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SUSTAINABLY NURTURING TOURISM, HOSPITALITY AND WELLNESS INDUSTRY FOR A BRIGHTER TOMORROW

Factors Influencing the Supply of Pineapples in Johor, Malaysia

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ABSTRACT

The pineapple (Ananas comosus) is the most economically vital plant of the bromeliad household and is a tropical plant suitable for eating fruit. This study was conducted to investigate the factors influencing the supply of pineapples in Johor, Malaysia. The independent variables in this study were farming experience, farm size, price of pineapple and cost of inputs, while the dependent variable was the quantity of pineapple supplied in Johor, Malaysia. This study had four objectives to investigate the factor farming experience in relation to the quantity of pineapple supplied in Johor, Malaysia, to analyse the farm size in relation to the quantity of pineapple supplied in Johor, Malaysia, to investigate the factor price of pineapple in relation to the quantity of pineapple supplied in Johor, Malaysia, and to investigate the factor cost of inputs in relation to the quantity of pineapple supplied in Johor, Malaysia. A questionnaire was used as the research instrument for data collection, and a quantitative research approach was used. In this study, a baseline sample of 103 respondents was collected and studied. A Google form was used for data collection. The results show that all the independent factors (farming experience, farm size, price of pineapple and cost of inputs) examined in this study have significant relationship with the dependent variable (quantity of pineapple supplied in Johor Malaysia) among Pontian farmers. This study will help to identify the factors influencing the quantity of pineapple supplied in Johor Malaysia, as well as provide a better understanding and knowledge of farming experience, farm size, price of pineapple and cost of inputs.

Keywords: Quantity of pineapple, Farming Experience, Farm size, Price of pineapple, Cost of inputs

INTRODUCTION

Pineapple is regarded as an economically significant horticulture product with significant health advantages and attractive sales potential in the worldwide market for foreign exchange profits, resulting in increased revenue for farmers. The pineapple market in Malaysia was decreasing day by day. This is because of Malaysia experiencing fierce competition with foreign countries such as Thailand, and Myanmar. Previous research on the pineapple industry in Malaysia centred mainly on chemical factors. However, several factors are involved in the decline of the pineapple market. One of them is the limited number of farmers. Many rural farmers in Malaysia suffer from the economy in light of the pineapple's market. It has proven when the whole country must witness the cases of fruit market decline, especially thepineapple now in 2022. This issue should be highlighted because it clearly shows that the collapse of the pineapple market is a big issue and it can have a bad impact for the national economy. The result of the study is helpful for farmers, traders and service providers involved in the production and marketing of fruits in the study area. In addition, the findings of the study also provide information for policy makers with a view of the whole market system that can be used as a frame-work how to formulate fruit marketing development programs and improve

efficiency of the fruit marketing system. Furthermore, the study canbe used as references for further research.

Several objectives of this study were establish as follows:

4. To examine the farming experience factor towards the quantity of pineapple supplied in Johor,Malaysia.
5. To analyse farm size towards the quantity of pineapple supplied in Johor, Malaysia.
6. To investigate the price of pineapple factors towards the quantity of pineapple supplied in Johor,Malaysia.
7. To examine the cost of inputs factors towards the quantity of pineapple supplied in Johor, Malaysia.

SIGNIFICANCE OF THE STUDY

Despite being a significant national export, commercial varieties of pineapple have not yet been thoroughly studied and compared in terms of their physical, chemical, biological, and organoleptic qualities. The aim of this study was to determine and compare the physicochemical parameters, bioactive substances, antioxidant capacities, enzymatic activity, and sensory traits of various commercial pineapple cultivars in Malaysia. The goal of this study is to increase pineapple consumption based on the nutritional value of different commercial cultivars of pineapple, facilitate the marketing of cultivars with known fruit qualities and potencies, and provide useful data for future hybridization among these cultivars.

LITERATURE REVIEW

Quantity supply

The range of products or services that suppliers produce and promote at a given market charge is known as the quantity supplied. Price fluctuations decide how a great deal supply producers absolutely deliver to the market, subsequently the supply quantity differs from the proper supply quantity. The rate elasticity of supply describes how supply fluctuates in response to rate changes. (Will Kenton, 2021).

Price Of Pineapple

Price is the value or money that customers give up in return for a particular item that meets their needs and wants. Prices are an economic mechanism for distributing offers to customers in the market. They also serve as an indicator of how much a supply is in demand and how much it is offered or available. A product's price is the

overall value of the supply, which includes the cost of raw materials and services needed to manufacture the supply. The pricing of a service takes into account all the factors that contribute to making the service what it is. (Siddhi Kamble, 2022).

Experience

Experience is defined as information or insight gained through practical participation in an action or event. This is usually different from the kind of theoretical knowledge gained through reading books or obtaining factual information. (Yogapedia, 2022)

RESEARCH HYPOTHESIS

The literature review highlighted independent variables like farming experience, price of pineapple, farm size and cost of inputs affecting quantity of pineapple supplied in Johor, Malaysia. Based on the literature discussed, the hypotheses of this study were summarized in the following manner:

H1: There is a significant relationship between farming experience and the quantity of pineapple supplied in Johor, Malaysia.
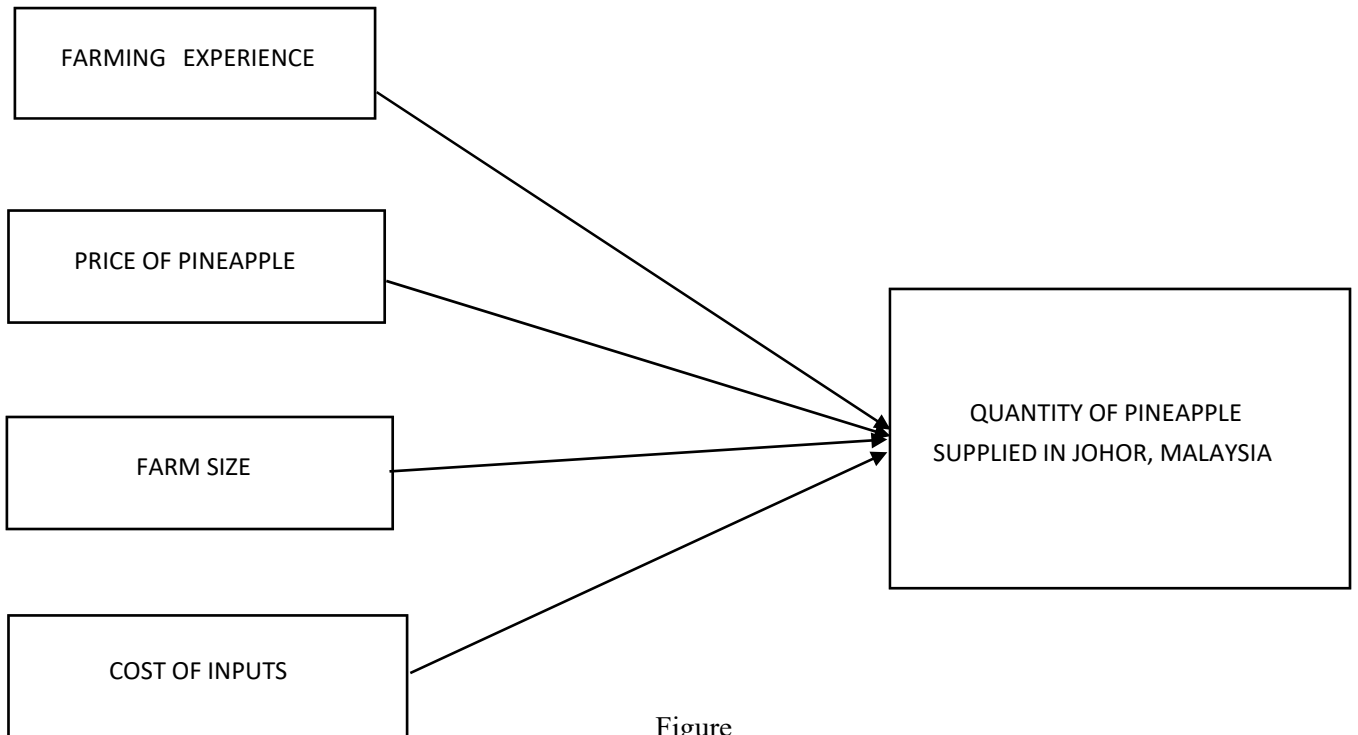
H2: There is a significant relationship between the farm size and the quantity of pineapple supplied in Johor, Malaysia.

H3: There is a significant relationship between the price of pineapple and the quantity of pineapple supplied in Johor, Malaysia.

H4: There is a significant relationship between cost of inputs and the quantity of pineapple supplied in Johor, Malaysia.

RESEARCH FRAMEWORK

The Figure 1 below shows the research framework used for this study.

Figure

METHODOLOGY

Research Design

This study uses a quantitative method. The design of this study can be divided into three types: descriptive, exploratory and causal. The project investigates why. The goal of this research is to understand how the connection among dependent and independent factors affects current norms together with assumptions.

A cross-sectional technique was used to collect data for this investigation. This type of study is beneficial because it gathers information about correlations between factors at a specific moment in time. Surveys can be utilized for this purpose because they are relatively cheap and take very little time.

Data Collection

The major data gathering strategy in this study was a questionnaire survey. The questionnaire was passing by online. Surveys are generally considered a reliable and effective method of gathering quantitative information from large populations in a brief period of duration. In addition, self-administered questionnaires can quickly collect a large amount of information from many respondents without the need for observers. Therefore, questionnaires will be used to collect data for this study.

Target Population

The word "population is a collection of individuals, occurrences, or things that are fascinating about which researchers want to learn more (Kumar, 2013; Memon et al., 2020). Therefore, Pontian farmers were picked at random from a list of registered pineapple farmers in Pontian, Johor, by the Malaysian Pineapple Industry Board (MPIB).

The fast increase of the world populace and growing purchaser attention of the fitness advantages of fruits have led to a global extend in demand for fruits (Reid and Buisson, 2001; Sabbe et al., 2008). This advancement

generated an enormous chance to raise the fruit zone's contribution to gross national income (GNI) and improving incomes for farmers. Pineapple represents a strategically placed fruit among all fruits due to the alternate is aimedto industrialized nation such as Japan, the United States, and the European Union. (Coveca, 2002).

Sample Size

A sample is a group of respondents chosen as most representative of the general population. To get an accurate picture or improve confidence, sample size is critical. Sample size helps to understand a group of individuals selected from the wider community that is believed to accurately reflect the population under study. Sample size is usually determined by population. 103 of pineapple farmers will be chosen through random sampling from the Malaysian Pineapple Industry Board (MPIB) listing of registered pineapple farmers in Pontian, Johor. The study sample (n=140) was determined as in accordance with Krejcie and Morgan (1970) to obtain an appropriate sample size.

Sampling Method

The fourth step is to calculate the sample size. A random sample must have an acceptable size so that it can be generalized and to avoid sampling error or bias. The fifth step is data collection. The next stage is to gather data after selecting the target population, sampling frame, sampling process, and sample size. Response rate testing is the final stage of sample collection. The number of people that volunteered to participate in this study is referred to as the response rate.

Data Analysis

In this study, descriptive statistics are used to characterize the data and describe its essential characteristics. Descriptive statistics, according to Gupta et al. (2019), provide straightforward descriptions of the sample and the measures. On the other hand, the researchers also use Pearson's Correlation Coefficient Analysis in this study. Correlation is to identify both the independent and dependent variables and is a test to show whether there is a relationship between both variables. Besides that, the researcher utilized Cronbach's alpha to assess the accuracy of the questionnaire results and the quality of the output. Both dependent and independent variables were studied based on Cronbach's alpha coefficient. Therefore, the researchers had been utilized the version 28.0 of the Statistical Package for Social Science (SPSS) to analyze the data.

FINDINGS

Profile of Respondents

Demographic	Categories	Frequency (N)	Percentage (%)
AGE	21-30 years	30	29.1 34.0
	31-40 years 40	35	36.9
	years above	38	
RELIGION	Muslim	48	46.6 13.6
	Christianity	14	14.6
	Hinduism	15	25.2
	Buddhism	26	

ETHNICITY	Malay	50	48.5 37.9
	Chinese	39	13.6
	Indian	14	
MARITAL STATUS	Single	38	36.9 47.6
	Married	49	6.8
	Divorced	7	8.7
	Widow	9	
LEVEL EDUCATION	Pmr/pt3 Spm	18	17.5 43.7
	Diploma	45	16.5
	Degree	17	21.4
	Master	22	1.0
		1	

Table 1: Demographic Analysis

Table 1 shows 103 profiles of the respondents and most of them are at the age of 40 years above which is 36.9% from the total of the sample. The lowest frequency respondents' age is 21-30 years with 29.1%. Meanwhile for ethnicity, the highest respondents are Malay with 48.5%. The race of Indians has the lowest frequency which is 13.6%. For marital status, most of the respondents are single with 47.6% and married respondents only 36.9% of them. As for the level of education stated that 43.7% of SPM students are the majority total respondents out of 1.0% is the lowest frequency of the respondents that are MASTER students. Thus, the data accurately reflect the real demographic compilation of the factors influencing the supply of pineapples in Johor, Malaysia

Table 2: Descriptive Analysis

VARIABLE	ITEMS	N	MEAN	STANDARD DEVIATION
Farming Experience	Pineapple farming faces challenges such as weather conditions, pests and diseases that can affect crop yields.	103	3.92	0.871
	Pineapple farming requires access to proper agricultural resources such as land, waterand seeds in order to grow pineapples efficiently.	103	4.04	0.803

	Pineapple farmers must constantly learn and adapt tonew growing methods and technologies.	103	4.07	0.889

		103	3.86	0.864
	Pineapple farmers face social and economic challenges, such as land tenure issues and market access, that can impact their farming experience	103	3.86	0.864
	Pineapple farmers must constantly adapt their cultivation methods to adapt to changing market demands and consumer preferences.	103	3.96	0.791

		103	4.11	0.791
Farm Size	The quantity of pineapple planting depends on the area (hectares) of the farm.	103	4.11	0.791
	Commercial and organic fertilizers used when growing pineapples will affect the quality of fruit	103	4.09	0.781
	The quantity of pineapple production depends on the type of soil used for planting.	103	4.11	0.726
	Pineapple cultivation is not too difficult because it can be planted in all types of soil.	103	3.99	0.975
	The size of the farm is not one of the reasons for the quality of pineapples to be damaged.	103	3.96	0.874
	The larger the farm area, themore pineapples the grower can produce.	103	4.17	0.678
Price of Pineapple	Pineapple prices according to the current market.	103	4.19	0.768
	The price of pineapple varies depending on the location and season.	103	4.00	0.767
	The price of pineapple may be affected by factors such as transportation costs, import and	103	4.06	0.739

	export tariffs and demand/supply dynamics.			

		103	4.18	0.789
	Pineapple prices can fluctuate over time as due to changes inweather or disasters that influence pineapple production.			
Cost of Inputs	The cultivation of pineapples requires considerable investment in land, labor and pesticides.	103	4.01	0.773
	Due to the costly expense of enhanced planting materials, I have resorted to traditional planting materials.	103	4.02	0.779

		103	4.10	0.786
	I use family labor due to the high costs of labor.			
	Pineapple production involveshigh transportation costs due to its perishable nature.	103	3.99	0.869
	One of the main aspects of pineapple production is ground preparation, for which suitable machinery is required.	103	4.13	0.776
	Each month, many machineries and energy will beutilized for pineapple cultivation.	103	4.07	0.889

Table 2 indicated the number of respondents, as well as the mean and standard deviation of the independent and dependent variables. The highest mean for the independent variables was the price of pineapple, which was 4.1092, followed by farm size, which was 4.0712, cost of inputs, which was 4.0518, and farming experience, which was 3.9709. The dependent variable's mean was 4.0558. Descriptive statistics are particularly important because they provide an easy overview of information in numbers and graphs. Descriptive statistics, in particular, is a technique for collecting data, processing data, describing and analysing all data. The most important aspect of descriptive statistics is that they express facts in the structure of data and aid in data understanding. In descriptive statistics, there are three important measurements. It is a central tendency measure, a variation measure, and a role measure.

Table 3: Reliability Analysis

Variable	Number of Items	Cronbach's Alpha Coefficient	Strength of Association
Farming Experience	5	0.894	Very Good
Farm Size	6	0.828	Very Good
Price of Pineapple	4	0.842	Very Good

Cost of Inputs	6	0.861	Very Good
Quantity of Pineapple Supplied	4	0.800	Very Good
Overall Variables	25	0.902	Excellent

Table 4: Pearson Correlation Analysis

		QUANTITY OF PINEAPPLE SUPPLIED IN JOHOR, MALAYSIA.
Farming Experience	Pearson Correlation	.726
	Sig. (2-tailed)	.000
	N	103
Farm Size	Pearson Correlation	.647
	Sig. (2-tailed)	.000
	N	103
Price of Pineapple	Pearson Correlation	.792
	Sig. (2-tailed)	.000
	N	103
Cost of Inputs	Pearson Correlation	.683
	Sig. (2-tailed)	.000
	N	103

Discuss Finding

This study suggests that further research can be done on factors influencing the supply of pineapples in Johor, Malaysia, as this study focused on pineapple growers to see if there is anycorrelation in the results. Therefore, some pineapplegrowers may also be able to answer this questionnaire.

Furthermore, the current study only focuses on factors influencing the supply of pineapples in Johor, Malaysia. However, this study may have overlooked some important factors that are alsoplaying a role in disrupting the supply of pineapplesin the Malaysian state of Johor. Therefore, researchers may recommend other variables, such as credit acquisition, to provide new insightsfor future research.

The study was also limited to a sample of 103, which can be classified as a smallmarket. Therefore, future researchers should increase the sample size to improve the accuracy and reliability of the study.

Finally, instead of having respondents answer a scale questionnaire online, you can interview them or ask them an open-ended question. Using the interview method, researchers can obtain high response rates, resolve ambiguities, and follow up on partial answers immediately. In fact, this practice can help eliminate misconceptions and produce better research results.

Conclusion

In a nutshell these variables have a significant and positive impact on pineapple supply in Johor, Malaysia. The findings of this investigation indicated that the price of pineapple influenced its supply. In simple terms, the study's goal of identifying the farming experience, farm size, cost of inputs, and price of pineapple that impact pineapple supply has been met.

This study advises that more research on variables impacting pineapple supply in Johor, Malaysia, be conducted, since this study focused on pineapple farmers to determine whether there is a correlation in the results. As a result, certain pineapple suppliers may be able to respond to this inquiry.

Furthermore, the current study focuses entirely on the factors influencing pineapple supply in Johor, Malaysia. This study, however, may have overlooked numerous key factors impacting pineapple supply in the Malaysian state of Johor. As a result, researchers may suggest that other variables, such as credit acquisition, be included in future study to give fresh insights.

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