



Conference Proceedings

Kabarak University International Conference on Kabarak University International Conference on Business and Economics

16th -17th October 2019

KLAW Conference Center, Kabarak University, Kenya

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Proceedings of the Kabarak University International Conference on Business and Economics. 17th – 18th September 2019 Nakuru, Kenya. Edited by Christopher M. Maghanga & Geoffrey Kamau.

The Moderating Influence Of Bixa ollerana Value Chain Government Policy On The Relationship Between Marketing Mix Strategies And Sales Performance

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Abstract

Bixa is grown in Kwale, Lamu and Kilifi Counties by small scale farmers and further processed for export by private companies as a natural coloring for butter, margarine, cheese and beverages. Bixa Ollerana crop was recently scheduled as a cash crop by the Kenyan government and its marketing has been left to small scale farmers. There is need for appropriate marketing mix strategies to enhance sales performance of Bixa crop. Since no studies have been conducted on the influence of marketing mix strategies on the sales performance of Bixa Ollerana, the study addressed the research gap. The main aim of this study was to assess the moderating influence of Bixa Ollerana value chain Government Policy on the relationship between marketing mix strategies and sales performance. The study adopted descriptive and exploratory research design mixed method approaches. The target population of the study was 2,419 Bixa farmers registered in Kwale County. A sample size of 106 farmers was drawn using simple random sampling technique. The study used structured questionnaire to collect the required data from the respondents. The study used descriptive statistics and inferential statistics. The interaction of the moderating effect of Government policy on Bixa Ollerana value chain did not change the relationship between marketing mix strategies and sales performance of small scale Bixa Ollerana farmers. Promotion mix strategy remained the only marketing mix strategy (r = -0.286, p = 0.000 < 0.05) that influenced the sales performance of small scale Bixa Ollerana farmers in Kwale County, Kenya. The findings from the study will be of importance to practice, marketing scholarship and Government on Policy formulation marketing of Bixa. The study recommends that the Government of Kenya puts in place a policy framework now that Bixa Ollerana is a scheduled crop, to regulate and promote its production, processing and marketing.

Key words: Marketing Strategy, Marketing Mix Strategy and Sales Performance

1. Introduction

1.1 Background of the study

Saguti (2015) asserts that the marketing mix is a model used by organizations to create and improve their marketing efforts. It is used to blend different factors in such a way that the organization is able to achieve its objectives and meet customers need. According to Palmer (2010), the marketing mix is a conceptual framework that marketing managers use to come up with strategies that can use to target their market and meet consumer's needs. Marketing mix can also be used to develop long term and short term goals.

According to Kotler and Armstrong (2013), marketing mix strategies; product, price, place, and promotion are strategies that organizations use to react to market and internal forces that will enable an organization to achieve their objective. Ghouri, Khan, Malik, and Razzaq



(2011) asserts that organizations that have implemented effective marketing strategies are able to increase their sales performance, market share and achieve a competitive advantage. Marketing strategies is a way of providing an excellent product that contents client needs, present reasonable price and appealing in wider delivery and have a real promotion strategy (Adewale et al, 2013). A study conducted by Mbugua (2013) established that poor marketing affected the growth of SMEs but most small business entrepreneurs are not keen with marketing since they rely on the quality of their products as their marketing tool.

Sales performance is a direct inducement that offers an extra value or incentive for the product to the sales force distributors or consumers with the primary objective of creating an immediate sale (Zhang and Tang, 2010). A sales process refers to the way of applying steps or the actions required to be able to sell a product or service (Eades, 2003). The sales pipeline is a representation of the stages in the sales process, where sales activities generate a flow of sales opportunities (Miller, 2001). A metric is a measuring system, which calculates different trends, dynamics, or characteristics. Organizations use metrics to explain phenomena, diagnose causes, share findings, and project results of future actions (Farris et al., 2010).

Bixa Orellana is a shrub that grows 2-5 meters in height and can be grown from either seeds or cutting. It matures within 3-5 years and has an economic life of 20 years, it produces pods and inside which are about 30-50 seeds which, when mature, contain red pigment and, when dried can be used to produce natural food colorants. (Mercadante and Pfander, 1998).

The main product obtained from *Bixaorellana* is an organic dye present in the seed coat, commercially called 'annatto' in English. Due to its solubility in lipids, it is widely used in the food, beauty and pharmaceutical industries for giving red to orange-yellow colours (Plant Resource for Tropical Africa, 2019). Increasing consumer awareness regarding the harmful effects of artificial additives has resulted in increasing demand for naturally-colored bakery and confectionery products (Venugopalan, Giridhar, Ravishankar, 2011). Annual world production of dried annatto seed at the beginning of the 21st century is estimated at about 10,000 tons of which 7000 tons enter international trade. Kenya exports annually about 1500 tones annatto seed and extracts and after Peru is the largest exporter, particularly to Japan. Côte d'Ivoire and Angola are also exporters (Akshatha, Giridhar and Ravishankar, 2011). In Kenya, *Bixaorellana* is grown by smallholders, particularly in the coastal counties of Kwale, Kilifi, and Lamu. Brazil is the largest producer of Annatto but most of it is consumed internally (Farmbiz Africa, 2019).

1.2 Statement of the Problem

Bixa Ollerana is a cash crop grown in the Kenyan Coast counties of Kwale, Lamu and Kilifi since the 1970s. The Bixa (Annatto) seeds are processed to produce Bixa (annatto) natural food colors. Despite its potential contribution to Kenya's economy and recent scheduling of Bixa Ollerana (GoK, 2019), the crop has not received adequate government attention in terms of policy that guides its production, processing and marketing. Further, the marketing of Bixa Ollerana products remains unclear with the major responsibility remaining with small scale farmers. There is need for appropriate marketing mix strategies to enhance sales performance of Bixa crop.

Previous studies have proved that an effective marketing mix can create and improve sales (Saguti, 2015) and the right marketing mix strategies influence achievements of organizational objectives (Bintu, 2017; Muchoki, 2013; Lovelock, 2011). Since no Studies have n



been conducted on the influence of marketing mix strategies on the sales performance of *Bixa Ollerana* in Kwale County, Kenya, there was need to carry out this study to address the research gap.

1.3 Objective of the study

Investigate the moderating influence of *Bixa Ollerana* value chain Government Policy on the relationship between marketing mix strategies and sales performance of small scale *Bixa Ollerana* farmers in Kwale County, Kenya.

2.1 Theoretical review

2.1.1 Resource-Based Theory

Resource Based View theory (RBV) is defined by Rothaermel (2012) as a theory which emphasizes resources of a firm as fundamental determinants of performance and competitive advantage. It is a perspective that drew more from Penrose (1959) theory of enterprise growth and was popularized by Wernerfelt (1984) and Barney (1991) in their works. This theory was used to analyze product strategy (part of marketing mix strategies) as one of the marketing strategies influencing sales performance of small scale *Bixa Ollerana* farmers.

2.1.2 AIDA Model

The main proponent of the model was Aaker and Joachimsthaler (2000). The AIDA model produces a detailed illustration about the entire procedure of how advertising effects consumer behaviour and the purchase decisions. It is an acronym, which consists of the factors of attention, interest, desire and action, all of them relevant to the relationship between consumer behaviour and advertising. This model was used to analyze the influence of product strategy on sales performance of small scale *Bixa Ollerana* farmers in Kwale, County, Kenya.

2.2 Empirical review

Marketing strategy is the fundamental goal of increasing sales and achieving a sustainable competitive advantage (Rotich, 2016). Marketing strategy includes all basic, short-term, and long-term activities in the field of marketing that deal with the analysis of the strategic initial situation of a company and the formulation, evaluation and selection of market oriented strategies and therefore contributing to the goals of the company and its marketing objectives. Market penetration strategy is also known as concentrated growth strategy since a company can thoroughly develop and exploit their knowledge on a specific market (Ataman, 2010). Organizations that have implemented effective marketing strategies are able to increase their sales performance, market share and achieve a competitive advantage. A marketing mix is a business tool that is used by organizations to achieve a competitive advantage (Ghouri, Khan, Malik, and Razzaq, 2011).

Table 1: Marketing Mix Strategies and Sales Performance Research Gap

Objective Empirical Review	Knowledge Gap
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Extent to which product strategy influences the sales performance of small scale Bixa Ollerana

The extent to which price strategy influences the sales performance of small scale Bixa Ollerana

The extent to which promotion strategy influences the sales performance of small scale Bixa Ollerana

which Edward (2013) established that attitudes toward visual packaging directly influence consumer-perceived food product quality and brand preference. Bixa 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.

which Odhiambo, Liozu (2013) established that the pricing strategy and decision has a significant effect on sales performance.

of 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.

Hamed and Farideddin (2016) established that price promotion had a significant impact on perceived product and service quality.

Bingqun, Kejia, and Tingju (2016) in their research on manufactured goods found 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.

The studies did not analyze the extent to which product mix strategy influences the sales performance of small scale Bixa Ollerana which is the knowledge gap that the current study hopes to fill.

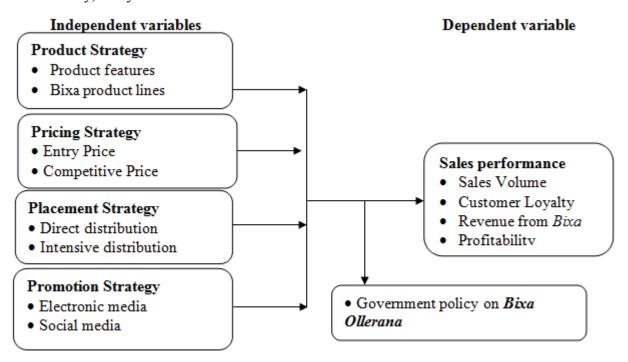
The studies did not analyze the extent to which price mix strategy influences the sales performance of small scale Bixa Ollerana which is the knowledge gap the current study will fill

The studies did not analyze the extent to promotion which mix strategy influences the sales performance of small scale Bixa Ollerana which is the knowledge gap the current study hopes to fill.

2.3 Conceptual Framework



The independent variables of the conceptualization are marketing mix strategies which comprise product, pricing, placement and promotion. The dependent variable is Sales performance of small scale *Bixa Ollerana* farmers in Kwale County Kenya, measured in terms of sales volume, customer loyalty, revenue and profitability from *Bixa*. The moderating variable is the Government Policy on the value chain of *Bixa Ollerana* by small scale *Bixa Ollerana* farmers in Kwale County, Kenya.



Moderating variable

Fig. 1: Conceptual Framework

3.0 Research methodology

The study adopted descriptive and exploratory research design mixed method approaches. The study targeted 2,419 Bixa Ollerana farmers in Kwale County registered by the Ministry of Agriculture (GoK, 2018), Kwale County. Bixa farmers in Kwale was ideal because they are already in the industry, which means they have an interest and are well versed on the factors influencing the production and marketing of Bixa Ollerana.

The sample size of 106 Bixa Ollerana farmers was obtained using the coefficient of variation. The study adopted sampling formula by **Nassiuma** (2000) to arrive at 106 small scale *Bixa* farmers which was the study sample size and Simple random sampling technique used to pick the appropriate sample. Data was analyzed using descriptive and inferential statistics. The relationship between the level of the independent and dependent variables was measured using regression analysis.

4.0 Results and findings of the study



4.1 Multivariate Regression Analysis Results

Table 1: Multivariate Marketing Mix Strategies and Sales Performance Results

	Unstandardized Coefficients		Standardized Coefficients		
		Std.			
Model	В	Error	Beta	t	Sig.
1 (Constant)	4.887	.418		11.703	.000
Product	.050	.055	.087	.909	.366
Price	.127	.115	.101	1.102	.273
Place	083	.061	124	-1.373	.173
Promotion	286	.072	382	-3.980	.000

When product, price, place and promotion market mix were combined in multivariate regression only promotion strategy had significant relationship with sales performance of small scale *Bixa Ollerana* farmers r = -0.286, p = 0.000 < 0.05. This finding is supported by Nashwan (2015); Kurtz & Boone (2011) who establish that marketing strategy have an impact on sales and financial performance and that marketing mix strategies influenced performance of firms. As indicated in Table 1, from the unstandardized coefficients, the following equation was developed: $y = 4.887 + 0.050x_1 + 0.127x_2 - 0.083x_3 - 0.286x_4 + \epsilon$

4.2 The moderating influence of Government policy on *Bixa Ollerana*value chain on the relationship between marketing mix strategies and sales performance

Table 2: Moderating Influence of Government Policy on Bixa Ollerana Value Chain

		Unstandardized Coefficients		Standardized Coefficients		
Ma	odel	В	Std. Error	Beta	t	Sig.
1	(Constant)	4.887	.418	Deta	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 – Place Strategy, PM – Promotion Strategy, GP – Government Policy. The interaction was obtained by multiplying government policy by the individual marketing strategies.



The findings therefore indicated that the introduction of Government policy on *Bixa Ollerana* value chain did not change the relationship between marketing mix strategies and sales performance of small scale *Bixa Ollerana* farmers. Promotion mix strategy remained the only marketing mix strategy that influenced the sales performance of small scale *Bixa Ollerana* farmers in Kwale County, Kenya. The findings on Government Policy is contrary to the Strategy for Revitalizing Agriculture (SRA) also gave policy directions and actions that needed to be taken in each agricultural subsector to achieve the vision of sustainable economic growth. Further, in vision 2030, Agricultural sector is considered critical in delivering the economic pillar component of vision 2030 where small holder agriculture will be transformed from subsistence to an innovative, commercially oriented and modern agriculture (GoK, 2010).

5.0 Conclusions and recommendations

5.1 Conclusions

The study established that marketing mix strategies influenced the sales performance of small scale *Bixa Ollerana* farmers in Kwale County, Kenya. This was because promotion strategy was the only marketing mix strategy that had an influence on sales performance of small scale *Bixa Ollerana* farmers whereas product, price and place marketing mix strategies, did not have any influence on sales performance. The study also established that Government Policy did not have a 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.

5.2 Recommendations

The study recommends that *Bixa Ollerana* being an export crop and foreign exchange earner should be supported by the Government in terms of developing policy that promotes *Bixa Ollerana* production, processing and marketing now that the crop was recently schedule. The government should promote preferential trading agreements and conditions for *Bixa* products with world trading partners to make the Country's *Bixa Ollerana* products competitive which in turn will increase and stabilize market demand and stakeholders' confidence.

This study was based on the 4Ps tangible marketing Mix (Product, Price, Place and Promotion). A similar study should be conducted to assess the influence of marketing mix strategies on the sales performance of small scale *Bixa Ollerana* farmers based on the intangible 3Ps marketing mix strategies (Process, People and Physical appearance).

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