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# FACTOR INFLUENCING THE CHOICE OF PINEAPPLE MARKETING CHANNEL IN SAMARAHAN, SARAWAK

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## **ABSTRACT**

Pineapple farming in Sarawak is mostly concentrated in Samarahan division due to the suitability of the land and the large number of people involved in this industry. The production of pineapple in Sarawak is for the domestic market only. Marketing channel decision is the most critical decision faced by farmers as it affects all other marketing decisions. Thus, the aim of this study is to examine the factors that highly influenced the farmer's preference towards the marketing channels. The results of this study showed that smallholder farmers in Samarahan sold their pineapples to 7 channels. A multi-stage sampling approach was used to select a sample of 117 smallholder pineapple farmers in Samarahan, Sarawak. Primary data was collected using a structured questionnaire. The data was analyzed using both descriptive and inferential statistical analysis by using SPSS version 21.

**Keywords:** Pineapple; Farmers; Marketing; Marketing channels.

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## 1. INTRODUCTION

#### 1.1. First Subtitle

Pineapple is a tropical plant with a distinct and unique taste, apart from its seemingly miraculous health benefits. This unique fruit is being cultivated extensively in many parts of the world including Malaysia. Malaysia Pineapples Industry Board's Chief Director, General Haji Sahdan Bin Salim stated that with the large area of peat soil, Sarawak has the potential to overtake Johor as the largest national producer. He believed that one day in the future, Sarawak will stimulate the nation's pineapple industry as more areas are being planted with pineapples and this will increase the overall production output from the country [1].

Nevertheless, the production of pineapple is still limited for the domestic market and none is being exported to other countries or even outside of Sarawak region [2]. There is limited industry on pineapple processing and most pineapples were sold fresh to the local people [3]. This situation leads the pineapple farmers to market their produce via limited marketing channels and some of them do not know that they have alternative marketing channels. It is very crucial for farmers to be well versed and know the appropriate channel to market their yield, as this will prevent them from suffering high losses and obtaining higher income. The government too should acknowledge the issues and be more proactive in handling this, as insufficient information about the availability of marketing channels will affect the selection of the channels and will eventually cause great losses to the farmers due to the poor supply chain management [4].

## 1.2 Second Subtitle

The decision process of choosing the most suitable marketing channel is very important for the farmers as various factors must be considered and evaluated thoughtfully from all angles. Various studies had been done which revealed the findings for both internal and external factors affecting the decision on marketing channel choice. A number of studies in relation to this study are reviewed. A study by Ogunleye and Oladeji [5] on Nigeria's cocoa industry had found out that time of payment, mode of payment, product price, farm distance, cost of transportation and product grading significantly influence the farmers in choosing the marketing channel. Descriptive statistics was used in this study to determine the most frequent channels and factors that influence the choice of market channel by cocoa farmers. Most of

the small scale farmers involved in this study has chosen itinerant buyers, cocoa merchant, other farmers and cooperative society store. They inferred that the deferral between when yield was sold and when payment was made was a vital transaction cost that impacted the decision of an outlet for cocoa farmers. Delay in payment debilitated ranchers from the decision of an outlet. Distance of the farm and road condition will increase the transportation cost. Poor road condition tends to increase the cost of transportation thus the farmers will favor a low transportation cost if they cannot avoid from it. Buyers whom are more particular in grading process will potentially turn down the produce or might cut down price, thus the farmers will try to avoid from facing this situation by selecting the buyers that is not picky in grading. In Indian vegetables industry, Panda and Sreekumar [6] identified ownership of the transportation as an important factor that influenced the producer in terms of marketing channel choice in agribusiness. The farmers that own their transportation can take their crop to the markets at their own terms. Besides, rural farmers that were located far away from the market can also move freely without depending on their friends or collectors to sell their produce.

According to a study by Nyaupane et al. [7], farmers had chosen a market outlet considering it has a convenience and economic profitability. Farmers prefer to choose the channel that offers the highest returns and the most convenience. The result from this study had showed that most farmers had selected wholesale markets compared to selling directly to consumers, retailers, and producers. Farmers have a choice of either to sell through direct or indirect marketing channels. Based from the findings, demographic farm characteristics and premarket characteristics had significant influences on the market choice. Besides that, the choice of channel also depends on the farmer's demographics such as age, gender, marital status, and education level as well as on the farm characteristic itself.

Another study on market channel choice has been carried out in Thailand, by Mukiama et al. [8]. The main objective of this study was to determine the factors that influenced choices of marketing channels. This study observed that there are three main marketing channels involved in vegetable marketing, which are collector, direct retailing, and farmers' cooperative. This study found that gender, income, experience, group membership, vegetable land size, soil conservation practice, and types of pesticide significantly affect the farmer's

choice of marketing channels. Farmers were found to be inclined to choose direct retailing channels when they have low income earnings. Farmers with vegetable land size less than 5 acres were found to be more likely to sell to the collectors' channel. While female farmers, belonging to a farmer's group, less experienced farmers, and practice sale production preferred to sell to the farmers' cooperative.

Therefore, this study is carried out to investigate the existing marketing channels for the pineapple farmers in Sarawak and to determine the factors that influence farmers' preferences towards the marketing channels. This study is necessary as there is not much research done on the marketing channel of the pineapple industry in Sarawak at the moment.

## 2. RESULTS AND DISCUSSION

## 2.1 Farmer's socio-demographic profiles

The summary of the farmers' socio-demographic profiles is shown in Table 1. The result showed that majority of the pineapple farmers were in the age of 51 to 60 years old, i.e. 36.8%. The production of pineapple in Samarahan was dominated by male farmers (67%), who also carried out the marketing function. The result also indicated that majority of the farmers were Malay (61.5%), married (78.6%), had 4 to 6 family members (67.5%) and had no formal education (39.3%). 71.8% of the farmers were full-time growers and 57.3% of them earned at most RM1,000 per month.

Table 1. Socio-demographic Profiles of Farmers

Item	Frequency	Percentage (%)
	(N)	
Age		
Less than 30	9	7.7
31-40	14	12.0
41-50	28	23.9
51-60	43	36.8
61 and above	23	19.7

Gender				
Male	78	67		
Female	39	33		
Race				
Malay	72	61.5		
Chinese	7	6.0		
Iban	29	24.8		
Bidayuh	9	7.7		
Marital Status				
Single	19	16.2		
Married	92	78.6		
Household Size				
Less than 3				
4-6	26	22.2		
More than 7	79	67.5		
	12	10.3		
Education				
No education	46	39.3		
Primary school	39	33.3		
secondary school	22	18.8		
Higher education				
	10	8.5		
Occupation				
Fulltime grower	84	71.8		
Businessmen	13	11.1		
Private	8	6.8		
Public	12	10.3		
Income				
Less than 500	18	15.4		

501 - 1000	49	41.9
1001 - 1500	28	23.9
More than 1500	12	10.3

# 2.2 Preferred Marketing Channels

The various marketing channels preferred by the respondents in the study area are shown in Fig. 1. There are seven marketing channels that were identified to market the pineapple product among the respondents which are middleman, FAMA, roadside stand, grocery store, neighbour, farmers' market and restaurant. From the analysis, it showed that most of the respondents sell their pineapple fruits through middleman. It constituted about 36% of the total respondents. Then, followed by FAMA, as it is recorded as the second preferred market channel used by farmers to sell their product with about 20% of the total respondents and about 18% of the total respondents sold their own fruits directly to end users at provided stalls at the roadsides.

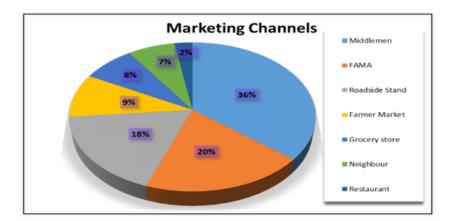


Fig.1. Distribution of Respondents According to Marketing Channels Used

Another 9% and 8% of the respondents sold their product through farmers'market and grocery store, respectively. While 7% sold to their neighbours and only 2% of the total respondents sold their fruits directly to restaurants or hotels.

# 2.3 Factors that influence farmers in selecting marketing channels for pineapple

Factor 1 that was named as 'Quality and Quantity Factor', consists of three variables that measured both quality and quantity preferences among respondents with eigenvalue of 2.831

and total variance explained of 23.592%. Factor 2 that was named as 'Price Factor', represented by three variables that measured the selling price preference among respondents with eigenvalue of 2.301 and total variance explained of 19.176%. Factor 3 that was named as 'Service Rendered by Buyers' Factor', consists of two variables that measured service preference among respondents with eigenvalue of 1.967 and total variance explained of 16.388%. Factor 4 that was named as 'Farm to Market Centre Distance Factor', consists of two variables that measured the distance of the farm from the market centre among respondents with eigenvalue of 1.894 and total variance explained of 15.786%.

The finding below showed that Factor 1 was the most important factor that influenced the pineapple farmers in choosing the preferred marketing channel for their products. This finding was similar to the other crop study conducted by Kamarulzaman et al., [9] in terms of the perceptions on quantity of production influencing farmers in selection of marketing channel of pepper in Sarawak. This indicated that quantity of product influences farmers in selecting the marketing channel where farmers tend to choose wholesaler buyers when they have a large quantity of product and some of them preferred to choose direct selling when they have lesser quantity of product.

Table 2. Factors Affecting the Choice of Marketing Channel

Items	Factor Loading		
Factor 1: Quality			
and Quantity			
I will not market the	.882		
pineapple to			
wholesalers that are			
picky about the			
quality of my crop			
yield			
Buyers doesn't	.866		
impose quantity limit			

Buyer focusing on the	.861			
ratio of quantity				
rather than quality of				
fruits				
Factor 2: Price				
Buyer offers the high		.881		
price				
Current market price		.840		
influences the				
marketing channel of				
crop yield to buyer				
If the market price				
rise, I will market the				
crop yield straight to		.822		
sales center because				
of higher profit				
Factor 3: Service				
I am comfortable with				
the treatment given by				
buyers during trade			.927	
process				
The buyer provides				
advice, support and				
training to me about			.903	
the care of pineapple				
Factor 4: Distance				
I do not bear the cost				
of transportation to				
market the crop yield				.901

to the buyer because				
they will come from				
afar to buy pineapple				
The location of my				.891
farm is near to the				
sales center				
Eigenvalues	2.831	2.20	1.967	1.004
Ligenvalues	2.031	2.30	1.90/	1.894
Eigenvalues	2.031	2.30	1.90/	1.894
% of variance	23.59		16.38	1.894
<u> </u>		1		
<u> </u>	23.59	1 19.1	16.38	15.78

Normally, farmers want to sell their production in large quantity in order to gain more profit. Since FAMA had imposed quantity and quality restriction regulations, the farmers preferred to choose other marketing channels as their intermediaries due to no limitation particularly in terms of selling quantity.

Meanwhile, in cases where the produce is being severely graded, farmers would usually have feared that their produce will be rejected or the price being brought down, hence, they would prefer to avoid facing the stringent procedure in grading the produce. This leads farmers to choose markets that are free from any stringent condition about quality of fruits to avoid product being rejected. Ogunleye and Oladeji [5] also mentioned these issues in their study in regards to the factors influencing the choice of marketing channels among cocoa farmers in Osun State, where the stringent condition on quality of product especially strict grading system of fruits had led farmers to avoid market that was fussy about quality of product.

Price of product was identified to be the second important factor. This finding is similar to the study done by Geoffrey et al. [10] who indicated that price offered by buyers influences the farmers in the decision to market pineapple in Kenya. This study showed that the channel which offers the best price has stronger influence on the decision to market pineapple. The

farmer is likely to choose the one which gives higher benefits. Farmers preferred selling pineapples to private middlemen because private middlemen offer higher prices to them compared to FAMA. This showed that pricing is an important marketing decision because it greatly affects the revenue generated by the farmers. Channel decisions made based on price is very important as price influences revenue and affects the quantity sold and it also affect the demand relationship for the product.

The third important factor identified was the services rendered by buyers. Pineapple farmers want to reduce their cost of production as much as possible such as cost of transportation. If the buyers provide the transportation service to pick up the produce, farmers will choose them as their marketing channels in order to reduce the transportation cost. Most of the farm owned by pineapple farmers in Samarahan is far from the market place, so the larger the distance, the higher the cost of transportation as well as cost of marketing. Therefore, if the buyers could provide the transportation service to pick up the produce, the farmers will choose them as intermediaries. Besides, all of the farmers who are involved in contract farming were selling their products to FAMA. FAMA provides service in terms of marketing where FAMA helps farmers who are under contract farming to secure market and thus increase farmer's revenue. FAMA acts as buyer to guarantee market crops where farmers produce the crop by variety, quality, grade, packaging, and set production schedule. Good service offer by buyers will increase farmer's commitment to increase pineapple production [9].

Distance is another factor that influences the choice of marketing channel by pineapple farmers in Samarahan, Sarawak. The production area which is far from the market will influence the choice of marketing channels among the farmers. Xaba and Masuku [11] studied had reported that distance between farmers' farm greatly influenced the choice of marketing channel. If the market was very far away from the farm, it would affect the frequency and willingness of the farmers to travel to the market centre as they would need to account the transportation costs and also time. As stated by Ogunleye and Oladeji [5], the greater the distance to the market, the higher the transportation costs and marketing costs would be, and these factors will eventually reduce the extent of market participation.

## 3. EXPERIMENTAL

A survey method through face to face interview by using structured questionnaire was used to collect data from a total of 117 pineapple farmers in Samarahan, Sarawak, Malaysia. The survey was conducted from July to December 2015. Samarahan is the largest pineapple cultivation area compared to other districts in Sarawak with a total area of approximately 906.4 hectares, out of the total 6,183.7 hectares for the whole of Sarawak [12]. Twenty villages in Samarahan district were selected for this study i.e. Kampung Meranek, Kampung Sungai Mata, Kampung Niup, Kampung Naie, Kampung Empila, Kampung Mang, Kampung Sungai Tambai, Kampung Tambay, Kampung Lubok Punggor, Kampung Pinang, Kampung Endap, Kampung Jemukan, Kampung Terasi, Kampung Lubok Mata, Kampung Sui, Kampung Simunjan, Kampung Tembirat, Kampung Semera, Kampung Baru, and Kampung Melayu. The respondents were selected based on simple random sampling method. The questionnaire consisted of three sections which had been validated. Questions in Section A were related to farmer's socio-demographic profiles, questions in Section B were related to the farmers' preferred marketing channels whereas questions in Section C focused on the influencing factors in selecting the marketing channels. Data were analyzed using both Descriptive Statistical Analysis and Factor Analysis. Descriptive statistics such as frequencies and percentages were used to analyze Section A and Section B. Meanwhile, factor analysis was performed in order to find the most important factors that influenced the pineapple farmers in selecting the marketing channels.

## 4. CONCLUSION

The study focuses on factors that influence the farmers in selecting the marketing channels for pineapple. The pineapple farmers agreed that there were four factors affecting their choice of marketing channels namely price of product, quantity and quality of product, distance between farm and selling centres and service rendered by buyers. The quantity and quality of product influences farmers in selecting marketing channel where farmers tend to choose wholesaler buyers when they have a large quantity of product and some of them preferred to choose direct selling when they have small quantity of product. The second factor is price of product, the farmer's believed that the channel which offers the best price has stronger

influence on the decision to market pineapple. The farmer is likely to choose the one which gives higher benefits. Another factor is service rendered by buyer, farmers preferred to sell their pineapple to buyers that offer good services such as FAMA. FAMA provides service in terms of marketing where FAMA helps farmers who are under contract farming to secure market and thus increase farmer's revenue. The fourth factor is distance between farm and selling centers, the further the production area from the market, the less likely it would be for the farmers to participate in the pineapple market channel choice since they would not be realizing returns due to the perishable nature of pineapple and increased transportation charges.

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- 2. Faculty of Plantation and Agrotechnology, Universiti Teknologi Mara

## 6. REFERENCES

[1] Aubrey, S. (2013). Set to be top pineapple producer. Sarawak: The Borneo Post.

[2] Assis, K., Zainal, N.A., & Mohammad Amizi, A. (2014). Relationship between Socioeconomic Factors, Income and Productivity of Farmers: A Case Study on Pineapple Farmers. International Journal of Research in Humanities, Arts and Literature. 2(12). 2347-4564.

[3] Agricultural Department Sarawak. (2015). Agricultural Department, Headquarters, Kuching Sarawak. 19 April 2015.

[4]Man, N., Nawi, N.M., & Ismail, M.M. (2009). An Overview of the Supply Chain Management of Malaysian Vegetable and Fruit Industries Focusing on the Channel of Distribution. Journal of Agribusiness Marketing, Vol.2, 1-18.

[5]Ogunleye, K. Y., & Oladeji, J. O. (2007). Choice of Cocoa Market Channels among Cocoa Farmers in ILA Local Government Area of Osun State, Nigeria. Middle-East Journal of Scientific Research, 2(1), 14-20.

[6]Panda, R. K. & Sreekumar (2012): Marketing Channel Choice and Marketing Efficiency Assessment in Agribusiness, Journal of International Food & Agribusiness Marketing, 24:3, 213-230.

- [7] Nyaupane, P.N and J.M, Gillespie. 2010. Factors Influencing Producers' Marketing Decisions in the Louisiana Crawfish Industry, Louisiana State, University Agricultural centre, Bolton Rounge, LA.
- [8] Mukiama, B.K., Suphanchaimatand, N. & Sriwaranun, Y. (2014). Factors Influencing Vegetable Farmers Choice of Marketing Channel in Khon Kaen, Thailand. Khon Kaen Agricultural Journal, 42(4): 595-604.
- [9] Kamarulzaman, N.H., Husin, H., Mohayidin, M.G. & Enchi, J. (2013) Buyer Preferences among Pepper Farmers in Sarawak. Journal of Agribusiness Marketing, (6), 1-13.
- [10] Geoffrey, S.K., Hillary, B.K., Lawrence, K.K., & Mary, M.C. (2013). Determinants of Market Participation among Small-scale Pineapple Farmers in Kericho Country, Kenya. Journal of Economics and Sustainable Development, 4(19), 2222-2855
- [11] Xaba, B.G. & Masuku, M. B. (2013). Factors Affecting the Choice of Marketing Channel by Vegetable Farmers in Swaziland. Sustainable Agriculture Research, 2(1): 1927-0518
- [12] MPIB (2015). Origin of Pineapple. Retrieved from Malaysian Pineapple Industry Board: http://www.mpib.gov.my/web/guest/penyediaan-kawasan

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