

## The impact of mix marketing strategies on the sales of agricultural products: a case study in Johor, Malaysia

<sup>1</sup>Saili, A.R., <sup>2</sup>Bachik, N. and <sup>2,\*</sup>Mohammad Azam, N.H.

<sup>1</sup>Faculty of Plantation and Agrotechnology, Universiti Teknologi Mara, Cawangan Sarawak, Samarahan Campus, Jalan Meranek, 94300 Kota Samarahan, Sarawak, Malaysia

<sup>2</sup>Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA, Cawangan Melaka, Jasin Campus, 77300 Merlimau, Melaka, Malaysia

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### Abstract

This research was conducted to understand the impact of the 7Ps Marketing Mix Strategies (i.e., product, price, promotion, place, people, physical evidence, and process) on the sales of agricultural products. The retailers' perspective of the influence of the strategies on their sales was analyzed to fully understand the effect that each element has on sales improvement. Since each of the seven Ps of the marketing mix has a different impact on sales, which varies from product to product and market to market, each P has a unique level of influence on sales. This study employed descriptive analysis and multiple linear regression to achieve the research objectives. The data was collected from 150 agricultural product sellers from different stores in Johor by employing a closed-ended survey questionnaire. The respondents were selected using convenience sampling, and the data were analysed through multiple linear regression analysis. It was found that the majority of the retailers were particularly new in the business with 64.9% of them having 2 to 4 years of experience. The findings also revealed that among the 7Ps marketing mix strategies, only two strategies, namely place, and people were found not significant in influencing sales. Moreover, among the five strategies that significantly influenced sales, the promotion strategy showed the highest influence compared to others. This study can help sellers or relevant agencies understand the most efficient strategies for increasing sales of agricultural products, especially in the post-pandemic business environment.

## 1. Introduction

About a century ago, farmers produced food largely for their own consumption or to trade with others in their community and surrounding area. In contrast, today's production environment has shifted from self-reliance to commercialization due to an increase in demand, hence food production and sales income can rise simultaneously. Agriculture is one of the sectors that despite being categorized as essential, still remains the lowest-paying industry. Thus, farmers or sellers are still unable to gain higher profits despite the consistent demand for food crops from consumers. Marketing plays an essential role in increasing sales of any product. The most renowned 7P's marketing mix strategies have been used throughout different types of products to identify the most effective strategies that sellers can use to increase sales.

Different types of products were affected the most by different strategies. Although price often shows the

biggest influence in marketing strategies, other elements such as place, promotion, people, process, physical evidence, and product also play an important role in determining the profit. Sellers or retailers should recognize their target consumers' understanding, preferences, and perceptions. It is acceptable, as marketing tactics can indeed help select the most appropriate strategies for the agriculture industry, ensuring the best conclusion for both parties. Retailers should pay attention to the concept of the marketing mix strategies in order to match the expectations of consumers, as this will make it easier for them to execute suitable methods for selling agricultural products. Multiple businesses have been looking into ways to improve retail services in order to reach unit and corporate goals. As a result of this, effort needs to be put into creating a cohesive strategy that helps differentiate and enhance their items going forward. The findings of studies on products have demonstrated that at least one attribute in the marketing mix has an impact on sales

\*Corresponding author.

Email: [hazwaniazam@uitm.edu.my](mailto:hazwaniazam@uitm.edu.my)

(Keramati *et al.*, 2012; Saguti, 2015; Bintu, 2017). After considering the data from a few research it becomes clear that product sales may be affected by the marketing mix, and not necessarily by changes in product design or performance. This has become the problem statement for this study.

This research aimed to know the influences of 7P marketing mix variables on sales of agricultural products in Johor. Products are developed to satisfy the desires and needs of the consumers. The study by Holmes and Paswan (2012) looked at how customers reacted to new packaging designs in the product industry. The study found quality and price were proven to impact customers' purchasing intentions meanwhile the low-priced packaged goods receive less attention than those that are more expensive. However, companies face challenges in creating products that fit the needs of the consumers. When the needs of the consumers change, the company has to produce different goods or develop improved goods to meet the needs of consumers or launch new products (Hoseini and Haghighi, 2020).

Among all the strategies, price is the only mixed element that generates revenue. Therefore, it is essential to know the prices for sorting the cost and also for profit estimation. It is vital to know the prices of the customers willing to pay and the market demand for the products and services. Pricing is an excellent indicator of the firm's positioning in the market against competitors. Competitors should be considered when setting prices. Deonir Gabriel Evandro and Fabia (2017) stated that value-based pricing enhances profits. Setting prices can serve a variety of business goals, including maximising profits and covering expenditures, increasing demand, growing a customer base, or supporting a company's strategic position.

Place majorly comprises where the consumers purchase products. Place contains business activities that reach consumers (Kotler and Armstrong, 2016). A place can either be a physical facility, application, or an internet website. Some firms have adopted the physical presence and the online availability to avail the products to the market and competitors. To assist in the distribution, some companies have adopted intermediaries and go-betweens with fixed locations and storage facilities. According to Laswai's (2013) research, a company's sales performance is affected by the effectiveness of various channels of distribution models. A total of ninety people participated in the study. In addition to interviews and questionnaires, a documentary review was conducted to gather information. The research shows that the channel of distribution has a positive impact on the achievement of sales. Promotion assists the organization in helping the public to know

about their products, favourable prices, and product availability. The promotion aims at generating interest and creating awareness among the buyers.

In the study conducted in Ghana's Automobile Industries, Tandoh and Sarpong (2015) found that sales promotions have a positive impact on the performance of the business. Advertising, sales promotion, personal selling, publicity, and direct marketing can communicate value to customers (Kotler and Armstrong, 2016). A company's performance can benefit from the usage of sales promotion methods such as bonuses, discounts, and contest drawings. People in the organization's marketing mix are those at the forefront during the interaction with the customers. They process customer enquiries, orders, and complaints through their interactions with the customers via social media, calls, and digital chats. They are the link and representation of the organization to the customer (Khodakarami *et al.*, 2021). People are knowledgeable about the organizational products and services, use of the products and services, can access relevant data and information and have daily approaches and attitudes in correctly dealing with the customers.

Physical evidence provides a tangible indication of the organization's quality of experience. It is particularly significant when the customer has never bought from the organization initially and needs to be reassured and required to conduct payment before delivery of goods and services (Othman *et al.*, 2020). For organizations, the physical evidence consists of a website containing company contacts, testimonials, and case studies. Customers' decision-making can be influenced by physical evidence such as packaging, cleanliness, user website experience and brochure design. Physical evidence encourages analysing a product's packaging through the perspective of a critical prospect. Knowledge about the steps in the customer journey, from enquiring about the product and seeking information about the products to buying the products, helps develop the practical process for the customers' positive experience and satisfaction (Lim, 2021).

The process looks into activities after the customer makes an order and ensures the reviews are generated for purchases. The organization should also consider adopting technology for efficient processes to ensure a great customer experience. All marketing mix strategies played important roles in ensuring producers or sellers can effectively promote their businesses. Effective marketing can help in achieving the businesses' main objective which is increasing their profits. Oftentimes, each element of the marketing mix can be studied independently to see the effect of each element on the sales although it can also be dependent on each other. To effectively market a product, it is especially important to

highlight the difference of the existing product with others in the market. By differentiating the product sold by the business, the price can now be set either according to the cost or value of the product. In determining the distribution channel, it is important to consider the type of product because the correct channel will determine the availability of the product for the consumer. As for promotion, the main objective is to communicate information about the product to the consumer so that they are aware of the existence and value of the product.

The addition of another three elements such as people, physical evidence, and process to the traditional 4P's marketing mix has proven to give better insight to further improve the marketing strategy. Thus, the objective of this study is to investigate the main factors that influence the impact of mixed marketing strategies on the sales of agricultural products in Johor.

## 2. Materials and methods

This study was conducted on sellers in the whole of Johor region in 2022. Johor is selected due to its potential as one of the main agriculture producers for both Malaysia and also Singapore. It is also due to the time restriction which limits the study in the Johor area only. The data was collected by using closed-ended questionnaires. The questionnaires were distributed to 150 retailers in Johor using convenient sampling techniques. The questionnaires distributed were intended for retailers or people involved in selling agriculture products between the ages of 20 and 40. The study considered the retailers' viewpoints on which marketing mix strategies influenced their sales after the pandemic. Each respondent was interviewed through a set of questionnaires for the researcher to get their points of view on marketing mix strategies during the year 2021. The questionnaire is divided into three sections. Section A covers the demographic background of respondents while Section B identifies the sales of agricultural products. Lastly, Section C focuses on 7Ps marketing mix strategies. Likert scales are used in order to ascertain the marketing strategy based on the marketing mix's seven P. Respondents had to give a score on each attribute of marketing mix variables using a scale from 1 which represents strongly disagree with the questionnaire statement to 5 which represents strongly agree. In this study, the data is analysed by using descriptive and multiple linear regression. The descriptive analysis is conducted to give an overview of the respondents' background while multiple linear regression analysis is conducted to determine the relationship between the 7Ps marketing mix strategies with sales.

## 3. Results and discussion

### 3.1 Reliability test

According to Zikmund (2003), a good questionnaire, as a research instrument, must be valid and reliable. It is valid if it can measure what should be measured, meanwhile, it is reliable if it is consistent in measuring what should be measured. Based on the validity and reliability analysis using the software SPSS, the instrument of this research fulfilled the criteria to be valid and reliable as shown in Table 1. Based on the results, all items show Cronbach's alpha value of higher than 0.7, therefore, all items show high internal consistency and are suitable for this research.

Table 1. Reliability test results.

Variable	Cronbach's Alpha	Test
Product	0.819	Reliable
Price	0.810	Reliable
Place	0.756	Reliable
Promotion	0.962	Reliable
People	0.977	Reliable
Process	0.945	Reliable
Physical Evidence	0.924	Reliable

### 3.2 Descriptive analysis

Table 2 shows that the respondents are dominated by males with 63.3% and most of them are between 31 to 40 years old (45.3%). All other respondents are between 21 to 30 years old (33.23) and more than 40 years old (21.4%). More than half of the respondents are not highly educated as 65.3 percent of them only attained secondary education. Only 24% of the respondents obtained higher education. In terms of working experience, only 9.9% of the respondents have worked in

Table 2. Socio-demographic data of farmers (n = 150).

Socio-demographic Profile	Frequency	Percentage (%)
<b>Gender</b>		
Male	95	63.3
Female	55	36.7
<b>Age</b>		
21 - 30	50	33.3
31 - 40	68	45.3
More than 40	32	21.4
<b>Level of education</b>		
Primary	16	10.7
Secondary	98	65.3
Diploma	25	16.7
Degree	11	7.3
<b>Work experience (years)</b>		
2 - 4	98	64.9
5 - 7	37	24.5
8 - 10	15	9

Table 3. Regression analysis for the year 2021.

Model	R	R Square	Adjusted R Square	Std . Error of the Estimate
1	0.916a	0.828	0.817	0.75432

Note: Predictors: (Constant), Product, Price, Place, Promotion, People, Physical evidence, Process. Dependent Variable: Sales. retail for 8 to 10 years while the majority of them only have 2 to 4 years of working experience with 64.9%.

### 3.3 Multiple linear regression

The result summary of multiple linear regression analysis using the software SPSS is shown in Table 3 for the year 2021.

Based on Table 3, the correlation value between the independent and dependent variables is found to be 0.916.  $R^2$  was 0.828, meaning that just 82.8% of the sales volume of agricultural products annually was influenced by the independent variables in this study, while the remaining 17.2% was influenced by other variables beyond the variable in this research. An  $R^2$  of 0.828 indicates that the independent variable influenced the sale volume of agricultural products annually. This is a significant finding. Thus, the independent variables in this study can explain most of the dependent variables.

Table 4 shows results for multiple regression between independent variables in this study which are product, price, place, promotion, people, physical evidence and process against dependent variable which is sales. According to the table, product, price, promotion, process, and physical evidence show a p-value less than 0.05. Thus, these five independent variables show a significant relationship towards sales. It is also mentioned in the coefficient table that the highest estimated partial regression coefficient was 0.320 on the promotion, meaning that among the five independent variables, the most influential marketing mix variable on the sales volume of agriculture products annually during the year 2021 is promotion. This is supported by Afande (2015) who studied the impact of promotional mix elements on the sales volume of Kenyan financial institutions at Kenya Post Office Savings Bank. The study found that sales promotion and personal selling were found to have the greatest influence on revenue. When informing and promoting potential customers, businesses can apply a variety of strategies. Yasa et al. (2020) also found that promotional strategy has a positive and significant influence on competitive advantage that in turn significantly influences marketing performance. Promotion can help inform consumers about the advantages of the products. Even with a quality product, the appropriate price, and a well-thought-out local strategy, firms may not reach their desired sales volume without relaying the information to the consumer, thus promotion is important to increase sales volume.

Price is undoubtedly one of the main important elements that can influence consumer purchase decisions (Saidani and Sudiarditha, 2019; Büyükdag et al., 2020; Liu et al., 2022). Karunarathna et al. (2020) stated that in green purchasing intention, pricing of the products is found to be significantly influence the green purchase intention. So, even for agricultural products, price does play an important role in influencing sales. The results stated that physical evidence, processes, and products also play significant roles in influencing sales. Kusumawati et al. (2021) identify price and physical evidence to have an impact on purchase intention while product and promotion influence the purchase decision. Based on the results, place and people do not significantly influence sales. It is no surprise since in 2021, almost a year after the pandemic, people are more comfortable with purchasing items online. Ho et al. (2022) who found that physical evidence influences purchase intention on live streaming platforms, while in the case of online music products, Burlea-Schiopoiu et al. (2022) studied the impact of food delivery during the pandemic and found that ease of access without being to the physical store itself influences consumer purchase decisions. The perceived risk is higher during the pandemic and even after one year of the event, consumers still prefer to shop online or use delivery to avoid going to the physical store and interact with other people to reduce the risk of spreading the virus. Thus, it is no surprise that both place and people are not influencing the sales.

Table 4. Results of coefficients for 7Ps marketing mix strategies and sales.

Model	Standardised Beta	t	Sig.
(Constant)		3.063	0.001
Product	0.200	3.939	0.000
Price	0.275	3.737	0.000
Place	0.287	0.097	0.930
Promotion	0.320	2.433	0.016
People	0.051	0.058	0.955
Physical evidence	0.100	2.197	0.030
Process	0.281	2.866	0.003

Note: Dependent Variable: Sales.

## 4. Conclusion

In conclusion, this study was able to achieve the objective to identify the relationship between marketing mix strategies and the sales of agricultural products in

Johor, with the impact of each marketing mix element on the sales of agricultural products through the multiple linear regression analysis. Considering place-to-promotion trends. In the past, people went to the store to buy stuff, but now everyone buys them online, thereby the place is no longer important. Thus, in 2021 sellers may require additional promotion. If customers can access any internet business, they can compare prices and choose the best deal, therefore everything may be sold online. Thus, E-marketing has been proven to have a positive impact, as well as direct marketing's potential to increase profitability. Furthermore, to compare pricing in a physical store, it is necessary to visit each location. Therefore, consumers will buy from retailers with the most tempting promotions.

### Conflict of interest

The authors declare no conflict of interest.

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