razali and Wah, 2011). Linearity was evaluated using the ANOVA linearity test, which measures both linear and nonlinear components of a pair of variables where nonlinearity is significant if the F significance value for the nonlinear component is less than or equal to 0.05 (Zhang & Maloney, 2011). The Durbin-Watson test, whose statistics range from zero to four, was used to assess the reliability of the error conditions, which means that the results are independent. Independent views are indicated by scores of 1.5 to 2.5 (Garson, 2012). Levene's variance homogeneity test was used to determine homoscedasticity. The data groups do not have the same variances if the Levene coefficient is significant if  $\alpha < 0.05$ . The Levene test determines if the difference between the dependent and independent variables is equal. There is also a check to see if the distribution of scores (as expressed in variance) in different variables is similar (Bryk et al, 1988). The Variance Inflation Factors (VIF) and their reciprocal tolerances were used to assess multicollinearity.

Qualitative data collected from interviews conducted by the study among respondents were analyzed using thematic analysis to obtain further insights into the phenomena under investigation and complement quantitative data. According to Mugenda and Mugenda (1999), the data in qualitative research are in the form of words rather than numbers and these words are grouped into categories. This justifies the use of thematic analysis of the interview results.

### 3.8.1 Model Specifications

The study used linear multiple regression and hierarchical linear regression, which are two forms of linear regression analysis. Due to the linear relationship between variables, linear regression was used to determine the relationship between variables. The marketing mix strategy elements were regressed against the combined elements of sales performance in a linear analysis to determine which elements had a significant relationship on sales performance. The following regression model was identified;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where;

Y = Sales performance of *Bixa Orellana*

$\beta_0$  = constant

$\beta_1, \dots, \beta_4$  = Regression Coefficients

$X_1$  = Product Strategy

$X_2$  = Price Strategy

$X_3$  = Placement Strategy

$X_4$  = Promotion Strategy

$\varepsilon$  = the error of term.

The moderating influence of the Government Policy on the value chain of *Bix Orellana* on the relationship between marketing mix strategies (product, price, placement and promotion) and sales performance was tested in the model below.

$$Y = \beta_0 + \beta_i X_i + \beta_i M + \varepsilon$$

Where;

M = Government Policy on *Bixa Orellana* value chain

$X_i$  = independent variables (i = 1, 2, 3, 4)

$\beta_i$  = coefficients (i = 1, 2, 3, 4...)

The study adopted additive moderator model where, the moderators were not allowed to interact with each other as it is in multiplicative models (Hayes, 2018). The regression analysis evaluated the variation of the dependent variable demonstrated by the variation of the independent variables by the measurement of the  $R^2$  and the adjusted  $R^2$  statistics. ANOVA for regression was also used to determine the fitness of the model generated. Bivariate regression models were first adapted to determine the influence of each independent variable on the dependent variable. A multiple regression model was then adapted to determine the combined effect that independent variables have on the dependent variable when acting together. Findings were presented in form of tables accompanied by relevant discussions.

**Table 3: Summary of Data Analyses Methods**

Objective	Hypotheses	IV - Indicators	DV- Indicators	Level of Analysis
Examine the influence of product mix strategy on sales performance of <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<b>HO<sub>1</sub>:</b> Product mix strategy has no statistical significant influence on sales performance of <i>Bixa Orellana</i> among small scalefarmers in Kwale County, Kenya.	<ul style="list-style-type: none"> <li>• Product features</li> <li>• Bixa product lines</li> <li>• Market target groups</li> <li>• Bixa delivery packages</li> </ul>		<ul style="list-style-type: none"> <li>• Mean</li> <li>• Standard Deviation</li> <li>• Regression analysis</li> </ul>
Determine the influence of price mix strategy on sales performance of <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<b>HO<sub>2</sub>:</b> Price mix strategy has no statistical significant influence on sales performance <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<ul style="list-style-type: none"> <li>• Entry price</li> <li>• Competitive price</li> <li>• Price as per quality</li> <li>• Cost based price</li> </ul>	<ul style="list-style-type: none"> <li>• Sales Volume</li> <li>• Customer Loyalty</li> <li>• Revenue from <i>Bixa</i></li> <li>• Profitability</li> </ul>	<ul style="list-style-type: none"> <li>• Mean</li> <li>• Standard Deviation</li> <li>• Regression analysis</li> </ul>
Establish the influence of placement mix strategy on sales performance of <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<b>HO<sub>3</sub>:</b> Place mix strategy has no statistical significant influence on sales performance <i>bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<ul style="list-style-type: none"> <li>• Direct distribution</li> <li>• Intensive distribution</li> <li>• Delivery on order</li> <li>• Transported to processors</li> </ul>		<ul style="list-style-type: none"> <li>• Mean</li> <li>• Standard Deviation</li> <li>• Regression analysis</li> </ul>
Examine the influence of promotion mix strategy on sales performance of <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<b>HO<sub>4</sub>:</b> Promotion strategy has no significant statistical influence on sales performance of <i>Bixa Orellana</i> among small scale farmers in Kwale County, Kenya.	<ul style="list-style-type: none"> <li>• Electronic media</li> <li>• Social media</li> <li>• Direct sales</li> <li>• Sales promotions</li> </ul>		<ul style="list-style-type: none"> <li>• Mean</li> <li>• Standard Deviation</li> <li>• Regression analysis</li> </ul>



Analyze the moderating influence of Government policy on *Bixa Orellana* value chain on the relationship between marketing mix strategies and sales performance.

**H<sub>05</sub>:** Government policy on *Bixa Orellana* value chain has no statistical significant moderating influence on the relationship between marketing mix strategies and sales performance.

- Subsidies
- Training
- Infrastructure

- Mean
- Standard Deviation
- Regression analysis

### 3.9 Ethical Considerations

Discretion was strictly observed in the course of this investigation. The researcher protected the identity and privacy of the respondents. The respondent was assured that the information supplied was used solely for academic purposes. No pressure or benefits of any sort were applied to persuade respondents to engage in the study. Participants were permitted to withdraw from the process if they so wished. The researcher followed the defined protocols for data collection by the University that is obtaining a letter of introduction for data collection from the Institute of Postgraduate Studies. The researcher used the letter to apply for research permit from NACoSTI. Finally the permit, authorization letters from the County Director of Education, Kwale and the County Commissioner, Kwale were obtained.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND DISCUSSIONS

#### 4.1 Introduction

This chapter covers sections research findings, interpretations and discussions based on study objectives. The chapter contains instrument reliability test results, demographic profile of respondents, farming characteristics of respondents, descriptive statistical and inferential statistical results.

#### 4.2 Reliability Test Results

Table 4 presents the results of Instrument reliability test from the results obtained from the pilot study. The reliability of the instrument was tested using Cronbach alpha test of reliability. According to Hair et al., (2006), a Cronbach value of at least 0.7 but not greater than 0.7 is a suitable threshold for confirmation of reliability of Instrument which was met by all the variables under investigation .

**Table 4: Item-to-total Correlations on Product Strategy**

<b>Product Strategy</b>	<b>Corrected Item-Total Correlation</b>	<b>Cronbach's Alpha if Item Deleted</b>
Product Strategy	.744	.825
Price Strategy	.577	.882
Place Strategy	.871	.809
Promotion Strategy	.725	.804
Sales Performance	.803	.837
<b>Overall Item-Total Correlation /Cronbach's Alpha</b>	<b>.744</b>	<b>.831</b>

#### 4.3 Response Rate

Out of the 106 questionnaires distributed to the respondents there were zero non-returns leading to 100% return rate. The 100% return rate was achieved through the use of

Research Assistants who were stationed in every sub-County where *Bixa* is grown in Kwale and also re-distributing questionnaires to respondents who lost the issued copy of Questionnaire.

#### 4.4 Demographic Profile of Respondents

This section presents the results of demographic characteristics of respondents which include gender category, age distribution, level of education, involment in other economic activities, family size, other crops other than *Bixa*, source of labour and aspects of government support towards *Bixa* production.

**Table 5: Demographic Characteristics of Respondents**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>		
Male	88	83
Female	18	17
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Age Bracket</b>		
Less than 40 years	6	6
Between 40-55 years	14	13
More than 55 years	86	81
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Level of Education</b>		
Primary	59	56
Secondary	43	41
College	4	3
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Income generating engagement</b>		
Yes	99	93
No	7	7
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Tyepe of income generating engagement</b>		
Informal	93	88
Formal	13	12
<b>Total</b>	<b>106</b>	<b>100</b>

Table 5 presents the frequency of the farmers' demographic information; gender parity among the farmers, age distribution, level of education and involvement in other economic activities. The results reveal that majority of the *Bixa Orellana* Small Scale Farmers in Kwale County 88 (83%) were male compared to 18 (17%) who were female. This finding indicates that men are the owners of land and therefore the production of the crop is under their control. This finding is supported by Buluku (2013) who established that although women had more access to agricultural resources, the male had control and decision making authority on the resources. Findings on age bracket revealed that majority of the farmers 86(81%) were more than 55 years, 14(13) age bracket was 40-55 years and 6(6%) were less than 40 years of age. This indicated that Bixa farming is dominated by adults rather than the youth. This indicates that the older generation have control of the land and therefore the production of Bixa which is a perennial crop.

Concerning education level, the finding revealed that majority of Bixa farmers in Kwale County 59(56%) had primary school qualification, 43(41%) had secondary school qualification and 4(3%) had college qualification, an indication that Bixa farming is carried out mostly by the farmers with basic education. This finding also indicates that the Bixa farmers therefore have the basic education and the experience to understand the factors affecting Bixa farming and were able to accurately answer the questions put to them. This finding is supported by Lew and Ndungu (2012) who established that the level of education does appear to influence the choice of farming as an ideal career choice.

Further findings on other income generating activities by the farmers revealed that majority of the farmers 99(93%) were involved in other income generating activities other than Bixa farming compared to 7(7%) who were only growing Bixa as an income

generating activities, indicating that the farmers diversified their income. Out of the farmers who were involved in other income generating activities, 93(88%) had the income generating activities in the informal sector compared to 13(12%) whose income generating activities were in the formal sector.

Table 6 presents the respondents' expenditure patterns from the income earned from Bixa, alternative crops that are grown by farmers, Source of Labour and Government support towards Bixa farming activities.

**Table 6: Expenditure Patterns, Alternative Crops, Labour and Government Policy**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Spending income from Bixa</b>		
Educating Children	17	16
Meeting Basic Needs	81	76
Investing	8	8
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Reason for growing other crops</b>		
Increase income	9	8
Spread risk in case of crop failure	9	8
Maximize land use	88	83
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Source of Labour</b>		
Family	102	96
Hired	3	3
<b>Total</b>	<b>105</b>	<b>99</b>
<b>Government Support</b>		
Yes	13	12
No	93	88
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Type of Government Support</b>		
Extension	97	92
Marketing	9	8
<b>Total</b>	<b>106</b>	<b>100</b>

The results reveal that majority of the *Bixa Orellana* Small Scale Farmers in Kwale County 81(76%) use the proceeds from Bixa farming to provide basic needs to their households, 17(16%) use the proceeds to educate their family members and 8(8%) use

the proceeds to invest in other investment portfolios. Concerning the reasons for growing other crops other than Bixa, the majority of the farmers 88(83%) did so to maximize the use of their land, 9(8%) did so to increase their income and also spread the risk of crop failure.

Further finding on source of labour revealed that majority of Bixa farmers in Kwale County 102(96%) used their family members and 3(3%) used hired labour. Concerning government support, the study established that majority of Bixa Farmers 93(88%) observed that the government did not give them any support concerning Bixa production value chain compared to 13(12%) who observed that the government gave them support. Out of the 12% who observed that the government gave them support, 97(92%) observed that the government gave support on extension services and 9(8%) observed that the government gave support on marketing of Bixa.

#### **4.5 Farming Characteristics of Respondents**

This section covers the farming characteristics of the respondents which included; the period the *Bixa* farmers have been growing the crop, acreage of the land under *Bixa Orellana*, amount of money spent in the production of *Bixa* per Acre, the number of *Bixa* trees the farmers have in their farms, the amount of Kilograms of *Bixa* seeds on average harvested per *Bixa* tree per year, how much on average of the *Bixa* seeds in Kilograms the farmers sold in the market, the amount of money per year the farmers spend per year on informing customers on your *Bixa* crop and the amount of money on average the farmers spend per year on distributing *Bixa* directly to customers or through middlemen.

Table 7 presents the results on period *Bixa* farmers have been growing the crop, acreages under *Bixa*, production cost and number of *Bixa* trees. The results on period *Bixa* farmers have been growing the crop revealed that about half of the respondents, 42% observed

that *Bixa* farmers have been growing the crop for more than 10 years, 33% observed that the farmers have been growing the crop between 5-10 years and 25% observed that the farmers have been growing the crop for less than 10 years. This finding revealed that *Bixa* farmers in Kwale County who were the main respondents in the study had many years' experience growing the crop and therefore had information on Influence of marketing mix strategies on sales performance of *Bixa Orellana* among small scale farmers which is the main objective of the study.

**Table 7: Period, Acreage, Production Cost and Number of Bixa Trees**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Period</b>		
Less than 5 years	27	25
5-10 years	35	33
More than 10 years	44	42
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Acreage</b>		
Less than 5 acres	65	61
5-12 acres	41	39
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Cost/Acre</b>		
Less than Kshs. 10,000	96	91
Kshs. 10,000-20,000	8	8
Kshs. 20,001-30,000	2	2
<b>No. Bixa Trees/ Acre</b>	<b>106</b>	<b>100</b>
<b>No.</b>		
50-150 trees	42	40
151-250 trees	40	38
251 trees and above	24	23
<b>Total</b>	<b>106</b>	<b>100</b>

The results on period *Bixa* farmers have been growing the crop implies that Kwale County is a reliable source of *Bixa Orellana* crop for local and international market upon which the need for development of marketing mix strategies can be drawn. Results on acreage of land under *Bixa Orellana* revealed that majority of the respondent 61% had less than 5 acres of their land under *Bixa Orellana*, 39% had between 5-12 acres under

the crop. This finding therefore indicated that *Bixa Orellana* crop was grown by small scale farmers in the County.

Concerning amount of money spent in the production of *Bixa* per acre, the study established as indicated in Table 10 that majority of respondents 91% spent less than Kshs. 10,000 in the production of *Bixa* per acre, 8% spent between Kshs. 10,000 – 20,000 in the production of *Bixa* crop per acre and 2% spent between Kshs. 20,000 – 30,000 in the production of crop per acre. This finding indicated that *Bixa Orellana* Small Scale farmers in Kwale County invested less money in the production of the crop per acre. The implication of less investment in the production of *Bixa* crop is that farmers have not given the crop the attention it deserves and that the crop has not been adequately promoted by the respective government line ministries.

Results on number of *Bixa* trees by the small scale farmers established that less than half of respondents 40% had 50-150 trees followed by 38% who had 151-250 trees and 23% who had over 250 trees in their farms. This means 78% of the respondents had 50-250 bixa trees in their farms. This finding indicated that small scale *Bixa Orellana* farmers had not taken the production of the crop seriously as indicated by most farmers having few trees. With majority of the respondents 65(61%) having less than 5 acres of their land on *Bixa Orellana* and results from interview schedule indicate that the respondents practice intercropping means that the respondents plant far less number of bixa trees per acre than the recommended 200 bixa trees per acre. The implication of this finding is the justification the farmers have not taken Bixa farming seriously and points to inadequate promotion of *Bixa* crop by relevant government line ministries, private sector stakeholders and failure of the small scale farmers to invest enough money in the production of the crop.



Findings on *Bixa* seeds harvested per *Bixa* tree per year in kilograms are presented in Table 8 indicated that about half of respondents 44% observed that they harvested 7-9kg of *Bixa* seeds per *Bixa* tree per year, 32% harvested 9.1kg and above of *Bixa* seeds per *Bixa* tree per year, 16% harvested 4-6kg of *Bixa* seeds per *Bixa* tree per year and 8% harvested 1-3kg of *Bixa* seeds per *Bixa* tree per year. The findings indicate that the majority of the farmers harvest 8Kgs and above of *bixa* seeds per acre. One Acre of land planted commercially can carry 200 *Bixa* Orellana trees. This finding indicated that despite the fact that the farmers had few *Bixa* trees in their farms; the yield was high showing potentiality of the crop in the County.

**Table 8: Quantity Harvested per Tree, Price, Marketing and Distribution Costs**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Harvest per Tree</b>		
1-3 kgs	8	8
4-6 kgs	17	16
7-9 kgs	47	44
9.1 kgs and above	34	32
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Average Price</b>		
Kshs. 60-65	5	5
Kshs. 66-71	94	89
Kshs. 72-77	4	4
Kshs. 78 and above	3	3
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Marketing Cost</b>		
Less than Kshs1000	95	90
Kshs. 1,001-2,000	8	8
Kshs. 3,001 and above	3	3
<b>Total</b>	<b>106</b>	<b>100</b>
<b>Distribution Cost</b>		
Kshs. 1-5,000	98	92
Kshs. 5,001-10,000	8	8
<b>Total</b>	<b>106</b>	<b>100</b>

Results on average price of *Bixa* seeds in kilograms the farmers sold in the market established majority of respondents 89% sold the bixa seeds at between Kenya shillings 66-71 per kilograms in the market, 5% sold at between Kenya shillings 60-65 per kilogram, 4% sold at between Kenya shillings 72-77 per kilograms while 3% sold above Kenya shillings 78 per kilograms in the market. This finding showed that *Bixa* seeds had market and therefore was economically viable in Kwale County and that there was potentiality although farmers had not put in more effort to capitalize on this potentiality.

Results on cost in shillings incurred annually by farmers in marketing their *Bixa* seeds indicated that majority of the farmers 90% spent less than Kshs.1,000 as the cost of marketing of *Bixa* seeds annually compared to 10% who spent more than Kshs. 1,000 as the cost of marketing of *Bixa* by the farmers annually. This finding indicated that in line with the earlier findings where *Bixa* farmers had few trees of the crop in their farm, so is the cost of marketing where farmers put in just little money in marketing of the crop. Further findings on average cost of distribution of *Bixa* as shown in Table 6 indicates that majority of respondents 92% spent between Kshs. 1-5,000 on distributing *Bixa* directly to customers or through middlemen compared to 8% who spent between Kshs. 5,001 to 10,000 on the same. This finding indicated that *Bixa* farmers spent less money annually on distributing *Bixa* directly to customers or through middlemen.

**Table 9: Family size and Acreage under other Crops**

Variable	N	Min	Max	Mean	Std. Dev
Family size	105	5	11	8	1.993
Acreage under other crops	105	1	3	2	0.826

Table 4.9 presents the results on family size and acreage of the farm that was committed under other crops by the respondents. The findings revealed that *Bixa* Farmers had an average of 8 family members in their house hold with the largest household having 11

family members and the smallest 5 family members with a standard deviation of 1.993 from the mean. Findings on acreage under other crops revealed that majority of the farmers had 2 acres of the land under other crops other than Bixa with maximum of 3 acres and minimum of 1 acre under other crops deviating from the mean with 0.826.

#### **4.6 Descriptive Statistical Results**

This section covers descriptive statistical results for the variables in the study which included product, pricing, promotion and placement strategies used by the respondents as well as sales performance of Bixa.

##### **4.6.1 Product Strategy**

Table 10 presents the results of the descriptive statistics on product strategy. The indicators of product strategy included; *Bixa* varieties that are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* produced is unique and cannot be easily imitated and *Bixa* product quality as per customer requirements is taken into consideration.

**Table 10: Product Strategy Descriptive Statistics**

<b>Product Strategy</b>	<b>SD (%)</b>	<b>D (%)</b>	<b>U (%)</b>	<b>A (%)</b>	<b>SA (%)</b>
A number of bixa varieties are produced according to market requirements	9(8%)	32(30%)	5(5%)	44(42%)	16(15%)
Adjustments are made to the production of bixa as per customer requirements	5(5%)	-	1(1%)	61(58%)	37(36%)
Farming technologies that maximize bixa production output are used	12(11%)	8(8%)	-	57(54%)	29(27%)
The bixa produced on the farm is unique and cannot be easily imitated	2(2%)	15(14%)	5(5%)	36(34%)	48(45%)
Bixa product quality as per customer requirements is taken into consideration in <i>Bixa</i> production.	1(1%)	3(3%)	2(2%)	41(39%)	59(55%)
Bixa is packaged during delivery as per customer requirements	19(18%)	13(12%)	-	45(42%)	29(27%)
A lot of benefits can be derived from Bixa	11(10%)	8(8%)	-	49(46%)	38(36%)

Key: SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree

The results revealed that about half of respondents 60 (57%) agreed that *Bixa* varieties are produced according to market requirements compared to 41 (38%) who disagreed and 5 (5%) who were undecided. Findings on production as per customer requirements determined that the majority of respondents 98 (94%) agreed that production of *Bixa* varieties is done as per customer needs compared to 5 (5%) who disagreed and 1 (1%) who were undecided. This means the respondents are aware of *Bixa* product varieties required by customer and they produce accordingly.

Further findings on use of farming technologies that maximizes production revealed that majority of respondents 86 (81%) agreed that farming technologies that maximize *Bixa* production output are used compared to 20 (19%) who disagreed. Concerning *Bixa* produced is unique, the study found that the majority of respondents 84 (79%) agreed that *Bixa* produced is unique and cannot be easily imitated compared to 17 (16%) who disagreed and 5 (5%) who were undecided. Findings on *Bixa* product quality revealed that majority of respondents 98 (94%) agreed that *Bixa* product quality as per customer requirements is taken into consideration during production compared to 4 (4%) who disagreed and 2 (2%) who were not sure. Further findings on packaging of *Bixa* established that majority of respondents 74(69%) agreed that *Bixa* is packaged during delivery as per customer requirements compared to 32(30%) who disagreed. Concerning *Bixa* having a lot of beneficial to customers, the study established that majority of respondents 87(82%) agreed that a lot of benefits can be derived from *Bixa* compared to 19(18%) who disagreed.

This finding indicated that product strategies were effective including; *Bixa* varieties are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* produced is unique and cannot be easily imitated, *Bixa* product quality as per customer requirements is taken into consideration, *Bixa* is packaged during delivery as per customer requirements and that a lot of benefits to customers can be derived from *Bixa*.

The finding on *Bixa* production according to customer requirements is supported by Nirusa (2017) conducted a research on the mediating role of perceived product quality. Survey was used to 105 firms. It was revealed that there was a relationship between organizational capability and perceived product quality. The results on products

manufactured according to customer requirements are further supported by Kamotho (2011) who conducted research on the effect of packaging and labeling on consumer perception of quality hair care products. The analysis used a descriptive nature of the research. The survey included 60 hairdressers and 60 salon clients. It was concluded that the emblem, icons, font size and patterns, directions for use, country of origin and information are examples of the packaging label attributes that consumers are searching for when purchasing a product. It was recommended that hair care companies place more focus on the product, the design of the box, and the colors they use on their packaging.

Further findings from interviews carried on specific farmers concerning product strategy carried out on 7 farmers from Matuga constituency are as per sequencing in Appendix IV. The interviewed farmers observations were as follow;

*Majority of farmers do intercropping of Bixa and other food crops like green grams, cassava, maize and passion fruits. Majority of the farmers do Bixa intercropping with other food crops results inot higher yields and better quality crop as they receive more attention interms of weeding and manure application when the other ,food crops are being produced. The common variety of Bixa grown is the tall variety with Red and Green Pods which is high yielding requiring high rainfall but difficult to harvest because of the height.The Tall variety also take longer to mature. The second variety is the short variety with red and green pods. The short varieties is an early maturing variety and will produce good harvest even when the rains are scarce.The short variety is also easy to harvest. This variety can be harvested throughout the season.Farmers indicated that this short variety is more susceptible to diseases than the tall variety especially during the cold and rainy season. The farmers prefer the short varietie even though they retain the older tall Variety which has been planted for many years. Farmers however, plant the varieities whose seedlings were easily available. The farmers do not do much mechanization in the production of Bixa apart from ploughing the land using oxen driven ploughs. The uniqueness of the Bixa product is dependent on the way they the plant is tendered which include weeding, mulching, manure application and harvesting at the right time leading to Bixa seeds which had more weight and clean comparatively.*

The results of the descriptive statistics on price strategy are presented in Table 11. The indicators of price strategy were; Pricing of *Bixa* is informed by the cost of production, Low prices is charged in order to increase market share, that is help farmers sell every product they produce, *Bixa* product is sold according to market price, demand of *Bixa* is

considered when setting prices, *Bixa* is sold according to contract price with buyer, pricing is pegged on competitor prices, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered. The results was that majority of respondents 90% disagreed that Pricing of *Bixa* is informed by the cost of production compared to 7% who were undecided and 3% who agreed. Concerning Low prices for market share, the study established that 96% disagreed that low prices is charged in order to increase market share, that is help farmers sell every product they produce compared to 4% who agreed. Further findings on sales according to market price, the results revealed that 70% agreed that *Bixa* product is sold according to market price compared to 30% who disagreed. This finding is supported by Hilton (2011), setting the price for an organization's product or service is one of the most crucial decisions a manager faces, and one of the most difficult, due to the number of factors that must be considered. The finding is also supported by Liozu (2013) in his study in which his results had a positive relationship between value-based pricing and firm performance. Findings on demands dictating the price, the results revealed that majority of the respondents 70% agreed that demand of *Bixa* is considered when setting prices compared to 22% who disagreed and 6% who were undecided.

#### 4.5.2 Pricing Strategy

**Table 11: Pricing Strategy Descriptive Statistics**

Pricing Strategy	SD (%)	D (%)	U (%)	A (%)	SA (%)
Pricing of Bixa is informed by the cost of production	49 (46%)	47 (44%)	7 (7%)	3 (3%)	-
Low prices is charged in order to increase market share – sell every product I produce	77 (73%)	25 (23%)	-	2 (2%)	2 (2%)
Bixa product is sold according to going rate in the market	25 (24%)	7 (6%)	-	44 (42%)	30 (28%)
Sometimes the level of demand of Bixa is considered when setting my prices	2 (2%)	21 (20%)	6 (6%)	66 (62%)	11(10%)
Bixa is sold according to contract price with buyer	32 (30%)	25(24%)	4 (4%)	40 (38%)	5 (6%)
The pricing is pegged on competitor prices	5 (5%)	3(3%)	-	61 (57%)	37 (35%)
Price discounts for cash payments is offered	68 (64%)	30 (28%)	-	7 (6%)	1 (2%)
Quantity discounts for bulk purchases is offered	80 (75%)	25 (24%)	-	1 (1%)	-

Key: SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree

Concerning sales according to contract price, the study established that about half of respondents (54%) disagreed that *Bixa* is sold according to contract price with buyer compared to 42% who agreed and 4% who were undecided. Majority of respondents 92% agreed that pricing is pegged on competitor prices compared to 8% who disagreed. Further findings on discount for cash payment revealed that majority of respondents 92% disagreed that price discounts for cash payments is offered compared to 8% who agreed. Last, findings on quantity discount in bulk purchases revealed that majority of



respondents 99% disagreed that quantity discounts for bulk purchases is offered compared to 1% who agreed.

The findings showed that out of the 8 pricing sub-strategies (see Table 13) only 3 of them were effective; *Bixa* product is sold according to market price, demand of *Bixa* is considered when setting prices and pricing is pegged on competitor prices. The pricing strategies that were not effective included; Pricing of *Bixa* is informed by the cost of production, low prices is charged in order to increase market share, *Bixa* is sold according to contract price with buyer, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered. Interviews conducted among the same group of other 7 farmers from Matuga Constituency on pricing strategy had the following observations (See the Sequencing in Appendix IV);

*The prices is Bixa is based on the prices set by the processor and the middlement and therefore most farmers have no direct control on the cost of production when pricing Bixa. Middlemen often offer prices of Bixa lower than the minimum prices set by the processor and that farmers often by making telephone calls to fellow farmers and middlemen compare prices offered by different middlemen before selling their Bixa. The processor and middlemen have upper hand on the price offered to the farmers and therefore make the Bixa price in Kwale County, Kenya to be a controlled price.*

#### **4.6.3 Placement Strategy**

The indicators of placement strategy were; different channels are used for *Bixa* distribution, *Bixa* seeds are delivered direct to customer, middlemen are used in the distribution of *Bixa* seeds to customers, investment in storage facilities is done to ensures availability of good quality *Bixa* for customers, investment in transport facilities like motor bicycle for *Bixa* sales and distribution purposes, collaboration with other *Bixa* farmers in cooperatives or buying centres ensure effective delivery of *Bixa* to customers, the cost of delivery of *Bixa* to the factory is minimal and that the distribution channels used make *Bixa* available to consumers.

Findings on placement strategy (Table 12) revealed that about half of respondents 51% agreed that different channels are used in *Bixa* distribution compared to 44% who disagreed and 5% who were undecided. The finding is supported by Ferri, Mohd, Radia, and Hamidreza (2012) conducted research on the impact of distribution channel innovation on the performance of Small and Medium Enterprises. Findings revealed that innovation in the assortment; information sharing and transportation coordination had positive and significant relationships with firm performance. Findings on direct delivery channel established that about half of the respondents 59% disagreed that *Bixa* seeds are delivered direct to customer compared to 39% who agreed and 2% who were undecided. Further findings on middle men channel established that majority of respondents 72% agreed that middlemen are used in the distribution of *Bixa* seeds to customers compared to 28% who disagreed and 2% who were not sure. Concerning investment in storage facilities, findings established that majority of respondents 76% agreed that investment in storage facilities is done to ensure availability of good quality *Bixa* for customers compared to 24% who disagreed.

**Table 12: Placement strategy Descriptive Statistics**

Placement strategy	SD (%)	D (%)	U (%)	A (%)	SA (%)
Different channels are used Bixa distribution	12 (11%)	35 (33%)	5 (5%)	40 (38%)	14 (13%)
Bixa seeds are delivered direct to customer	17 (16%)	46 (43%)	2 (2%)	30 (28%)	11 (11%)
Middlemen are used in the distribution of bixa seeds to customers	7 (7%)	20 (19%)	2 (2%)	61 (58%)	16 (14%)
Investment in storage facilities is done to ensure availability of good quality bixa for customers.	8 (6%)	19 (18%)	-	63 (59%)	16 (17%)
Invested in transport facilities like motor bicycle for Bixa sales and distribution purposes	30 (28%)	14 (13%)	-	46 (44%)	16 (15%)
Collaboration with other Bixa farmers in cooperatives or buying centres in delivering Bixa to customers is done	60 (57%)	27 (26%)	-	11 (10%)	8 (7%)
The cost of delivering Bixa to the factory is minimal	59(54%)	20(19%)	-	16(15%)	13(12%)
The distribution channels used makes Bixa accessible to consumers	3(3%)	6(6%)	-	23(22%)	74(70%)

**Key:** SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree

Further findings on investment in transport facilities established that about half of respondents 59% agreed that investment in transport facilities like motorcycle for *Bixa* sales and distribution purposes compared to 41% who disagreed. Findings on investment in cooperatives societies or buying centres established that majority of respondents 83% disagree that there is collaboration with other *Bixa* farmers in cooperatives or buying centres to ensure effective delivery of *Bixa* to customers compared to 17% who agreed.

Further findings on cost of delivering Bixa, the study established that majority of respondents 79(73%) disagreed that the cost of delivering Bixa to the factory is minimal compared to 29(27%) who agreed. Findings on Bixa distribution channel, the study established that majority of respondents 97(92%) agreed that the distribution channel used makes Bixa accessible to consumers compared to 9(8%) who disagreed.

The findings showed that *Bixa* small scale farmers in Kwale County used 5 out of the 8 place mix strategies in marketing *Bixa* to customers, these strategies included; different channels are used in *Bixa* distribution, middlemen are used in the distribution of *Bixa* seeds to customers, investment in storage facilities ensures availability of good quality *Bixa* for customers, investment in transport facilities like bicycles and motorcycle for *Bixa* sales and distribution purposes and the distribution channel used make Bixa accessible to consumers . The farmers did not use the following placement strategies; *Bixa* seeds are delivered direct to customer, collaboration with other *Bixa* farmers in cooperatives and buying centres ensures effective delivery of *Bixa* to customers. This means that the Bixa farmers are not working closely together to enhance their market position and enhance their bargaining power with customers. The majority of the respondents also disagreed that the cost of delivering Bixa to the factory is minimal. This means that majority of the farmers use middlemen to sell their Bixa.

The results from interview conducted on placement strategy on 5 farmers in Msambweni Constituency had the following observations (See the Sequencing in AppendixIV);

*Farmers either directly deliver Bixa to the Processor, Kenya Bix Ltd or sell their Bixa to the middlemen. The majority of the farmers prefer selling Bixa to middlemen because they were near and will buy even small quantities. The middlemen also pay cash on delivery which majority of the respondents prefer to meet their immediate financial obligations. Before the Bixa is sold either to the middlemen or to the Processor by the respondents, they store the crop in their houses as the crop dries to achieve the recommended moisture content. For those who sell to the middlemen, they use*

*motorcycles as the main means of transport, whereas those who sell to the Processor do not incur any cost since the processor picks the crop from the farmers' homes. The processor normally asks the quantity of Bixa available before they come and pick from the farm. Cooperatives societies in their locality have in the past been mismanaged and they lost faith in them and that the majority of them do not belong to any cooperative society related to Bixa production. This means that the small scale Bixa farmers miss out on advantages of working together and coordinating their distribution activities and enjoying economies of scale in better storage facilities, lower transport costs to market and even training.*

The observations from the interviewed farmers on distribution strategy is supported by Guei, Barra and Silue (2011) who in a study to assess the effectiveness of methodologies aimed at improving the sustainability of quality cereal seed production and supply in Cameroon concluded that producers required financial support and that it was crucial to raise awareness and train cereal seed producers while building partnerships between all stakeholders, producers and local research and development partners.

#### **4.6.4 Promotion Strategy**

Under promotion strategy, the following indicators were considered; advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa* produce is undertaken, social media is used to sell *Bixa* products, public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken, that due to cost implications electronic media is preferred for international customers, that electronic media is used to promote *Bixa* in Kwale County, that promotion strategy used to increase consumption of *Bixa* and that various promotion techniques are used in promoting *Bixa*.

**Table 13: Promotion Strategy Descriptive Statistics**

Promotion Strategy	SD (%)	D (%)	U (%)	A (%)	SA (%)
Advertisement in the print media is made for bixa customers in the local market	67 (63%)	7 (9%)	-	2 (2%)	27 (26%)
sales promotion to encourage sales for bixa produce is undertaken	55 (52%)	34 (32%)	1 (1%)	16 (15%)	-
Social media is used to sell my bixa products	71 (67%)	31 (29%)	2 (2%)	1 (1%)	1 (1%)
Public relations campaign to ensure a positive image for bixa products and the farm is undertaken	4 (4%)	7 (7%)	1 (1%)	54 (52%)	37 (36%)
Due to cost implications electronic media is preferred for international customers	99 (93%)	6(6%)	-	1 (1%)	-
Electronic media is used to promote Bixa in the County	73(69%)	18(17%)	-	9(8%)	6(%)
Promotion strategy used increase consumption of Bixa	61(58%)	11(10%)	-	19(18%)	15(14%)
Various promotion techniques are used in promoting Bixa	81(76%)	6(6%)	-	10(9%)	9(8%)

**Key:** SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree

Table 13 presents results of promotion strategy. The results revealed that majority of respondents 72% disagreed that advertisement in the print media is made for *Bixa* customers in the local market compared to 28% who agreed. Findings on sales promotion established that majority of respondents 84% disagreed that sales promotion to encourage sales for *Bixa* produce is undertaken compared to 15% who agreed and 1% who were not sure. Further findings on social media promotion established that majority

of respondents 96% disagreed that social media is used to sell *Bixa* products compared to 2% who agreed and 2% who were not sure. Concerning public relations, the study established that majority of respondents 88% agreed that public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken compared to 11% who disagreed and 1% who were not sure. Findings on electronic media promotion established that majority of respondents 99% disagreed that due to cost implications electronic media is preferred for international customers compared to 1% who agreed. Concerning the use of electronic media, the study further established that majority of the respondents 91(86%) disagreed that electronic media is used in the promotion of *Bixa* in the county compared to 15(14%) who agreed. Further findings on increased consumption of *Bixa*, the study established that majority of respondents 72(68%) disagreed that promotion strategy used increase consumption of *Bixa* compared to 34(32%) who agreed. Again findings on use of various promotion techniques, majority of respondents 87(82%) disagreed that various promotion techniques are used in promoting *Bixa* compared to 19(17%) who agreed.

The findings on promotion mix strategy indicated that small scale *Bixa* farmers in Kwale County used only public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken. The farmers did not use the following promotion strategies in marketing *Bixa*; advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa* produce is undertaken, social media is used to sell *Bixa* products, that due to cost implications electronic media is preferred for international customers, that electronic media is used to promote *Bixa* in Kwale County, that promotion strategy used increased consumption of *Bixa* and that various promotion techniques are used in promoting *Bixa* in Kwale County. Qualitative

information was also collected from other 5 farmers from Msambweni Constituency who gave the following views (See the Sequencing in AppendixIV);

*Concerning promotion strategy, the analyzed information from the interview conducted with the five farmers from Msambweni Constituency had the following observations; The farmers do not use any specific media to advertise for their harvested crop. They neither use print media, electronic media nor social media to advertise the produced Bixa seeds. The communication on delivery to the middlemen and the processors is done using telephone calls or simply visiting the middlemen and the Processor to notify them about their crop.*

#### **4.6.4 Government Policy**

Descriptive statistics on Government Policy on *Bixa Orellana* value chain analyzed in this section included; the government regulates *Bixa* industry and updates farmers on prices, the government provides subsidies like fertilizer and land preparation for *Bixa* farming, government extension officers provide technical training on *Bixa* farming, the policy addresses roads network in *Bixa* growing areas, there is sufficient information and training on marketing of *Bixa* crop from Government officials, there is a Government Agency charged with the promotion, production and marketing of *Bixa* crop, the government extension officers have provided information on new varieties of *Bixa* crop to be planted and that government policy on *Bixa* value chain is effective.

Findings on Government Policy on *Bixa Orellana* Value Chain shown on Table 14 revealed that majority of respondents 97% disagreed that the government regulates *Bixa* industry and updates farmers on prices compared to 3% who agreed. Concerning Government provision on subsidies, the study established that majority of respondents 99% disagreed that the government provides subsidies like fertilizer and land preparation for *Bixa* farming compared to 1% who agreed. Findings on Government extension officers established that majority of respondents 97% also disagreed that government extension officers provide technical training on *Bixa* farming compared to 3% who agreed.



**Table 14: Government Policy on *Bixa Orellana* Value Chain**

<b>Policy Issue</b>	<b>SD (%)</b>	<b>D (%)</b>	<b>U (%)</b>	<b>A (%)</b>	<b>SA (%)</b>
The government regulates <i>Bixa</i> industry and updates farmers on prices	71 (67%)	32 (30%)	-	2 (2%)	1 (1%)
The government provides subsidies like fertilizer and land preparation for <i>bixa</i> farming	72 (68%)	33 (31%)	-	1 (%)	-
Government extension officers provide technical training on <i>Bixa</i> farming	70 (66%)	33 (31%)	-	2 (2%)	1 (1%)
The policy addresses Roads network in <i>Bixa</i> growing areas	15 (14%)	45 (43%)	14(13%)	31(30%)	2 (2%)
There is sufficient information and training on marketing of <i>Bixa</i> crop from Government officials.	58 (55%)	45 (42%)	2 (2%)	1 (1%)	-
There is a Government Agency charged with the promotion, production and Marketing of <i>Bixa</i> crop.	61(57%)	43 (41%)	1 (1%)	1 (1%)	-
The government extension officers have provide information on new Varieties of <i>Bixa</i> crop to be planted	64 (60%)	41 (39%)	-	1 (1%)	-
The government regulates <i>Bixa</i> industry and updates farmers on prices	67 (63%)	36 (34%)	-	1 (%)	2 (2%)

**Key:** SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree.

Further findings on policy on road network revealed that about half of respondents 57% disagreed that the policy addresses Roads network in *Bixa* growing areas compared to 32% who agreed and 14% who were not sure. Concerning information on marketing *Bixa* revealed that majority of respondents 97% also disagreed that there is sufficient

information and training on marketing of *Bixa* crop from Government officials compared to 3% who were undecided and 1% who agreed. Findings on Government Agency for *Bixa* established that majority of respondents 98% disagreed that there is a Government Agency charged with the promotion of *bixa* crop compared to 1% who were undecided and agreed respectively. Findings concerning information on new Varieties revealed that majority of respondents 99% disagreed that government extension officers have provided information on new varieties of *Bixa* crop to be planted compared to 1% who agreed. Last, concerning policy on value chain, the study established that majority of respondents 97% also disagreed that government policy on *Bixa* value chain is effective compared to 3% who agreed.

The findings on Government Policy on *Bixa Orellana* Value Chain indicated that the Government did not have effective policy that supports *Bixa* production and marketing. This was evident with lack of effective policy on; regulation on *Bixa* industry and updates farmers on prices, provision of subsidies like fertilizer and land preparation for *Bixa* farming, extension officers provision of technical training on *Bixa* farming, policy that addresses roads network in *Bixa* growing areas, policy on sufficient information and training on marketing of *Bixa* crop from Government officials, policy on agency charged with the promotion, production and marketing of *Bixa* crop, extension officers provision of information on new varieties of *Bixa* crop to be planted and policy on *Bixa* value chain effectiveness. Qualitative information was collected from other 3 farmers from Lungalunga Constituency who gave the following views ((See the Sequencing in AppendixIV);

*The implication of respondents view on Government Policy on Bixa crop value chain done among 3 farmers from Lungalunga Constituency had the following observations; Although Kwale County is a reliable source of Bixa Orellana crop for local and international market with existing potentiality in the production of the crop, there is inadequate Policy supporting the entire value chain in the County leading to less investment in the production and marketing of the crop. Most farmers are not aware of any Government Policy and Regulation on Bixa apart from other crops like maize. Such crucial services as subsidised Bixa seeds and seedlings, extension services, marketing and especially price guidelines were not provided by either the County Government or National Government. The farmers therefore felt that Government involvement on Bixa value chain is a good idea and that the Governments should offer training and extension services, marketing and certified Bixa seeds and seedlings .*

#### **4.6.5 Sales Performance**

Descriptive Statistics on Sales Performance of *Bixa Orellana* indicators in this section include; the sales volume of Bixa crop has increased due to the marketing mix strategies, the marketing mix strategies leads to customer loyalty to the small scale *Bixa* farmers, Kwale Small Scale *Bixa* farmers are able to sell to the market all the *Bixa* that they produce, small Scale *Bixa* farmers sales revenue has increased and that Bixa farming has become profitable in Kwale County.

**Table 15: Bixa Sales Performance Descriptive Statistics**

<b>Sales Performance</b>	<b>SD (%)</b>	<b>D (%)</b>	<b>U (%)</b>	<b>A (%)</b>	<b>SA (%)</b>
The sales volume of Bixa crop has increased since the marketing mix strategies were employed by the farmers	-	-	-	68 (64%)	38 (36%)
The marketing mix strategies have lead to customer loyalty to the small scale <i>Bixa</i> farmers	1 (1%)	-	-	67 (63%)	38 (36%)
Kwale Small Scale <i>Bixa</i> farmers are able to sell to the market all the <i>Bixa</i> that they produce	3 (3%)	-	-	43 (41%)	60 (56%)
Small Scale <i>Bixa</i> farmers sales revenue has increased	-	-	-	30 (28%)	76 (72%)
Sales performance is also measured using contact durations	10(9)	7(7)	-	82(77)	7(7)
The marketing mix strategies used reduces lead response time	16(15)	11(10)	-	65(61)	14(13)
Bixa farming has become profitable in Kwale County	-	-	-	20 (19%)	86 (81%)

Key: SD = Strongly Disagree, D =Disagree, U = Undecided, A = Agree and SA = Strongly Agree

Table 15 presents the results of Bixa sales performance by small scale farmers in Kwale County. Bixa is either sold by the Small Scale Bixa Farmers directly to Kenya Bixa Ltd which is the processor or sold through middlemen. Findings on sales volume revealed that all respondents 100% agreed that the sales volume of Bixa crop has increased since the marketing mix strategies were employed by the farmers. Further findings on customer loyalty revealed that majority of respondents 99% agreed the marketing mix strategies have lead to customer loyalty to the small scale *Bixa Orellana* farmers

compared to 1% who disagreed. Concerning sale of *Bixa* products, the findings revealed that majority of respondents 97% agreed that Kwale Small Scale *Bixa* farmers are able to sell to the market all the *Bixa* that they produce compared to 3% who disagreed. Findings on increase in sales revenue revealed that all respondents 100% agreed that small Scale *Bixa* farmer's sales revenue has increased and that *Bixa* farming has become profitable in Kwale County respectively. Concerning sales performance linked to contract duration, the study established that majority of the respondents 89(84%) agreed that sales performance measured based on contract duration compared to 17(16%) who disagreed. Finally, on marketing mix strategies used to reduce lead response time, the study established that majority of the respondents 79(74%) agreed that marketing mix strategies is used to reduce lead response time in *Bixa* marketing compared to 27(25%).

This finding indicated that the application of marketing mix strategies improved sales performance of *Bixa* by small scale farmers in Kwale County. This was evident from the analyzed data where the respondents agreed that; the sales volume of *Bixa* crop increased since the marketing mix strategies were employed by the farmers, the marketing mix strategies lead to customer loyalty to the small scale *Bixa* farmers, Kwale small scale *Bixa* farmers were able to sell to the market all the *Bixa* that they produce, small scale *Bixa* farmers sales revenue increased, that *Bixa* farming was profitable in Kwale County, that *Bixa* sales performance measured based on contract duration and that *Bixa* marketing mix strategies is used to reduce lead response time in *Bixa* marketing

The interviewed farmers had the following as far as the influence of the marketing strategies on sales performers of *Bixa*. Qualitative information was also collected from other 3 farmers from Lungalunga Constituency who gave the following views ((See the Sequencing in AppendixIV);

*The quality of the Bixa crop produced is of high quality and attracted the customers leading to the sale of all the crops they produced. Although the Bixa crops are sold, the farmers have a feeling that they can sell more through enhanced production if the distribution channels are improved, certified seeds provide, training conducted by extension officers and attractive prices provided by the middlemen and customers.*

#### **4.7 Results of OLS Assumptions tests**

Before performing an inferential analysis, a diagnostic test was conducted to test the Pearson correlation assumption and multiple regression analysis. This included the normality test using the Shapiro-Wilk test, the Auto-correlation test using Durbin Watson, the multi-collinearity test using VIF & Tolerance, the linearity test using ANOVA and the homogeneity test using the Levene test. Multicollinearity was tested by the calculation of the Variance Inflation Factors (VIF) and their reciprocal tolerances.

##### **4.7.1 Shapiro-Wilk Normality Test**

**Table 16: Shapiro-Wilk Normality Test**

<b>Sales performance</b>	<b>Kolmogorov-Smirnov<sup>a</sup></b>			<b>Shapiro-Wilk</b>		
	Statistic	Df	Sig.	Statistic	df	Sig.
Disagree	.293	9	.025	.875	9	.139
Undecided	.296	7	.063	.840	7	.099
Agree	.193	10	.200*	.902	10	.228

The results of the Kolmogorov-Smirnov test and the Shapiro-Wilk test are presented in Table 16. The dependent variable for this test was the sales performance of Bixa by small-scale farmers, while the independent variable was marketing mix strategies, including product, price, place and promotion strategies. Since the Shapiro-Wilk Test was greater than 0.05, the study statistically confirmed that the data used were normally distributed.

#### 4.7.2 Multicollinearity Test

The researcher performed a post estimation analysis of the model to check for robustness of the model using multicollinearity test.

**Table 17: Variance Inflation Factor (VIF) Test**

Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Product	.437	2.288
Price	.418	2.394
Place	.318	3.142
Promotion	.405	2.471
Govt. policy	.437	2.290

Multicollinearity was tested using Variance Inflation Factor (VIF) and the results were presented in Table 17. Multicollinearity is found to exist when the Variable Inflation Factor is less than 1 or greater than 10. The results indicated that VIF was between 2.288 and 3.142 (see Table 17). Since the VIF statistics was found to be greater than 1 and less than 10; we conclude that there was no statistical evidence of existence of multicollinearity in the data.

#### 4.7.3 Levene Data Normality Test

**Table 18: Levene Data Normality Test**

Variable	Levene Statistic	df1	df2	Sig.
Product	2.704	1	48	.107
Price	.958	1	48	.333
Place	.849	1	48	.361
Promotion	.271	1	48	.605

The Levene's F Test for Equality of Variances is the most commonly used statistic to test the assumption of homogeneity of variance. The Levene's test uses the level of

significance set a *priori* for the t test analysis ( $\alpha = .05$ ) to test the assumption of homogeneity of variance. The F value for Levene's test was highest at product strategy 2.704 and lowest at promotion strategy 0.271 with a p-value of 0.605 respectively (See Table 18). Because the p-values for all the variables were found to be greater than alpha of 0.05, there was sufficient evidence that the assumption of homogeneity of data was supported.

#### **4.8 Inferential Statistical Results**

This section presents the inferential statistical results on the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small-scale farmers in Kwale County, Kenya. The independent variables of the study included; marketing mix strategies comprising product, price, place and promotions. The dependent variable was Sales performance of *Bixa Orellana* among small scale farmers in Kwale County Kenya. This was measured in terms of sales volume, customer loyalty, revenue and profitability from *Bixa*. The study also tested moderating effect of Government policy on *Value chain of Bixa Orellana* on the relationship between marketing mix strategies and sales performance.

##### **4.8.1 Influence of Product Strategy on Sales Performance**

This section presents the results of the influence of product strategy on sales performance of small scale *Bixa Orellana* farmers in Kwale County. In testing this relationship, the study used the sub-variables under product strategy (*Bixa* varieties are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* produced is unique and cannot be easily imitated and *Bixa* product quality as per customer requirements is taken into consideration) as the independent variables and aggregated



sales performance as the dependent variable. Further the study used linear regression to identify which of the sub-variables of product strategy has significant relationship with sales performance of small scale *Bixa Orellana* farmers in Kwale County.

**Table 19: R Square**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.613 <sup>a</sup>	.376	.344	.27219

Results from Table 19 revealed that the R value was 0.613 whereas R Square was 0.376, which indicated a high degree of correlation. The R<sup>2</sup> value indicates how much of the dependent variable, "sales performance *Bixa Orellana* among small scale farmers", was explained by the independent variables, "product strategy including; *Bixa* varieties are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* produced is unique and cannot be easily imitated and *Bixa* product quality as per customer requirements ". In this case, 37.6% was the R Squared, which was fairly large indicating the proportion of the variance for sales performance explained by product mix strategy.

**Table 20: ANOVA of Product strategy and Sales Performance**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	4.456	5	.891	12.028	.000 <sup>b</sup>
Residual	7.409	100	.074		
<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "*Bixa* varieties are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* produced is unique and cannot be easily imitated, *Bixa* product quality as per customer requirements is taken into consideration, *Bixa* is

packaged as per customer requirements and a lot of benefits can be derived from *Bixa*". The Dependable variable: "sale performance of *Bixa Orellana* among small scale farmers". Table 20 indicated that the regression model significantly predicted the outcome variable with  $p=0.000$ , which was less than 0.05, and indicated that; overall, the model statistically and significantly predicted the outcome variable. The implication of this finding was that the data collected for the study had high correlation between the independent variable (product strategy) and dependent variable (sales performance).

**Table 21: Product Strategy and Sales Performance**

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1 (Constant)	4.045	.240		16.872	.000
Varieties on market requirement	.015	.022	.058	.689	.492
Production as per customers requirement	.108	.044	.227	2.423	.017
Technology to maximizes production	.083	.024	.308	3.502	.001
Unique product and cannot be imitated	.111	.027	.367	4.076	.000
Quality as per customers requirement	.021	.040	.047	.516	.607
<i>Bixa</i> is packaged as per customer requirements	.017	.028	.034	.408	.711
A lot of benefits can be derived from <i>Bixa</i>	.047	.069	.581	.743	.307

Table 21 shows the results of the analysis of the relationship between product strategy sub-variables and sales performance of *Bixa Orellana*. The study established insignificant relationship between *Bixa* varieties that are produced according to market requirements

and sale performance of *Bixa Orellana* ( $\beta=0.015$ ,  $p=0.492>0.05$ ). Production of *Bixa* as per customer requirements was found to have a positive and significant relationship on sale performance of *Bixa Orellana* ( $\beta=0.108$ ,  $p=0.017<0.05$ ). This finding showed that an improvement in production as per customer requirements by 1 unit would lead to 0.108 multiple units increase in sales performance. Further, the study established a significant relationship between farming technologies that maximize *Bixa* production output are used and sales performance of *Bixa Orellana* ( $\beta= 0.083$ ,  $p=0.001<0.05$ ). The positive relationship indicated that an increase in use of farming technology in *Bixa* production by 1 unit lead to an icrease in sales performance by 0.083 multiple units. This finding is supported by Muthengi (2015) who also conducted an empirical rsearch on the influence of marketing strategies on sales performance of commercial banks in Kenya. The results of the study showed an overall significance of the product mix variables adopted.

Findings on the relationship between production of *Bixa* products that are unique and can not be easily imitated and sales performance of *Bixa Orellana* was positive and significant ( $\beta=0.111$ ,  $p = 0.000<0.05$ ). This result indicates that an improvement of 1 unit in the techniques used to produce unique products that cannot be easily imitated leads to an increase of 0.111 multiple units in sales performance. This finding is supported by Njuguna (2018) who also conducted research on effects of marketing mix strategies on export performance of avocado firms in Kenya. The study concluded that product strategy had greatest contributor to export performance of Avocadoes in Kenya and recommended that export firms should make product management a key strategy by investing in quality production, better fruit selection and quality certification and thereafter to transport them to the market in ways that leave their physical attributes desirable to their customers. The study revealed an insignificant relationship between

Bixa product quality on the basis of customer requirements and sales performance of a small scale Bixa Orellana farmers ( $\beta = 0.021$ ,  $p=0.607>0.05$ ). The increase in Bixa product quality by 1 unit has led to an improvement in sales performance of 0.021 multiple units.

Concerning packaging, the study established insignificant relationship between Bixa packaging as per customer requirements and sales performance of a small scale Bixa Orellana farmers ( $\beta=0.071$ ,  $p=0.711>0.05$ ). Lastly findings on benefits of Bixa to customers, the study established an insignificant relationship between the benefits and sales performance of Bixa Orellana ( $\beta = 0.047$ ,  $p=0.307>0.05$ ).

The study found that there were significant relationships between the following product strategy sub-variables; production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used and *Bixa* produced is unique and cannot be easily imitated and sale performance of *Bixa Orellana*. The four product strategy sub-variables that were found to not have significant relationship with sales performance of *Bixa Orellana* were; *Bixa* varieties are produced according to market requirements, *Bixa* product quality as per customer requirements, Bixa is packaged as per customer requirements and a lot of benefits can be derived fro Bixa.

The results shown in Table 21 indicated that the beta value was significant (for Bixa produced as per customer requirement ( $\beta=0.108$ ,  $p=0.017$ ), farming technology used miximizing bixa production ( $\beta=-0.083$ ,  $p=.001$ ) and unimitable product ( $\beta=0.111$ ,  $p=0.0000$ ). Since, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used and *Bixa* produced is unique and cannot be easily imitated and sales performance of *Bixa Orellana*. Hence, there was adequate statistical evidence to conclude that product strategy influenced the sales

performance of small scale *Bixa Orellana* farmers in Kwale, County to great extent. The following simple regression model presents the prediction of sales performance of *Bixa Orellana* by the product strategy sub-variables;

$$Y = 4.045 + 0.0150X_1 + 0.108X_2 + 0.083 X_3 + 0.111 X_4 + 0.021X_5 + 0.017X_6 + 0.047 X_7$$

Where  $X_1 \dots X_7$  = Product Strategy sub-variables.

#### 4.8.2 Influence of Price Strategy on Sales Performance

This section presents the findings of the effect of the pricing strategy on the sales performance of *Bixa Orellana* among small-scale farmers in Kwale County. In testing this relationship, the study used the sub-variables under price strategy (Pricing of *Bixa* is informed by the cost of production, Low prices is charged in order to increase market share, that is help farmers sell every product they produce, *Bixa* product is sold according to market price, demand of *Bixa* is considered when setting prices, *Bixa* is sold according to contract price with buyer, pricing is pegged on competitor prices, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered) As independent variables and aggregated sales performance as dependent variables. Further, the study used linear regression to assess which of the price strategy sub-variables has a significant relationship with the sales performance of *Bixa Orellana* small-scale farmers in Kwale County.

**Table 22: R Square**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.701 <sup>a</sup>	.491	.449	.24944

Results from Table 22 revealed that the R value was 0.701 whereas R Square was 0.499, suggesting a strong degree of correlation. The  $R^2$  value indicates how much of the dependent variable, "sales performance of *Bixa Orellana* among small scale armers",

was explained by the independent variables, "price strategy including; Pricing of *Bixa* is informed by the cost of production, Low prices is charged in order to increase market share, that is help farmers sell every product they produce, *Bixa* product is sold according to market price, demand of *Bixa* is considered when setting my prices, *Bixa* is sold according to contract price with buyer, pricing is pegged on competitor prices, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered". In this case, 49.1 percent was R Squared, which was relatively large, indicating the proportion of the variance for sales performance explained by price mix strategy.

**Table 23: ANOVA of Pricing Strategy and Sales Performance**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	5.829	8	.729	11.711	.000 <sup>b</sup>
Residual	6.035	97	.062		
<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "Pricing of *Bixa* is informed by the cost of production, low prices is charged in order to increase market share, that is help farmers sell every product they produce, *Bixa* product is sold according to market price, demand of *Bixa* is considered when setting my prices, *Bixa* is sold according to contract price with buyer, pricing is pegged on competitor prices, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered". The Dependable variable: "sale performance of *Bixa Orellana* among small scale farmers". Table 23 showed that the regression model predicted a significant outcome variable with  $p=0,000$ , which was less than 0.05, and showed that; overall, the model statistically and significantly predicted the outcome variable.

**Table 24: Pricing Strategy Indicators and Bixa Sales Performance**

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	4.462	.246			18.101	.000
Cost of production	-.183	.036	-.396		-5.120	.000
Low pricing on market share	-.039	.034	-.088		-1.151	.253
According to market rates	.058	.025	.191		2.326	.022
Demand is a factor on prices	.055	.028	.161		1.978	.051
Contract price	.023	.020	.093		1.133	.260
Competitors price	-.004	.036	-.008		-.100	.920
Discount for cash payment	.133	.032	.346		4.139	.000
Discount on bulk purchases	-.173	.054	-.259		-3.182	.002

Results on the relationship between pricing strategies and sales performance of *Bixa Orellana* among farmers shown in Table 24 have identified a significant relationship between 4 of the 8 pricing strategy variables. First, the study established significant relationship between pricing of *Bixa* is informed by the cost of production and sales performance of small scale *Bixa Orellana* farmers ( $\beta=-0.183$ ,  $p=0.000<0.5$ ). This indicated that an increase in cost of production of *Bixa* by 1 unit lead to a decrease in sales performance by 0.183 multiple units. Second, there was insignificant and negative relationship between low prices is charged in order to increase market share and sales performance of small scale *Bixa Orellana* farmers ( $\beta = -0.039$ ,  $p=0.253>0.05$ ). Low price is also a penetration price used by many firms. The finding is supported by Njomo and Margaret (2016) research on the relationship between market penetration strategies and organizational growth; the soft drink example. Stratified random sampling was used for this purpose. A simple random sampling procedure has been used to pick a sample of 160 respondents. Correlation has been made to assess the relationship between variables. It has been identified that penetration pricing has a negative effect on organizational

performance. The use of penetration pricing will lead to an increase in sales volume and market share but overall sales and organization performance may decrease due to increased cost of production.

Third, there was also significant relationship between *Bixa* product sold according to market price and sales performance of small scale *Bixa Orellana* farmers ( $\beta = 0.058$ ,  $p=0.022<0.05$ ). This finding indicates that an increase in sale according to market price by 1 unit resulted in an improvement in sales performance of 0.022 multiple units. Four, the study established insignificant relationship between demand of *Bixa* is considered when setting my prices and sales performance of small scale *Bixa Orellana* farmers ( $\beta = 0.055$ ,  $p=0.051>0.50$ ). An increase in demand for the product by 1 unit resulted in an improvement in sales performance of 0.055 multiple units. Five, there was insignificant relationship between *Bixa* is sold according to contract price with buyer and sales performance of small scale *Bixa Orellana* farmers ( $\beta=0.023$ ,  $p=0.260>0.05$ ). This finding indicated that an increase in contract pricing by 1 unit resulted in an improvement in sales performance of 0.022 multiple units. Six, the study identified an insignificant negative relationship between pricing based on competitor price and sales performance of small-scale farmers of *Bixa Orellana* ( $\beta = -0.004$ ,  $p=0.920>0.054$ ).

Seven, there was a positive significant relationship between price discounts for cash payments is offered and sales performance of small scale *Bixa Orellana* farmers ( $\beta = 0.133$ ,  $p=0.000<0.05$ ). An increase in discount for cash payment by 1 unit resulted in an improvement in sales performance by 0.133 multiple units. Eight, the findings revealed significant relationship between quantity discounts for bulk purchases is offered and sales performance of small scale *Bixa Orellana* farmers ( $\beta = -0.173$ ,  $p = 0.002<0.05$ ). This indicated that an increase in bulk purchase by 1 unit, the sales performance decreased by



0.173 multiple units. Findings indicate significant use of discounts on bulk purchases as price penetration strategy and is supported by Jim (2012 ) noted that penetration pricing is used to promote the introduction of a new product and when a product enters a market with very little product differentiation and where demand is price elastic. Discounted price is a penetration strategy used by many firms which was found to be significant in this study and supported by its significance by Sije and Oloko (2013) who conducted research on the penetration pricing strategy and success of small and medium-sized enterprises in Kenya. Stratified random sampling was used to select employees from different small and medium-sized enterprises. Questionnaires have been used to gather primary data. Descriptive and inferential statistics have been used to interpret the results. It has been identified that there is a significant positive correlation between penetration pricing and performance.

Liozu (2013) also supports the above findings through an analysis of pricing orientation, pricing capabilities and firm efficiency. The study surveyed 1,812 professionals involved in pricing to assess the effect of the pricing method on firm results. It has been established that there is a positive relationship between value-based pricing and firm performance. The finding on price mix is also supported by Hamed and Farideddin (2016) conducted research on the impact of price advertising on perceived quality and repurchase intentions. The research performed a descriptive results survey approach. Simple random sampling was performed to pick a group of 230 coffee shop customers in 5 districts of Isfahan. It has been identified that price advertising has had a substantial effect on the perceived quality of the product and service. Bingqun, Kejia and Tingju (2016) conducted research on the effect of price marketing strategies on manufacturing sales efficiency. Findings showed that pricing tactics have an influence on sales performance.

The study found that there was significant relationships between the following pricing strategy sub-variables; pricing of *Bixa* is informed by the cost of production, that is help farmers sell every product they produce, *Bixa* product is sold according to market price demand, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered and sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. There was no significant relationship between; low prices is charged in order to increase market share, demand of *Bixa* is considered when setting my prices, *Bixa* is sold according to contract price with buyer and pricing is pegged on competitor prices and sales performance of *Bixa Orellana* among small scale farmers.

The results shown in Tables 23 and Table 24 indicated that the beta value was significant (for cost of production  $\beta = -0.183$ ,  $p=0.000$ , market rate ( $\beta = 0.058$ ,  $p=0.022$ ), discount on cash sale ( $\beta=0.133$ ,  $p=0.000$ ) and discount on bulk sales ( $\beta = -0.173$ ,  $p=0.002$ ). Based on statistical evidence that established that Pricing of *Bixa* is informed by the cost of production, that is help farmers sell every product they produce, *Bixa* product is sold according to market price, demand, price discounts for cash payments is offered and quantity discounts for bulk purchases is offered influenced sales performance of *Bixa Orellana*. Hence, there was adequate statistical evidence to conclude that pricing strategy influenced the sales performance of small scale *Bixa Orellana* farmers in Kwale County, Kenya. The following regression model can therefore be used for predicting sales performance of *Bixa Orellana* based on the pricing sub-variables;

$$Y = 4.462 - 0.183X_1 - 0.039X_2 + 0.058 X_3 + 0.055 X_4 + 0.023 X_5 - 0.004X_6 + 0.133X_7 - 0.173X_8$$

Where  $X_1 \dots X_8$  = Price Strategy sub-variables

### 4.8.3 Influence of Placement strategy on Sales Performance

This section is the results of the influence of placement strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. In testing this relationship, the study used the sub-variables under place strategy (different channels are used in *Bixa* distribution, *Bixa* seeds are delivered direct to customer, middlemen are used in the distribution of *Bixa* seeds to customers, investment in storage facilities ensures availability of good quality *Bixa* for customers, investment in transport facilities like motor bicycle for *Bixa* sales and distribution purposes and that collaboration with other *Bixa* farmers in cooperatives and buying centres ensures effective delivery of *Bixa* to customers) as the independent variables and aggregated sales performance as the dependent variable. Further the study used linear regression to identify which of the sub-variables of placement strategy has significant relationship with sales performance of small scale *Bixa Orellana* farmers in Kwale County, Kenya.

**Table 25: R Square**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.322 <sup>a</sup>	.104	.049	.32775

Results from Table 25 revealed that the R value was 0.322 whereas R Square was 0.104, indicating a low degree of correlation. The value of R<sup>2</sup> shows how much of the dependent variable, "sales performance *Bixa Orellana* among small scale farmers", was explained by the independent variables, "different channels are used in *Bixa* distribution, *Bixa* seeds are delivered direct to customer, middlemen are used in the distribution of *Bixa* seeds to customers, investment in storage facilities ensures availability of good quality *Bixa* for customers, investment in transport facilities like motor bicycle for *Bixa* sales and distribution purposes and that collaboration with other *Bixa* farmers in

cooperatives and buying centres ensures effective delivery of *Bixa* to customers". In this case, 10.4% was R Squared, which was relatively small, indicating the proportion of the variance for sales performance explained by place mix strategy.

**Table 26: ANOVA of Placement strategy and Sales Performance**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.229	6	.205	1.908	.087 <sup>b</sup>
	Residual	10.635	99	.107		
	<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "different channels are used in *Bixa* distribution, *Bixa* seeds are delivered direct to customer, middlemen are used in the distribution of *Bixa* seeds to customers, investment in storage facilities ensures availability of good quality *Bixa* for customers, investment in transport facilities like motor bicycle for *Bixa* sales and distribution purposes and that collaboration with other *Bixa* farmers in cooperatives ensures effective delivery of *Bixa* to customers". The Dependable variable: "sale performance of *Bixa Orellana* among small scale farmers". Table 26 It showed that the regression model predicted the outcome variable to be insignificant with  $p=0.087$ , which was greater than 0.05, and indicated that; overall, the model did not statistically and significantly predicted the outcome variable. Since non of the items under placement strategy had influence on sales performance of small scale *Bixa Orellana* farmers, the researcher statistically therefore concluded that placement strategy did not influence the sales performance of small scale *Bixa Orellana* farmers in Kwale County. This is in contrast with the findings of Ferri, Mohd, Radia and Hamidreza (2012) who conducted a study on the influence of distribution channel innovation on the performance of small and medium Enterprises. Findings revealed that innovation in the assortment, information sharing and

transportation coordination had positive and significant relationship with sales performance.

#### 4.8.4 Influence of Promotion Strategy on Sales Performance

Section 4.7.4 is the results of the influence of promotion mix strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County. In testing this relationship, the study used the sub-variables under placement strategy (advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa* produce is undertaken, social media is used to sell *Bixa* products, public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken, that due to cost implications electronic media is preferred for international customers, electronic media is used to promote *bixa* in the county, promotion strategy used increased consumption of *Bixa* and that various promotion techniques are used in promoting *Bixa*) as the independent variables and aggregated sales performance as the dependent variable. Further the study used linear regression to identify which of the sub-variables of promotion mix strategy has significant relationship with sales performance of small scale *Bixa Orellana* farmers in Kwale County.

**Table 27: R Square**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
1	.648 <sup>a</sup>	.420	.391	.26225

Results from Table 27 revealed that the R value was 0.648 whereas R Square was 0.420, suggesting a strong degree of association. The R<sup>2</sup> value indicates how much of the dependent variable, "sales performance of *Bixa Orellana* among small scale farmers", was explained by the independent variables, "advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa*

produce is undertaken, social media is used to sell *Bixa* products, public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken, that due to cost implications electronic media is preferred for international customers, electronic media is used to promote *Bixa* in the county, promotion strategy used increased consumption of *Bixa* and that various promotion techniques are used in promoting *Bixa*". In this case, 42 percent was R Squared, which was relatively large, indicating the proportion of the variance for sales performance explained by promotion mix strategy.

**Table 28: ANOVA of Promotion Strategy and Sales Performance**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	4.987	5	.997	14.501	.000 <sup>b</sup>
Residual	6.878	100	.069		
<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa* produce is undertaken, social media is used to sell *Bixa* products, public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken, that due to cost implications electronic media is preferred for international customers, electronic media is used to promote *Bixa* in the County, promotion strategies used increased consumption of *Bixa*, and that various promotion techniques are used in promoting *Bixa*". The Dependable variable: "sales performance of *Bixa Orellana* among small scale farmers". Table 28 showed that the regression model had substantially predicted the outcome variable.  $p=0.000$ , which was less than 0.05, and indicated that; overall, the model statistically and significantly predicted the outcome variable.

**Table 29: Promotion Strategy Indicators and *Bixa* Sales Performance**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Stand. Coeff.</b>	<b>T</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	4.374	.185		23.692	.000
Advert in print media	-.080	.029	-.310	-2.771	.007
Sales promotion	-.084	.034	-.263	-2.480	.015
Use of social media	.014	.044	.027	.311	.756
Public relations campaigns	.075	.030	.218	2.514	.014
Electronic media preferred for international customers	.140	.071	.153	1.955	.053
Electronic media used to promote <i>Bixa</i> in the county	.083	.043	.178	2.097	.061
Promotion strategy used increased <i>Bixa</i> consumption	.064	.036	.209	2.013	.092
Various promotion techniques are used in promoting <i>Bixas</i>	.033	.011	.374	2.072	.162

Results from Table 29 present the outcome of the relationship between Promotion Strategy and *Bixa* Sales Performance. The study established that 3 out of the 8 sub-variables of promotion strategies had significant relationship with *Bixa* Sales Performance. Specifically, the study established significant relationship between advertisement in the print media and sales performance of *Bixa Orellana* among small scale farmers ( $\beta = -0.080$ ,  $p=0.007<0.05$ ). Additional 1 unit the small scale farmer would invest in print media results to -0.080 multiple unit sales performance by small scale *Bixa Orellana* farmers. The findings on advertisement is supported Osogbo (2014) conducted research on the influence of advertisement on organizational profitability. Findings have shown that advertising has an influence on organizational profitability. It was revealed that advertisement affects organizational performance and sales volume .Akanbi and Adeyeye (2011) also support the findings on advertisement in their research on the relationship between advertisement and sales volume in the Nigerian bottling company Plcakanbi. The study showed that there was a significant relationship between

advertisement and sales performance of the company. Afande (2015) conducted research on the effects of the promotional mix elements on the sales volume of financial institutions in Kenya at the Kenya Post Office Savings Bank. It was discovered that sales advertising had the most impact on sales volume followed by personal sales, public relations and direct marketing, which had the least impact on sales marketing.

Findings on advertisement are further supported by several researchers; Dauda (2015) conducted research on the impact of advertisement on sales revenue and profitability of selected food and beverage firms in Nigeria. It has been shown that there has been a positive and significant relationship between advertising and firm profitability. However, the study also found that there was no positive significant relationship between advertisement costs and the company's sales revenues. It was proposed that the company not only rely on advertising to improve sales revenue and firm profitability, but also use sales promotion and personal selling among others.

Jebungei (2014) examined the effect of advertisement on the organizational performance of cosmetic manufacturing firms in Kenya. The findings revealed that the use of advertisement helps the company to increase awareness and appeal. In addition, advertising also has an influence on the performance of products. It enables an organization to increase sales volume and profits. Liban (2015) studied the effect of advertisement on revenues of telecommunications companies in Somalia and found that advertisement had significant influence on sales volumes. Joshi, Prabhu and Chirputkar (2016) studied the effect of advertisement and sales promotion costs on the sales performance of Indian Telecommunication Companies. It has been discovered that there is a major positive relationship between advertisement and sales promotion on sales performance.



Further findings identified a significant relationship between sales promotion and sales performance of *Bixa Orellana* among small scale farmers ( $\beta = -0.084$ ,  $p = 0.015 < 0.05$ ). The additional 1 unit in sales promotion results in decrease in sales performance by 0.084 multiple units. The findings on sales promotion is supported by Osman, Chan, and Foon (2011) conducted research on the simulation of sales promotions aimed at purchasing behavior among university students. The research interviewed a total of 150 respondents. Systematic random sampling was used. Data was obtained using self-directed questionnaires. Findings showed that there was a major association between attitude towards "buy-one-get-one-free" and price discount coupons, free samples, and purchasing actions.

Findings on sales promotion are further supported by the following researchers; Festus (2016) conducted a case study on the effect of sales promotion on the organizational performance of Guinness Ghana Breweries Limited. It was revealed that there was a positive and significant relationship between sales promotion and performance. According to research conducted by Tandoh and Sarpong (2015) on the effects of sales promotion on the performance of Auto-Mobile Industries in Ghana, sales promotion has been shown to have a positive and significant influence on organizational performance. Dangaiso (2014) conducted a research on the impact of sales promotion strategies on the performance of Auto-Mobile Industries in Ghana, which revealed that the use of sales promotion practices such as bonuses, price and contest sweepstakes had a positive influence on company performance.

The findings on the use of social media formed an insignificant relationship between social media as used for the selling of Bixa products and sales of Bixa Orellan among small scale farmers ( $\beta=0.014$ ,  $p= 0.756 > 0.05$ ). With regard to the public relations

campaign, the study identified a significant relationship between the public relations campaign to ensure a positive image for Bixa products and the sales performance of small-scale *Bixa Orellana* farmers ( $\beta = 0.075$ ,  $p = 0.014 < 0.05$ ). The rise of the public relations investment by 1 unit resulted in improvement in sales performance of 0.075 multiple units. The results on the use of electronic media formed an insignificant relationship between the cost implications of electronic media for international customers sales performance of small scale *Bixa Orellana* farmers ( $\beta = 0.140$ ,  $p = 0.053 > 0.05$ ). The finding suggested that an improvement in the cost consequences for electronic media by 1 unit resulted in an increase in sales performance by 0.053 multiple units. The study established insignificant relationship between electronic media is used to promote *Bixa* in the County and sales performance of small scale *Bixa Orellana* farmers ( $\beta = 0.083$ ,  $p = 0.061 > 0.05$ ). This means an increase in electronic media to promote *Bixa* in the county by 1 unit resulted in increase in sales performance by 0.083 multiple units. There was also insignificant relationship between promotion strategy used to increase sales performance of *Bixa Orellana* among small scale farmers ( $\beta = 0.064$ ,  $p = 0.092 > 0.05$ ). This suggested that an improvement of promotion strategy by 1 unit resulted in increase of sales performance by 0.064 multiple units. Last but not least, the study found insignificant relationship between various promotion techniques used in promoting *Bixa* and sales performance of *Bixa Orellana* among small scale farmers ( $\beta = 0.033$ ,  $p = 0.162$ ). This suggests that an improvement of promotion techniques by 1 unit resulted in improvement in sales performance by 0.033 multiple units.

Findings on the promotional strategy is supported by the following researchers; Mukorombindo (2014) results found a weak relationship between direct marketing and sales performance due to a lack of a structured marketing strategy, a lack of a business budget in the consumer database, and poor communication. The result was further

supported by Afande (2015) and confirmed that sales promotion had an effect on sales volume followed by personal sales, public relations followed by direct marketing, which had the least impact on sales marketing. When designing a product, determining the best selling price and selecting an acceptable medium for distribution, the company must persuade prospective customers to do so. It is necessary for an entrepreneur to notify potential purchasers of the availability of the product or to educate the customer using promotional media such as radio, print or television.

The study found that there were significant relationships between the following three promotion strategy sub-variables; advertisement in the print media is made for *Bixa* customers in the local market, sales promotion to encourage sales for *Bixa* produce is undertaken and public relations campaign to ensure a positive image for *Bixa* products had significant relationship with sales performance of small scale *Bixa Orellana* farmers in Kwale County. The promotion strategies that did not have significant relationship with sales performance of *Bixa Orellana* among small scale farmers were; Social media are used to market Bixa goods, electronic media are preferred for foreign customers, electronic media is used to promote Bixa in the County, promotion strategy used increased Bixa consumption and various promotion techniques are used in promoting Bixa.

The results shown in Tables 4.28 and 4.29 indicated that the beta value was significant (for use of print media  $\beta = -0.080$ ,  $p=0.007$ , use of sales promotion  $\beta = -0.084$ ,  $p=.015$ , use of public relations  $\beta =0.075$ ,  $p= 0.014$ ). Since the study established that advertisement in the print media, sales promotion to encourage sales for *Bixa* produce and public relations campaign to ensure a positive image for *Bixa* products had significant relationship with sales performance of *Bixa Orellana* among small scale

farmers in Kwale County Hence, there was statistical evidence to conclude that promotion strategy influenced the sales performance of small scale *Bixa Orellana* farmers in Kwale County Kenya to great extent. The following simple regression model can be used to predict sales performance of *Bixa Orellana* based on Promotion strategy sub-variables;

$$Y = 4.374 - 0.080X_1 - 0.084X_2 + 0.014 X_3 + 0.075 X_4 + 0.140 X_5 + 0.083X_6 + 0.064 X_7 + 0.033 X_8$$

Where  $X_1 \dots X_8$  = Promotion Strategy sub-variables

#### 4.8.5 Multivariate Regression Analysis Results

Section 4.7.5 presents the results of multivariate regression analysis of influence of product, price, place and promotion mix strategies on sales performance. The researcher combined each of the sub-variables under each of the four strategies; product, price, place and promotion at a multivariate level and analyzed their combined effect on sales performance of *Bixa Orellana* among small scale farmers. The researcher aggregated the questions under each strategy, government policy and sales performance by getting the mean of all the frequencies under the sub-variables to obtain the respondents aggregated view on the strategies, government policy and sales performance.

**Table 30: R Square Results**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478 <sup>a</sup>	.228	.198	.30108

Results from Table 30 revealed that the R value was 0.478 whereas R Square was 0.228, indicating an average degree of correlation. The  $R^2$  value indicates how much of the dependent variable, "sales performance of *Bixa Orellana* among small scale farmers", was explained by the independent variables, "product, price, place and promotion

marketing mix strategies". In this case, 22.8 per cent was R Squared, which was average, indicating the proportion of the variance for sales performance explained by marketing mix strategies.

**Table 31: ANOVA Results of Marketing Mix Strategies and Sales Performance**

<b>Model</b>	<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
1 Regression	2.708	4	.677	7.470	.000 <sup>b</sup>
Residual	9.156	101	.091		
<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "product, price, place and promotion marketing mix strategies". The Dependable variable: "sale performance of *Bixa Orellana* among small scale farmers". (Table 31). It suggested that the regression model predicted a significant outcome variable with  $p=0,000$ , which was less than 0.05, and indicated that although the R Square was not large; overall, the model statistically and significantly predicted the outcome variable.

**Table 32: Regression results on Marketing Mix Strategies and Sales Performance**

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>		<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>	<b>T</b>	
1 (Constant)	4.887	.418		11.703	.000
Product strategy	.050	.055	.087	.909	.366
Price strategy	.127	.115	.101	1.102	.273
Placement strategy	-.083	.061	-.124	-1.373	.173
Promotion strategy	-.286	.072	-.382	-3.980	.000

From the the regression results presented in Table 32, the following regression model for predicting sales performance of *Bixa Orellana* was identified;

$$Y = 4.887 + 0.050X_1 + 0.127X_2 - 0.083X_3 - 0.286X_4$$

Where;

- Y : Sales performance of Bixa Orellana  
X<sub>1</sub> : Product strategy  
X<sub>2</sub> : Pricing strategy  
X<sub>3</sub> : Promotion strategy  
X<sub>4</sub> : Placement strategy

From the regression model, it can be observed that a unit change in Product strategy would lead to 0.050 unit increase sales performance and a unit change in pricing strategy leads to 0.127 unit increase in sales performance of Bixa Orellana. However, a unit change in promotion strategy leads to 0.083 decrease in sales performance and a unit change in placement strategy leads to 0.286 decrease in sales performance. Hence, it was found that both product and pricing strategies have a positive influence on sales performance while promotion and placement have negative influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. Pricing strategy was therefore found to have the highest positive influence on sales performance of Bixa Orellana. Promotion strategy was found to have the highest negative influence on sales performance of *Bixa Orellana*. This finding was not supported by Festus (2016); Tandoh and Sarpong (2015); Dangaiso (2014); Ibojo and Ogunsiji (2011); Syeda, Zehra and Sadia (2011); Adeniran, Egwuonwu, and Egwuonwu (2016); Amusat and Ajiboye (2013); who established that sales promotion had positive influence on sales performance within the context of other industries.

Overall, the study established that marketing mix strategies influenced the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya both positively and negatively. This finding is supported by Onditi's (2012) study which

established that promotional elements increased sales of agricultural and non agricultural products. According to Louter, Ouwerkerk and Bakker (1991), the distribution strategy has had a positive effect on the firm's success. Revino, Silvy and Christoffel (2015) conducted research on the impact of distribution channel sales volume in Pt. Varia Indah Paramitha Manado, Manado. Findings showed that the distribution networks had a positive and important effect on sales volumes. The finding is further supported by Kurtz and Boone (2011), the efficacy of marketing mix techniques has an influence on the level of execution of strategies that affect the performance of firms. The study argued that the problems faced by marketers are their inability to demonstrate the level of effectiveness of their marketing mix strategies. This makes it difficult to predict the changes taking place in the company's marketing situation and to assess the market as a whole.

#### **4.8.6 Hypotheses Test Results**

The hypotheses of the study were tested using the p-value approach whereby the null hypotheses would be rejected when the p-value was less than 0.05 level of significance. The p-values for each variable were extracted from Table 32 for conduction the hypotheses tests.

The Hypothesis  $H_{O1}$  that product strategy has no significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya was accepted. This is because the p-value for product strategy was found to be greater than 0.05 level of significance ( $\beta = -0.050$ ,  $p = 0.366$ ) as presented in Table 32. Hence, we conclude that product strategy did not have a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya.

The Hypothesis  $H_{O2}$  that price strategy has no significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya was

accepted. This is because the p-value for product strategy was found to be greater than 0.05 level of significance ( $\beta = -0.127$ ,  $p = 0.273$ ) as presented in Table 32. Hence, we conclude that pricing strategy did not have a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya.

The Hypothesis **H<sub>03</sub>** that placement strategy has no significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya was accepted. This is because the p-value for placement strategy was found to be greater than 0.05 level of significance ( $\beta = -0.083$ ,  $p = 0.173$ ) as presented in Table 32. Hence, we conclude that placement strategy did not have a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya.

The Hypothesis **H<sub>04</sub>** that promotion strategy has no significant influence on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya was rejected. This is because the p-value for promotion strategy was found to be less than 0.05 level of significance ( $\beta = -0.286$ ,  $p = 0.00$ ) as presented in Table 32. Hence, we conclude that promotion strategy did have a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya.

#### **4.8.6 Moderating effect of Government policy on *Bixa Orellana* value chain**

The research also set an objective to analyze the moderating influence of Government policy on *Value chain of Bixa Orellana* on the relationship between marketing mix strategies and sales performance. This was important since policy environment can accelerate the influence between marketing mix strategies and sales performance *Bixa Orellana*. The policy can also decelerate the relationship or altogether may not have any moderating influence. The researcher used multivariate regression analysis to establish this relationship.



**Table 33: R Square**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.478 <sup>a</sup>	.228	.198	.30108
2	.478 <sup>b</sup>	.228	.190	.30257

Results from Table 33 presents the R<sup>2</sup> before and after the interaction of the moderating variable Government Policy on *Bixa* value chain. Before and after the interaction, the R value was 0.478<sup>a</sup> with R<sup>2</sup> of 0.228 which indicated an average level of correlation. The value of R<sup>2</sup> shows the extent to which the dependent variable "sales performance of *Bixa Orellana* among small scale farmers", is explained by the independent variables; product, price, placement and promotion strategies and Government Policy on *Bixa Orellana* value chain. R<sup>2</sup> was found to be 22.8%, indicating that 22.8% of variation in sales performance was explained by marketing mix strategies which does not differ with the introduction of the moderating variables in the model. Since the value of R<sup>2</sup> remained the same in both the modes (before and after the introduction of government policy on *Bixa* value chain, it was statistically proved that government policy on value chain of *Bixa Orellana* had no statistical significant moderating influence on the relationship between marketing mix strategies and sales performance.

**Table 34: ANOVA of Government Policy, Marketing Mix and Sales Performance**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2.708	4	.677	7.470	.000 <sup>b</sup>
Residual	9.156	101	.091		
<b>Total</b>	<b>11.864</b>	<b>105</b>			
2 Regression	2.709	5	.542	5.919	.000 <sup>c</sup>
Residual	9.155	100	.092		
<b>Total</b>	<b>11.864</b>	<b>105</b>			

The Predictors: "product, price, place, promotion marketing mix strategies and government policy on *Bixa Orellana* value chain". The Dependable variable: "sale

performanc *Bixa Orellana* among small scale farmers”. Findings in Table 34 Indicated that the regression model had substantially predicted the outcome variable  $p=0.000$ , which was less than 0.05 before and after the interaction of the moderating variable, and indicated that although the R Square was not large; overall, the model statistically and significantly predicted the outcome variable.

**Table 35: Government Policy, Marketing Mix and Sales Performace**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1 (Constant)	4.887	.418		11.703	.000
Product_Strategy	.050	.055	.087	.909	.366
Price_Strategy	.127	.115	.101	1.102	.273
Place_Strategy	-.083	.061	-.124	-1.373	.173
Promotion_Strategy	-.286	.072	-.382	-3.980	.000
PD_GP	-.051	.053	-.906	-.965	.337
PR_GP	-.055	.047	-1.149	-1.162	.248
PL_GP	-.065	.042	-1.225	-1.552	.124
PM_GP	.254	.104	3.502	2.437	.017
GP	-.051	.350	-.272	-.146	.884

PD – Product Strategy, PR – Price Strategy, PL – Placement strategy, PM – Promotion Strategy, GP – Government Policy. The interaction was obtained by multiplying government policy by the individual marketing strategies.

Table 35 shows the findings before and after interaction of Government policy on *Bixa Orellana* value chain was introduced as moderating variable. The study established insignificant relationship between product strategies and sales performance *Bixa Orellana* among small scale farmers ( $\beta= 0.050$ ,  $p = 0.366>0.05$ ) before the interaction of Government policy as moderating variable and ( $\beta = 0.051$ ,  $p = 0.337>0.05$ ) after the interaction of the moderating variable. Further there was insignificant relationship between pricing strategies and sales performance *Bixa Orellana* ( $\beta = 0.127$ ,  $p = 0.273>0.05$ ) before the interaction of Government policy as moderating variable and ( $\beta = -0.055$ ,  $p = 0.248>0.05$ ) after the interaction of Government policy as moderating

variable. The study established insignificant relationship between placement strategies and sales performance of *Bixa Orellana* among small scale farmers ( $\beta = -0.083$ ,  $p = 0.173 > 0.05$ ) before the interaction of Government policy as moderating variable and ( $\beta = -0.065$ ,  $p = 0.124 > 0.05$ ) after the interaction of Government policy as moderating variable. Last, the analysis established that there was significant relationship between promotion strategies and sales performance of *Bixa Orellana* among small scale farmers ( $\beta = -0.286$ ,  $p = 0.000 < 0.05$ ) before the interaction of Government policy as moderating variable and ( $\beta = 0.254$ ,  $p = 0.017 < 0.05$ ) after the interaction of Government policy as moderating variable. The findings on Government policy is supported by Gicheha (2013) who established that policy interventions have had limited influence on market participation by small holder farmers due to low scale institutional support at the grassroots level from policy formulation to implementation. However, the findings on Government Policy is also contrary to the SRA also gave policy directions and actions that needed to be taken in each agricultural subsector and achieve a transformative vision from subsistence to commercial agriculture. The SRA was followed by Vision 2030, which was introduced in 2008 as a new long-term development plan for the country. In the 2030 vision, the agricultural sector is considered crucial in delivering the 2030 vision economic pillar, where smallholder agriculture will be transformed from subsistence to advanced, commercially-oriented and modern agriculture (GoK, 2010). These policies have not been fully effected in *Bixa* value chain in Kenya and therefore have not been influential in the relationship between marketing mix strategies and sales performance of *Bixa Orellan* among small scale farmers in Kwale County, Kenya.

The hypothesis **H<sub>05</sub>** that government policy on *Bixa Orellana* value chain has no statistical significant moderating effect on the relationship between marketing mix strategies and sales performance was accepted. This finding therefore indicated that the

introduction of Government policy on *Bixa Orellana* value chain did not change the relationship between marketing mix strategies and sales performance of *Bixa Orellana* among small scale farmers. Promotion mix strategy remained the only marketing mix strategy that influenced the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. When Government policy was introduced as moderating variable,  $R^2$  did not change. Since the  $R^2$  remained the same before and after the introduction of Government Policy on value chain *Bixa Orellana*, there was statistical evidence to conclude that Government Policy on *Bixa Orellana value chain* did not have moderating influence on the relationship between marketing mix strategies and sales performance. Promotion mix strategy still remained the only marketing mix strategy that influenced the sales performance as opposed to product, price and place marketing mix strategies.

#### **4.9 Summary**

This section summarizes the findings and discussions of the research carried out to assess the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. First in terms of demographic characteristics of the population, the majority of the respondents were male (83%) while females comprised 17% meaning that men are the owners of the land and had control and make decisions. The females kept in the background and left the males to respond. In terms of age, 81% of the respondents were over 55 years old, 13% of the respondents were between 40 to 55 years old, while only 6% were below 40 years old. This means that the older generation own and control the land and therefore the *Bixa* crop which is a perennial crop. In terms of Education, 56% of the respondents had primary level education, 41% had attained secondary level of education and 3% were college educated. This means that the respondents had the basic education to comprehend and

effectively participate in the research as respondents. The majority respondents had grown *Bixa* crop for considerable number of years (42% over 10 years experience, 33% between 5-10 years experience) indicating they have the experience and the understanding of the marketing mix strategies used on the crop, although their level of investment in the production of the crop was minimal.

Findings on marketing mix strategies indicated that all the 7 product strategies were effective including; *Bixa* varieties are produced according to market requirements, production of *Bixa* as per customer requirements, farming technologies that maximize *Bixa* production output are used, *Bixa* product produced is unique and cannot be easily imitated, *Bixa* product quality as per customer requirements is considered in *Bixa* production, *Bixa* is packaged during delivery as per customer requirements and a lot of benefits can be derived from *Bixa* (Table 10). The results also indicated that of the 8 pricing strategies (see Table 11) only 3 of them were effective. *Bixa Orellana* small scale farmers in Kwale County used 5 out of the 8 placement strategies in marketing *Bixa* to customers (Table 12). The study established that of the 8 promotion strategies (Table 13) *Bixa* farmers in Kwale County used only 1 promotion strategy, that is public relations campaign to ensure a positive image for *Bixa* products and the farm is undertaken. The findings on Government Policy on *Bixa Orellana* Value Chain (Table 14) indicated that the Government did not have effective policy that supports *Bixa* production and marketing. The use of marketing mix strategies (see Table 14) improved sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

The researcher carried out the following diagnostic tests to show the degree of data normality; the normality test using the Shapiro-Wilk test, the Auto-correlation test using Durbin Watson, the multi-collinearity test using VIF & Tolerance, the linearity test using

ANOVA and the homogeneity test using the Levene test. Multicollinearity was tested by the measurement of the Variance Inflation Factors (VIF) and their reciprocal tolerances. All the normality tests carried out suggested that the data collected and analyzed to determine the effect of marketing mix strategies on the sales performance of small-scale *Bixa Orellana* farmers in Kwale County , Kenya, were all valid and therefore used to achieve the set objectives.

Findings on inferential statistics established that product mix strategy influenced the sales performance of *Bixa Orellana* among small scale farmers in Kwale, County to great extent. Price mix strategy influenced the sales performance of *Bixa Orellana* among small scale farmers in Kwale, County to great extent. Promotion mix strategy also influenced the sales performance *Bixa Orellana* among small scale farmers in Kwale County to great extent. To the contrary place mix strategy did not influence the sales performance of *Bixa Orellana* among small scale farmers in Kwale County. Overall, apart from product, price and placement marketing mix strategies, promotion mix strategy influenced the sales performance of small scale *Bixa Orellana* farmers in Kwale County, Kenya. Last, the introduction of Government policy on value chain of *Bixa Orellana* did not change the relationship between marketing mix strategies and sales performance of *Bixa Orellana* among small scale farmers. Promotion mix strategy overall remained the only marketing mix strategy that influenced the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter has sections that present the summary of research findings, conclusion and recommendations of the study. It also includes policy recommendations and areas for further research. The conclusion are based on research objectives while the recommendations are based on the conclusions.

#### 5.2 Summary of the Findings

The purpose of the study was to investigate the influence of marketing mix strategies on the sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. To achieve this, the study analyzed the influence of product strategy, pricing strategy, placement strategy and promotion strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. The study also investigated the moderating effect of Government policy on *Bixa Orellana* value chain on the relationship between marketing mix strategies and sales performance. The study adopted a descriptive survey research design involving a mixed method approach that allowed quantitative and qualitative data analyses. The study targeted 2,419 registered *Bixa Orellana* farmers in Kwale County, Kenya. The sample size was 106 respondents who were selected using simple random sampling technique and interviews involved 30 key informants. The respondents consisted of 88(83%) male and 18(17%) female indicating that men are majority owners of land and controlled *Bixa* production. In terms of age, majority of the respondents 86(81%) were more than 55 years of age, 14(13%) were between 40-55 years old and only 6(6%) were less than 40 years of age indicating that *Bixa* farming being a perennial crop is dominated by the older generation.

Respondents with Primary education were 59(56%), those who had Secondary education were 43(41%) and 4(3%) had college education. On period, the respondents have been growing *Bixa* crop, 44(42%) have over 10 years experience, while 35(33%) had between 5-10 years experience. Education level of respondents indicated that majority had basic education. The study found that majority of respondents 65(61%) owned less than 5 acres, while 41(39%) owned between 5 and 12 acres of land confirming that there they are small scale farmers. The study found out that generally the respondents had planted few *Bixa* trees in their farms with 42(40%) having between 50-150 *Bixa* trees and 40(38%) having between 151 to 250 *Bixa* trees in their farms and even these is intercropped with other food crops, according to report from interview schedule. The recommended *Bixa* trees population per acre is 200. Majority of the respondents 96(91%) spend less than Ksh10,000 in the production of *Bixa* per acre per year indicating that the respondents do not give the crop the seriousness it deserves in terms of investment.

### **5.2.1 Product Strategy**

On product strategies, majority of respondents (57%) agreed that *Bixa* varieties are produced according to market requirements while majority of respondents (94%) of the respondents agreed that production of *Bixa* was done as per customer requirements. Similarly, majority of respondents (81%) agreed that farming technologies that maximize *Bixa* production output are used while 79% of respondents agreed that the *Bixa* they produced is unique and cannot be easily imitated. Further, 69% of respondents agreed that *Bixa* is packaged during delivery as per customer requirements. The study established that majority of respondents 82% agreed that a lot of benefits can be derived from *Bixa* while 81% agreed that farming technologies that maximize *Bixa* production output.



### **5.2.2 Pricing Strategy**

On pricing strategy, the study found out that majority of respondents (90%) disagreed that Pricing of *Bixa* is informed by the cost of production; 96% disagreed that low prices is charged in order to increase market share; 70% agreed that *Bixa* product is sold according to market price; 70% agreed that demand of *Bixa* is considered when setting prices compared; 54% disagreed that *Bixa* is sold according to contract price; 92% agreed that pricing is pegged on competitor prices; 92% disagreed that price discounts for cash payments is offered; and 99% of the respondents disagreed that quantity discounts for bulk purchases is offered.

### **5.2.3 Placement Strategy**

On placement strategy, the study found out that 51% agreed that different channels are used in *Bixa* distribution; 59% disagreed that *Bixa* seeds are delivered directly to customer; 72% agreed that middlemen are used in the distribution of *Bixa* seeds to customers; 76% agreed that they had invested in storage facilities is done to ensure availability of good quality *Bixa* for customers; 59% agreed that they had invested in transport facilities like motorcycle for distribution purposes; 83% disagreed that there is collaboration with other *Bixa* farmers in cooperatives or buying centres to ensure effective delivery of *Bixa* to customers; 73% disagreed that the cost of delivering *Bixa* to the factory is minimal; and 92% agreed that the distribution channel used makes *Bixa* accessible to consumers.

### **5.2.4 Promotion Strategy**

On promotion strategy, majority of respondents (72%) disagreed that advertisement in the print media is made for *Bixa* customers; 84% disagreed that they used sales promotion to encourage sales for *Bixa*; 96% disagreed that social media is used to sell

*Bixa* products; 88% of the respondents agreed that public relations campaigns were used to ensure a positive image for *Bixa* products and the farm; 99% disagreed that due to cost implications electronic media is preferred for international customers; 86% disagreed that electronic media is used in the promotion of *Bixa* in the county; 68% disagreed that promotion strategy was used to increase consumption of *Bixa*; and majority of respondents (82%) disagreed that various promotion techniques are used in promoting *Bixa*.

The simple regression analyses results indicated that apart from Placement strategy, product, price and Promotion strategies had significant influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. However, multiple regression analysis results indicated that among the 4Ps, only promotion strategy had a significant statistical influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya. The hypotheses tests which were done using p-value approach at 95% confidence level revealed that; promotion strategy had a negative but a statistical significant influence on sales performance of *Bixa* ( $\beta = -0.286$ ,  $p = 0.00$ ); product strategy had a positive but statistically insignificant influence sales performance of *Bixa* ( $\beta = 0.050$ ,  $p = 0.366$ ); pricing strategy had a positive but statistically insignificant influence sales performance of *Bixa* ( $\beta = 0.127$ ,  $p = 0.273$ ); and placement strategy had a negative but a statistical insignificant influence on sales performance of *Bixa* ( $\beta = -0.083$ ,  $p = 0.173$ ).

### **5.2.5 Government Policy**

The study further found out that Government policy on *Bixa Orellana* value chain did not have a statistical significant moderating influence on the relationship between

marketing mix strategies and sales performance since no significant changes in  $R^2$  were observed after introduction of the variable into the combined regression model.

### **5.3 Conclusions**

The first objective was to examine the influence of product strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya. The study established that product strategy had a positive but statistically insignificant influence on sales performance of *Bixa*. Since the Beta value for product strategy was positive but lower than pricing strategy, the study concluded that product strategy had the weakest positive but statistically insignificant influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

The second objective of the study was to assess the influence of which pricing strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya. The study established that pricing strategy had a positive but statistically insignificant influence on sales performance of *Bixa*. It further established that Pricing strategy had the highest positive Beta value among the variables under investigation. Therefore, the study concluded that pricing strategy had the strongest positive but statistically insignificant influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

The third objective was to establish the influence of placement strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya. The study established that placement strategy had a negative but statistically insignificant influence on sales performance of *Bixa*. It further established that placement strategy had a lower negative Beta value in comparison promotion strategy. Therefore, the study concluded that placement strategy had the lowest negative but statistically insignificant

influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

The fourth objective was to examine the influence of promotion strategy on sales performance of *Bixa Orellana* among small scale farmers in Kwale, County, Kenya. The study established that promotion strategy had a negative but statistically significant influence on sales performance of *Bixa Orellana*. It further established that promotion strategy had the higher negative Beta value in comparison placement strategy. Therefore, the study concluded that placement strategy had the highest negative but statistically significant influence on sales performance of *Bixa Orellana* among small scale farmers in Kwale County, Kenya.

The fifth objective was to analyze the moderating influence of Government Policy on *Bixa Orellana* value chain on the relationship between marketing mix strategies and sales performance. Since there was no statistically significant change in  $R^2$  after introduction of the variable in to the specified model, the study concluded that Government policy on *Bixa Orellana* value chain did not have a statistically significant moderating effect on the relationship between marketing mix strategies and sales performance among small scale farmers in Kwale County, Kenya,

#### **5.4 Recommendations**

This section presents a recommendation on the findings on the influence of marketing mix strategies on the sales performance of *Bixa Orellana* by small-scale farmers in Kwale County, Kenya. The recommendations include policy recommendations, practical recommendations and recommendations for further study.

#### **5.4.1 Policy Recommendations**

Firstly, the study recommends that for formulation of policies in the areas of production, processing and marketing of *Bixa Orellana* in the country by the Ministry of Agriculture, Livestock, Fisheries and Cooperatives and the Ministry of Trade and Industry given that the crop has been scheduled by the government. Particularly, the Government of Kenya through can formulate policies that can assist small scale farmers of *Bixa Orellana* to form production and marketing cooperatives with aim of improving sales performance in all *Bixa Orellana* in the country.

Secondly, the study recommends that the department of Cooperatives in the Ministry of Agriculture, Livestock, Fisheries and Cooperatives should capacity built *Bixa Orellana* farmers on importance of cooperative movement as a control marketing channels for the crop. The department should go ahead to group the small scale farmers into buying centre groups and cooperatives where the individual buying centre groups and/or cooperatives can utilize the skills, experiences of individual members and economy of scale to design and implement the 4Ps marketing mix strategies that can be used to market *Bixa* crop in different forms and increase sales performance.

Thirdly, *Bixa Orellana* being an export crop and foreign exchange earner should be supported by the Government in terms of; introduce favourable tax incentives for inputs, developing trade policies to protect the small scale farmers. The government should promote preferential trading agreements and conditions for *Bixa* products with world trading partners to make the Kenya *Bixa Orellana* competitive which in turn will increase and stabilize market demand and stakeholders' confidence. Such achieved confidence will lead to production and marketing of *Bixa* to achieve improvement in the small scale farmers' socio-economic status.

### **5.4.2 Recommendation for Practice**

Firstly, the County Government of Kwale, and other County Governments in *Bixa* growing zones in Kenya, through the Ministry of Agriculture and Trade should support the production of *Bixa Orellana* by small scale farmers by incorporating the crop in the training and market extension services which would advice farmers on how to incorporate the 4Ps marketing mix strategies in the value chain so as to increase sales performance of the crop. This is important because the County Government need to take advantage of comparative advantage of the weather and the type of the soil that supports the growth of the crop and the available market which is the product mix strategy considered in the study.

Secondly, the study recommends that; small scale *Bixa Orellana* farmers in Kwale County should produce quality *Bixa* crop through planting of the right varieties and adopting best agronomic practices and this will attract good prices from customers; *Bixa Orellana* farmers need to use competitive pricing techniques for *Bixa* in order to attract buyers and ensure that the product has a ready market; that, the farmers should promote the product through advertising in electronic media and other techniques both locally and internationally to create awareness of its existence and health benefits of using natural food colours in comparison to the synthetic alternatives; and the farmers should adopt efficient distribution channels and establish buying centres to reduce spoilage and wastage associated with improper storage and transportation of *Bixa* in order to enhance sales performance of the crop and improve their earnings and standards of living .

### **5.4.3 Recommendations for Further Research**

This study was based on the 4Ps marketing Mix strategies (Product, Price, Place and Promotion). The results from the current study contribute to the existing knowledge in

the marketing literature by providing more insight into the application of 4Ps marketing mix strategies on sales performance of *Bixa Orellana* among small scale farmers in Kenya. Many studies in the areas have focused on fast moving consumer goods and little has been done on products like *Bixa Orellana* in the context of small scale farming. The findings of the study have therefore made a contributed towards filling the existing knowledge gap. The study has laid emphasis on 4Ps marketing mix strategies often cited in literature that is; Product, Price, Place and Promotion mix. However, further investigation is required on the finding on the negative influence of promotion strategy on sales performance in the context of small scale farming activities, which is in contrast to marketing theoretical postulations.

As an addition to the existing body of knowledge, this study tested whether government policy of the value chain of *Bixa Orellana* is an important moderating intercept in the relationship between the 4Ps marketing mix strategies and sales performance. The results indicated that government policy of the value chain of *Bixa Orellana* is not the most important moderating intercept in the relationship. Further study should be conducted to analyze the global market factors that affect the sales performance of small scale *Bixa Orellana* produced in Kenya. This will shed more light on Kenya competitiveness in positioning *Bixa Orellana* in the world market. This further study is recommended since the current study did not deal with global marketing of *Bixa Orellana* in the world market.

As far as Studies on methods and methodology implications is concerned, this study used a descriptive survey based on quantitative and qualitative research designs. The study relied on the information given based on the perceptions of the *Bixa Orellana* Small Scale Farmers on the influence of the 4Ps marketing mix strategies on sales performance.

Unavailability of the objective sales performance data is likely to have introduced some biasness in this study and hence to increase the reliability of the findings, future studies should strive to obtain actual financial records from these farmers. Future studies should also consider using a longitudinal approach and incorporate the experimental design to capture the real “effect” “impact” or “influence” in which the current study was only able to capture the perceived effect as opposed to the real effect based on what can be observed before and after in the longitudinal design.



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## APPENDICES

### Appendix I: Letter of Introduction for Data Collection

David Kisa Cheruiyot  
P.O. Private Bag - 20157  
**Kabarak, Kenya**

To the Respondent

Dear Sir/Madam,

#### **RE: To Whom It May Concern**

I am a student at Kabarak University. I am pursuing a PhD degree in Business Administration. In order to fulfill all the criteria for this degree, I am expected to conduct study by writing a thesis. I am currently conducting the following research *“assessment of the influence of marketing strategies on sales performance of small scale Bixa Orellana farmers in Kwale County”*. Discretion will be strictly observed in and you do not need to write your name. The information provided will be used solely for academic purposes. You are free to withdraw from the study if you so wish at any time.

Your response will be highly appreciated.

Thank you.

Yours Faithfully,

David K.Cheruiyot.

## Appendix II: Questionnaire for Bixa Farmers

I am a PhD Student in Kabarak University currently carrying out research to assess the influence of marketing strategies on sales performance of small scale *Bixa Orellana* farmers in Kwale County. This research is purely to fulfill Academic requirements. All information provided will be treated with confidence .You have been identified as respondents to the study, kindly answer the following question by ticking in the appropriate places.

### Section I: General Information.

1. How long have you been growing bixa Crop?
  - a. Less than 5 years
  - b. 5-10 Years
  - c. More than 10 Years
2. What acreage of your land is under *Bixa Orellana*?
  - a. Less than 5 Acres
  - b. 5-10Acres
  - c. More than 10 Acres
3. On Average how much Ksh do you spend on the production of Bixa per Acre.  
Please Mark the appropriate box.
  - a. Ksh. Less than 10,000
  - b. Ksh.10,001 – 20,000
  - c. Ksh 20,001 -30,000
  - d. Above Ksh 30,001
4. How many *Bixa* trees do you have in your farm?
  - a. 50-150 trees
  - b. 151- 250
  - c. 251 and above
5. How many Kgs of Bixa seeds on Average do you get per *Bixa* tree per year?
  - a. 1 – 3.0 Kgs
  - b. 4- 6.0 Kgs
  - c. 7- 9.0 Kgs
  - d. Above 9.0 Kgs

6. After harvesting how much on average do you sell 1Kg of *Bixa* in the market?
- a. Ksh 60-65 [ ]
  - b. Ksh 66 -70 [ ]
  - c. Ksh 71- 75 [ ]
  - d. Ksh Above 75 [ ]
7. How much do you spend per year on informing your customers on your *Bixa* crop per year?
- a. Ksh Less than 1000 [ ]
  - b. Ksh 1001 – 2000 [ ]
  - c. Ksh 2001 -3000 [ ]
  - d. Above Ksh 3000 [ ]
8. How much on Average do you spend per year on distributing your *Bixa* directly to your customers or through middlemen?
- Ksh Less than 5000 [ ]
  - Ksh5001- 10000 [ ]
  - Ksh10, 001 - 30,000 [ ]
  - Above 30,000 [ ]

**Section II: Demographic Characteristics of the Farmers**

1. What is your gender Male [ ] Female [ ]
2. What is your age range? Less than 40 years [ ] 40-50 Years [ ]  
Over 55 years [ ]
3. What is the level of your education  
Primary [ ] Secondary [ ] College [ ]
4. Apart from growing *Bixa*, are you in any income generating engagement ?  
Yes [ ] No [ ]
5. If your answer to question 3 above is yes, what is the nature of your engagement?  
Informal Employment [ ] Formal Employment [ ]
6. What do you do with income from the sales of *Bix*? Educate my family [ ]  
Invest the money [ ] Meet family basic needs [ ]
7. What is the size of your family .....
8. What acreage of your land under other crops?.....

9. If you grow other crops, why do grow both Bixa and other crops?  
 To increase my earning [ ] To cover risk of loss of either Bixa or other crops [ ]  
 ] Maximize use of my land [ ]
10. What is the source of labour on your farm? Family [ ] Hired Labourers [ ]
11. Does the government support the production of Bixa? Yes [ ] No [ ]
12. If the answer to question 11 above is yes, what is the nature of the support?  
 Extension support [ ] Marketing Support [ ] Credit support [ ]

### Section III: Marketing Mix Strategies, Government Policy and Sales Performance

This section presents questions on the four marketing mix strategies; Product, Price, Place and Promotion Mix Strategies. The section also presents questions on Government Policy on Bixa Ollerrana Value Chain and the Sales Performance of the Small Scale Farmers.

#### Part A: Marketing Mix Strategies

13. To what extent do you agree with the following statements regarding the use marketing Product strategy on Bixa? Use a scale of 1 to 5 where 5 is to Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree

SN	Product Strategy	1	2	3	4	5
1	A number of bixa varieties are produced according to market requirements					
2	Adjustments are made to the production of bixa as per customer requirements					
3	Farming technologies that maximize bixa production output are used					
4	The bixa produced on the farm is unique and cannot be easily imitated					
5	Bixa product quality as per customer requirements is taken into consideration in <i>Bixa</i> production.					
6	Bixa is packaged during delivery as per customer requirements					
7	A lot of benefits can be deriveved from Bixa					



### Part B: Pricing Strategy

14. To what extent do you agree with the following statements regarding the use of market Pricing strategy on *Bixa*? Use a scale of 1 to 5 where 5 is to Strongly Agree, 4- Agee, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree

SN	Pricing Strategy	1	2	3	4	5
1	Pricing of bixa is informed by the cost of production					
2	Low prices is charged in order to increase market share – sell every product I produce					
3	Bixa product is sold according to going rate in the market					
4	Sometimes the level of demand of bixa is considered when setting my prices					
5	Bixa is sold according to contract price with buyer					
6	The pricing is pegged on competitor prices					
7	Price discounts for cash payments is offered					
8	Quantity discounts for bulk purchases is offered					

### Part C: Placement strategy

15. To what extent do you agree with the following statements regarding the use of market Distribution strategy on *Bixa*? Use a scale of 1 to 5 where 5 is to Strongly Agree, 4-Agee, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree

SN	Placement strategy	1	2	3	4	5
1	Different channels are used Bixa distribution					
2	Bixa seeds are delivered direct to customer					
3	Middlemen are used in the distribution of bixa seeds to customers					
4	Investment in storage facilities is done to ensure availability of good quality bixa for customers.					
5	Invested in transport facilities like motor bicycle for bixa sales and distribution purposes					
6	Collaboration with other bixa farmers in cooperatives or buying centres in delivering Bixa to customers is done					
7	The cost of delivering Bixa to the factory is minimal					
8	The distribution channel makes Bixa accessible to consumers					

**Part D: Promotion Strategy**

16. To what extent do you agree with the following statements regarding the use of market Promotion strategy on *Bixa*? Use a scale of 1 to 5 where 5 is to Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree

SN	Promotion Strategy	1	2	3	4	5
1	Advertisement in the print media is made for bixa customers in the local market					
2	sales promotion to encourage sales for bixa produce is undertaken					
3	Social media is used to sell my bixa products					
4	Public relations campaign to ensure a positive image for bixa products and the farm is undertaken					
5	Due to cost implications electronic media is preferred for international customers					
6	Electronic media is used to promote Bixa in the County					
7	Promotion strategy used increase consumption of Bixa					
8	Various promotion techniques are used in promoting Bixa					

**Part E: Government policy on *Bixa Orellana* Value Chain**

17. To what extent do you agree with the following statements regarding the Government policy and regulations on Bixa farming Use a scale of 1 to 5 where 5 is to Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree.

SN	Statement	1	2	3	4	5
1	The government regulates Bixa industry and updates farmers on prices					
2	The government provides subsidies like fertilizer and land preparation for bixa farming					
3	Government extension officers provide technical training on Bixa farming					
4	The policy addresses Roads network in <i>Bixa</i> growing areas					
5	There is sufficient information and training on marketing of Bixa crop from Government officials.					
7	There is a Government Agency charged with the promotion,					

	production and Marketing of Bixa crop.					
8	The government extension officers have provide information on new Varieties of Bixa crop to be planted					
9	Government policy on Bixa value chain is effective.					

**Section H: Bixa Sales Performance**

18. To what extent do you agree with the following statements regarding sales performance of *Bixa Olleran*? Use a scale of 1 to 5 where 5 is to Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree and 1 is to Strongly Disagree

SN	Bixa Sales Performance	1	2	3	4	5
1	The sales volume of Bixa crop has increased since the marketing mix strategies were employed by the farmers					
2	The marketing mix strategies have lead to customer loyalty to the small scale <i>Bixa</i> farmers					
3	Kwale Small Scale <i>Bixa</i> farmers are able to sell to the market all the <i>Bixa</i> that they produce					
4	Small Scale <i>Bixa</i> farmers sales revenue has increased					
5	<i>Bixa</i> farming has become profitable in Kwale County					
6.	Sales performance is also measured using contact durations					
7	The marketing mix strategies used reduces lead response time					

### **Appendix III: Interview Schedule for Key Informants**

You are welcomed to take part in this study. The general objective of the study is to assess the influence of marketing strategies on sales performance of small scale *Bixa Ollerana* farmers in Kwale County. This research is purely to fulfill Academic requirements. All information provided will be treated with confidence .You have been identified as a key informant to the study, kindly allow me to ask you some questions on the topic .

1. Product strategy
  - a. Do you produce different Bixa Varieties of Bixa? Explain to me the nature of these varieties.
  - b. Why do you plant different varieties of Bixa?
  - c. Do you use mechanization in the farming of Bixa? Explain to me the type of mechanization.
  - d. Is there anything unique about your Bixa crop that distinguishes it from other farmers? What are the unique characteristics?
  - e. How do you improve the quality of your Bixa crop?
2. Pricing strategy on your *Bixa*?
  - a. How do you arrive at the price to sell your Bixa?
  - b. Do you consider cost of production when setting the selling price of your Bixa? Tell me how you arrive at this cost.
  - c. Do you use low prices as a means of increasing sales volume of your Bixa? Now explain to me steps you follow to lower the price.
  - d. Do you conduct any research to establish price of Bixa. Explain to me the methods you use conduct your research.
  - e. How do you increase demand for you Bixa using Pricing?
3. Distribution Strategy.
  - a. Do you sell you Bixa through different channels? Now explain to me the different channels you use
  - b. Do you sell your Bixa Products through Middlemen? Explain why famers may prefer the middlemen.
  - c. Have you at any time sold your Bixa to farmer buying centre? What are the considerations farmers have when selling to the centres?

- d. Do you have storage facilities for you Bixa before selling? Now explain to me the nature of storage facilities Bixa farmers use to store the seed.
  - e. How do you transport Bixa to the market ?
  - f. Do you collectively distribute Bixa together with other farmers to get better prices?
  - g. You as a Bixa famer, do you belong to any farmer group or cooperative? Explain to me the advantages of cooperative or farming groups to Bixa farmers.
  - h. Do you sell your Bixa directly to the processors? Explain to me the advantages farmers get when they sell directly to the processors.
  - i. Through your farmer groups or cooperative, are you involved in Bixa exports.
4. Promotion strategy on your *Bixa*
    - a. Do you advertise your Bixa to increase Sales? Explain to me the media farmers use in the advertisement.
    - b. How do you apply social media strategy to increase sales of your Bixa?
    - c. How do you apply public relations strategy to increase sales of your Bixa?
    - d. How do you apply electronic media strategy to increase sales of your Bixa?
    - e. What other ways do you pass information about your Bixa to your customers.
  5. Government Policy and Regulations.
    - a. Are there Government rules that you are aware of which may affect your Bixa production? Explain to me the nature of such rules.
    - b. How does the government support Bixa production in your Sub-County?
    - c. Have you ever utilized Government subsidies in fertilizer and Land preparation while growing Bixa. Explain to me the nature of such subsidies.
    - d. What is the nature of government extension services to Bixa farmers?
  6. Discuss with me now how use the above marketing strategies to increase sales performance of *Bixa Olleran*
    - a. Does the quality of your Bixa crop sells for itself
    - b. Do the varieties of Bixa that you grow provide any guarantees of Sales? Explain
    - c. Do you think that the pricing method that you utilize attract customers and increase sales. Explain how.

- d. Do you think that the distribution channel that you use enhance sales of your crop? Tell me the best channel you can recommend to any farmer.
- e. Do you feel that your promotional efforts are effective and led to increased demand for your Bixa? Explain how.
- f. What other methods have you used to enhance your sales volumes?
- g. How have you used these marketing method; product, place price and promotion in enhancing your profitability?

### Appendix IV: Sequencing of Interviewed Respondents

Interviewees Code	Constituency	Issues Addressed
<ul style="list-style-type: none"> <li>i. MF001</li> <li>ii. MF002</li> <li>iii. MF003</li> <li>iv. MF004</li> <li>v. MF005</li> <li>vi. MF006</li> <li>vii. MF007</li>   <li>i. MPPR001</li> <li>ii. MPPR002</li> <li>iii. MPPR003</li> <li>iv. MPPR004</li> <li>v. MPPR005</li> <li>vi. MPPR006</li> <li>vii. MPPR007</li> </ul>	<p>Matugu</p>	<p><b>Product strategy</b></p> <ul style="list-style-type: none"> <li>i. Do you produce different Bixa Varieties of Bixa? Explain to me the nature of these varieties.</li> <li>ii. Why do you plant different varieties of Bixa?</li> <li>ii. Do you use mechanization in the farming of Bixa? Explain to me the type of mechanization.</li> <li>v. Is there anything unique about your Bixa crop that distinguishes it from other farmers? What are the unique characteristics?</li> <li>v. How do you improve the quality of your Bixa crop?</li> </ul> <p><b>Price Strategy</b></p> <ul style="list-style-type: none"> <li>i. How do you arrive at the price to sell your Bixa?</li> <li>ii. Do you consider cost of production when setting the selling price of your Bixa? Tell me how you arrive at this cost.</li> <li>ii. Do you use low prices as a means of increasing sales volume of your Bixa? Now explain to me steps you follow to lower the price.</li> <li>v. Do you conduct any research to establish price of Bixa. Explain to me the methods you use conduct your research.</li> <li>v. How do you increase demand for you Bixa using Pricing?</li> </ul>
<ul style="list-style-type: none"> <li>i. MSD001</li> <li>ii. MSD001</li> <li>iii. MSD001</li> <li>iv. MSD001</li> <li>v. MSD001</li> </ul>	<p>Msambweni</p>	<p><b>Distribution Strategy</b></p> <ul style="list-style-type: none"> <li>i. Do you sell you Bixa through different channels? Now explain to me the different channels you use</li> <li>ii. Do you sell your Bixa Products through Middlemen? Explain why famers may prefer the middlemen.</li> <li>iii. Have you at any time sold your Bixa to farmer buying centre? What are the considerations farmers have when selling to the centres?</li> <li>iv. Do you have storage facilities for you Bixa before selling? Now explain to me the nature of storage facilities Bixa farmers use to store the seed.</li> </ul>

<ul style="list-style-type: none"> <li>i. MSROM001</li> <li>ii. MSROM002</li> <li>ii. MSROM003</li> <li>iv. MSROM004</li> <li>v. MSROM005</li> </ul>		<ul style="list-style-type: none"> <li>v. How do you transport Bixa to the market?</li> <li>vi. Do you collectively distribute Bixa together with other farmers to get better prices?</li> <li>vii. You as a Bixa famer, do you belong to any farmer group or cooperative? Explain to me the advantages of cooperative or farming groups to Bixa farmers.</li> <li>iii. Do you sell your Bixa directly to the processors? Explain to me the advantages farmers get when they sell directly to the processors.</li> <li>ix. Through your farmer groups or cooperative, are you involved in Bixa exports.</li> </ul> <p><b>Promotion Strategy</b></p> <ul style="list-style-type: none"> <li>i. Do you advertise your Bixa to increase Sales? Explain to me the media farmers use in the advertisement.</li> <li>ii. How do you apply social media strategy to increase sales of your Bixa?</li> <li>ii. How do you apply public relations strategy to increase sales of your Bixa?</li> <li>v. How do you apply electronic media strategy to increase sales of your Bixa?</li> <li>v. What other ways do you pass information about your Bixa to your customers.</li> </ul>
<ul style="list-style-type: none"> <li>i. LU001</li> <li>ii. LU002</li> <li>iii. LU003</li> </ul>	Lungalunga	<p><b>Government Policy and Regulations</b></p> <ul style="list-style-type: none"> <li>i. Are there Government rules that you are aware of which may affect your Bixa production? Explain to me the nature of such rules.</li> <li>ii. How does the government support Bixa production in your Sub-County?</li> <li>ii. Have you ever utilized Government subsidies in fertilizer and Land preparation while growing Bixa. Explain to me the nature of such subsidies.</li> <li>v. What is the nature of government extension services to Bixa farmers?</li> </ul> <p><b>How the marketing strategies increase sales performance</b></p> <ul style="list-style-type: none"> <li>i. Does the quality of your Bixa crop sells for itself</li> </ul>



<p>i. LMS001 ii. LMS002 iii. LMS003</p>		<p>ii. Do the varieties of Bixa that you grow provide any guarantees of Sales? Explain</p> <p>iii. Do you think that the pricing method that you utilize attract customers and increase sales. Explain how.</p> <p>iv. Do you think that the distribution channel that you use enhance sales of your crop? Tell me the best channel you can recommend to any farmer.</p> <p>v. Do you feel that your promotional efforts are effective and led to increased demand for your Bixa? Explain how.</p> <p>vi. What other methods have you used to enhance your sales volumes?</p> <p>vii. How have you used these marketing method; product, place price and promotion in enhancing your profitability?</p>
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## Appendix V: Introduction Letter From Board of Post Graduate Studies

**KABARAK**



**UNIVERSITY**

Private Bag - 20157  
KABARAK, KENYA  
<http://kabarak.ac.ke/institute-postgraduate-studies/>

Tel: 0773 265 999  
E-mail: [directorpostgraduate@kabarak.ac.ke](mailto:directorpostgraduate@kabarak.ac.ke)

### BOARD OF POSTGRADUATE STUDIES

25<sup>th</sup> April, 2019

The Director General  
National Commission for Science, Technology & Innovation (NACOSTI)  
P.O. Box 30623 – 00100  
NAIROBI

Dear Sir/Madam,

**RE: DAVID KISA CHERUIYOT- REG. NO. GDB/M/0276/09/09**

The above named is a Doctor of Philosophy student at Kabarak University in the School of Business and Economics. He is carrying out research entitled “**Influence of Marketing Mix Strategies on Sales Performance of Small Scale Bixa Ollerana Farmers in Kwale County, Kenya**”. He has defended his proposal and has been authorized to proceed with field research.

The information obtained in the course of this research will be used for academic purposes only and will be treated with utmost confidentiality.

Please provide him with a research permit to enable him to undertake his research.

Thank you.

Yours faithfully,

**Dr. Betty Jeruto Tikoko**  
**DIRECTOR, POSTGRADUATE STUDIES**



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#### Kabarak University Moral Code

*As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord. (1 Peter 3:15)*



## Appendix VI: NACOSTI Authorization Letter



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

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

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

Ref. No. **NACOSTI/P/19/36671/30003**

Date: **9<sup>th</sup> May 2019**


Dr. David Kisa Cheruiyot  
Kabarak University  
Private Bag - 20157  
**KABARAK.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on *“Influence of marketing mix strategies on sales performance of small scale Bixa ollerana farmers in Kwale County, Kenya.”* I am pleased to inform you that you have been authorized to undertake research in **Kwale County** for the period ending **9<sup>th</sup> May, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Kwale County** before embarking on the research project.

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

  
**DR. STEPHEN K. KIBIRU. PhD.**  
**FOR: DIRECTOR-GENERAL/CEO**

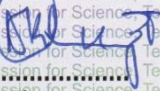

Copy to:

The County Commissioner  
Kwale County.


The County Director of Education  
Kwale County.

## Appendix VII: NACOSTI Research Permit

**THIS IS TO CERTIFY THAT:** **Permit No. : NACOSTI/P/19/36671/30003**  
**DR. DAVID KISA CHERUIYOT** **Date Of Issue : 9th May,2019**  
**of KABARAK UNIVERSITY, 0-20157** **Fee Received :Ksh 2000**  
**NAKURU,has been permitted to conduct**  
**research in Kwale County**  
**on the topic: INFLUENCE OF**  
**MARKETING MIX STRATEGIES ON SALES**  
**PERFORMANCE OF SMALL SCALE BIXA**  
**OLLERANA FARMERS IN KWALE COUNTY,**  
**KENYA**  
**for the period ending:**  
**9th May,2020**



**Applicant's Signature**



**Director General**  
**National Commission for Science,**  
**Technology & Innovation**

**THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013**  
**The Grant of Research Licenses is guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014.**



**REPUBLIC OF KENYA**

**CONDITIONS**

- 1. The License is valid for the proposed research, location and specified period.**
- 2. The License and any rights thereunder are non-transferable.**
- 3. The Licensee shall inform the County Governor before commencement of the research.**
- 4. Excavation, filming and collection of specimens are subject to further necessary clearance from relevant Government Agencies.**
- 5. The License does not give authority to transfer research materials.**
- 6. NACOSTI may monitor and evaluate the licensed research project.**
- 7. The Licensee shall submit one hard copy and upload a soft copy of their final report within one year of completion of the research.**
- 8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice.**

**National Commission for Science, Technology and Innovation**  
**P.O. Box 30623 - 00100, Nairobi, Kenya**  
**TEL: 020 400 7000, 0713 788787, 0735 404245**  
**Email: dg@nacosti.go.ke, registry@nacosti.go.ke**  
**Website: www.nacosti.go.ke**



**NACOSTI**  
**National Commission for Science, Technology and Innovation**  
**RESEARCH LICENSE**  
**Serial No.A 24582**  
**CONDITIONS: see back page**

**Appendix VIII: County Commissioner Kwale, Research Authorization Letter**



**OFFICE OF THE PRESIDENT  
MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT**

Email address: [ckwale@yahoo.com](mailto:ckwale@yahoo.com)  
Telephone: **Kwale 4105**

THE COUNTY COMMISSIONER  
KWALE COUNTY  
P.O. BOX 1  
KWALE

When replying please quote

**Ref. No. ADM/5/7/4CC VOL.2/111**

**14<sup>th</sup> May, 2019**

All Deputy County Commissioners  
**KWALE COUNTY**

**RE: RESEARCH AUTHORIZATION**  
**MR. DAVID KISA CHERUIYOT – PERMIT NO. NACOSTI/P/19/36671/30003**

The above named person from Kabarak University, has been authorized to carry out research on **"Influence of marketing mix strategies on sales performance of small scale Bixa ollerana farmers in Kwale County, Kenya"** for period ending **9<sup>th</sup> May, 2020.**

Please accord him all necessary support.

A handwritten signature in black ink, appearing to read 'E. D. Barasa'.

E. D. BARASA  
FOR: COUNTY COMMISSIONER  
**KWALE COUNTY**

**c.c.**

Dr. David Kisa Cheruiyot  
Kabarak University  
Private Bag - 20157  
**KABARAK**

## Appendix IX: County Director of Education Kwale Authorization Letter



REPUBLIC OF KENYA  
MINISTRY OF EDUCATION  
State Department of Education

Telegrams: "EDUCATION", Kwale  
Telephone: Kwale 040-2104010  
Email Address: [kwalecde@gmail.com](mailto:kwalecde@gmail.com)  
Please when replying quote

THE COUNTY DIRECTOR OF EDUCATION  
P.O BOX 20 – 80403  
KWALE

REF:KWL/CDE/AVOLA/134

DATE: 11/05/2019

Dr. David Kisa Cheruiyot  
Kabarak University  
Private Bag - 20157  
**KABARAK**

**RE: RESEARCH AUTHORIZATION**

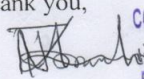
Following your request to conduct a Research on "**Influence of marketing mix strategies on sales performance of small scale Bixa ollerana farmers**" in Kwale County.

You have been granted permission to conduct the research for the duration scheduled.

You are advised that this program should not interfere with normal School learning activities.

A report on the Exercise will be required as feedback.

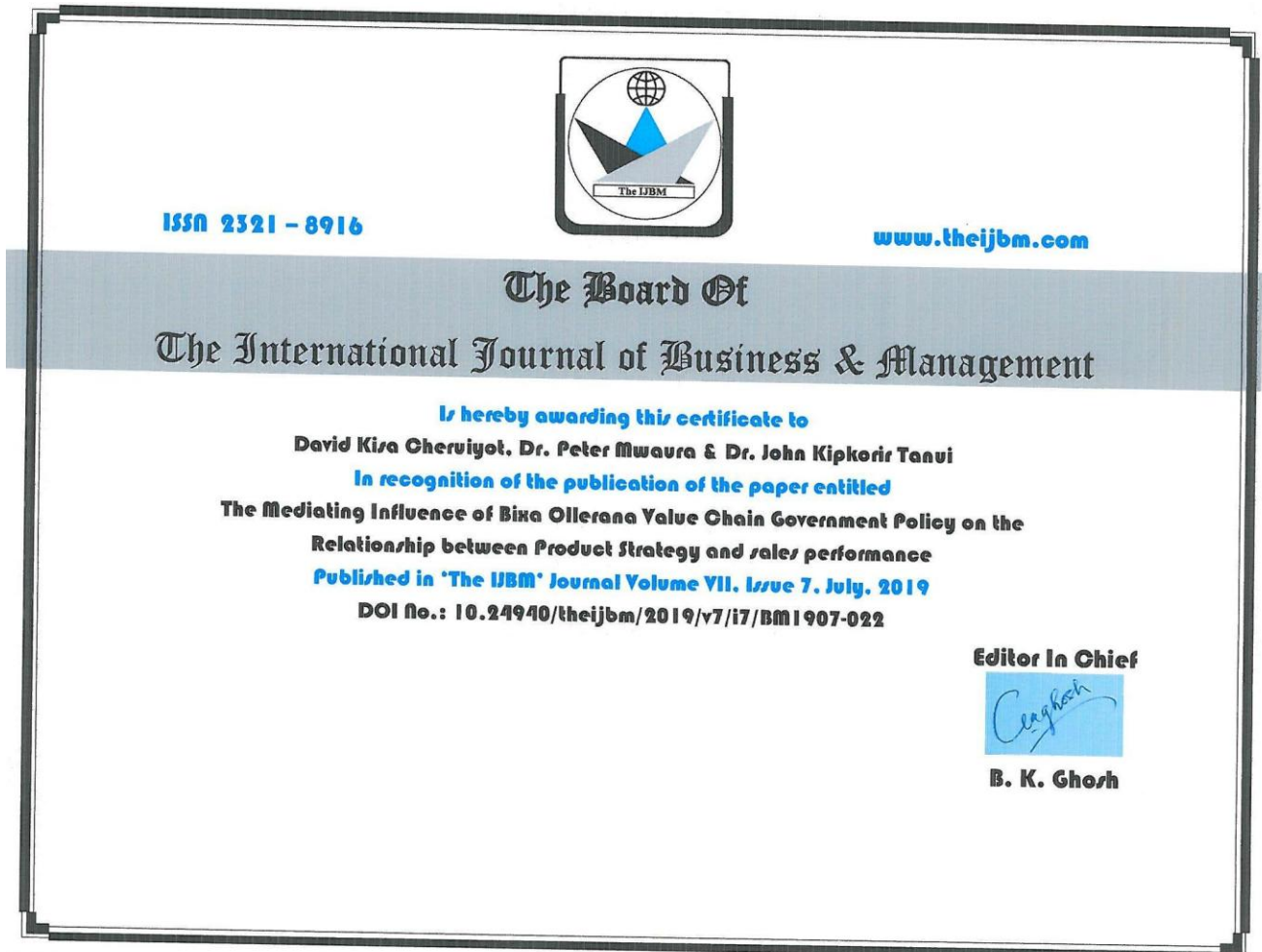
Thank you,

  
COUNTY DIRECTOR OF EDUCATION  
KWALE  
P.O. Box 20 - 80403, KWALE  
JOSIAH KILEI MWAWANA  
FOR: COUNTY DIRECTOR OF EDUCATION  
**KWALE COUNTY**

CC.

- The County Commissioner – Kwale
- ✓ All Sub County Directors of Education – Kwale County

## Appendix X: List of Publications





## International Journal of Academic Research and Development

Peer Reviewed Journal, Refereed Journal, Indexed Journal

ISSN: 2455-4197, Impact Factor: RJIF 5.22

### *Publication Certificate*

This certificate confirms that "**David Kisa Cheruiyot**" has published manuscript titled "**The moderating influence of *Bixa orellana* value chain government policy on the relationship between promotion strategy and sales performance**".

Details of Published Article as follow:

Volume : 4  
Issue : 4  
Year : 2019  
Page Number : 85-93  
Certificate No. : 4-4-21  
Published Date : 01-07-2019

Yours Sincerely,



Nikhil Gupta  
Publisher  
International Journal of Academic Research and Development  
www.academicjournal.in  
Email: [ijard.article@gmail.com](mailto:ijard.article@gmail.com)  
Ph.: 999888931



Appendix XI: Certificates of Conferences Participation





# KABARAK UNIVERSITY

## Certificate of Participation

### Awarded to

***David Cheruiyot***

for successfully participating in the Kabarak University International Research Conference on Business and Economics held from 16<sup>th</sup> – 17<sup>th</sup> October 2019 and presented a paper entitled “*The Moderating Influence of Bixa Ollerana Value Chain Government Policy on the Relationship between Marketing Mix Strategies and Sales Performance*”

### Conference Theme

Unpacking the Big 4 Agenda

**Dr. Patrick Kibati**  
Dean, School of Business and  
Economics

**Dr. Moses Thiga**  
Director Research, Innovation and  
Outreach

#### Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord.

(1 Peter 3:15)



Kabarak University is ISO 9001:2015 Certified