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Development Marketing Strategy of Salak Pondoh (*Sallaca Zalazza (Gaert.) Voss.*) Based on Marketing Mix

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Abstract: Salak (*Salacca zalacca*) is a species of palm tree (family Arecaceae) native to Java and Sumatra in Indonesia. Salak pondoh (*Sallaca Zalazza (Gaert.) Voss.*) is a local fruit product of Indonesia with the largest production in Central Java province at 39.49%, North Sumatra at 31.64% and Yogyakarta is 6.77%. Production of salak pondoh in Yogyakarta Province are in Sleman Regency with the total production in 2015 of 741,326 quintal and in 2016 amount to 765,340 quintal. The price of salak pondoh fruit is fluctuating, while in the harvest season the price drops. The importance of applying the right marketing strategy for this research so that the goals based on marketing mix attribute consist of product, price, place, and promotion. Marketing strategy is a way of marketing from a business unit to achieve marketing goals. In determining the marketing strategy can be done with a combination of segmentation, targeting, and positioning with the marketing mix to achieve the company's goals. The purpose of this study was to analyze the role of the supply chain of salak pondoh fruit, to identify the segmentation, targeting, and positioning to develop a marketing strategy for salak pondoh fruit based on the marketing mix for the salak pondoh. The result of this research are marketing strategy salak pondoh with improvement quality of salak pondoh to get the better price, improvement promotion to get better price, and improvement place to sell product to increase sale.

Keywords: marketing strategy, Analytic Hierarchy Process, consumers

1. Introduction

There are three subdistrict that become central production salak in Sleman Regency. The quantity of production salak in three subdistrict and production percentage if compared with total production in Sleman Regency are Turi Subdistrict with production 512,863 quintal or 69.18% in 2015 and 521,882 quintal or 68.19% in 2016; Tempel Subdistrict with production 149,825 quintal or 20.21% in 2015 and 159,192 quintal or 20.80% in 2016; and Pakem Subdistrict with production 61,453 quintal or 8.29% in 2015 and 64,295 quintal or 8.4% in 2016.

The price fluctuation of salak always happen every year. In harvest season the price of salak fruit will drop. Harvest season of salak fruit between December until January. On January until December 2015 the average price of salak Rp 8,283.00/kg while On January until December 2016 the price of salak Rp 4,720.00/kg. The price of salak in 2016 decreased 43% than 2015. The price in 2016 decreased because the quantity of salak pondoh in 2016 increased than 2015. The optimum price of salak pondoh Rp6,000.00/kg with production quantity 755,000 quintal (BPS Kabupaten Sleman, 2017).

Promotion process of salak in Sleman Regency with direct selling of word of mouth. Many supply chain agents of salak in Sleman Regency are not used internet for promotion their product. Promotion process must be improvement to increased the sell with attract customer to buy salak pondoh.

Place that used by supply chain agents to sell the product in Turi Subdistrict for now to reach their local target. Development place to sell salak pondoh with national target and global target must to do because salak have potention in product and price.

Supply of salak pondoh in local area as well as global area will be prove with appropriate supply chain management and marketing. The important supply chain management applied to improved business to reach their success with improvement product quality, revenue, and efisiensiy distribution of lead time, cost, inventory, and error forecasting [1]. The important of marketing to introduce salak pondoh to society and attract customer to buy salak pondoh.

Appropriate marketing strategy have improve to in face with competitor. Marketing strategy consider marketing mix of product important to reach goal and target company. The important to applied appropriate marketing strategy is constitute to do this research.

2. Materials and Methods

2.1. Market Identification in Supply Chain

Object of this research used supply chain agents salak pondoh included farmers, collectors, whole salers, and retailers in Turi Subdistrict that become production central of salak pondoh in Sleman Rregency and customer salak pondoh in Yogyakarta City.

2.2. Data

Data that used in this research included primery data and secondary data. Primary data got from indepth interview included salak pondoh distribution, distributor task, and criteria every marketing mix; preliminary questionnaire to know assessment by customer, and core questionnaire to know assessment supply chain agents. Secondary data got from Badan Pusat Statistika included quantity of salak pondoh and price of salak pondoh.

2.3. Sampling

Sampling that used are purposive sampling and snowball sampling. Purposive sampling to determine sample that will used in this research with give appropriate requirement so the sample that used in this research will representative the population. Based on purposive sampling the sample quantity that used 30 sample (Teddlie, 2007). Snowball sampling used to know the flow of product distribution with the related respondents that used in this research [2].

2.4. Segmentation, Targeting, and Positioning

Segmentation to divide market become group of customer into same want, characteristic, or customer attitude [3]. Targeting to determine market segment that will be used to reach company target market [4]. Positioning is used to make company image so company will have special place in the mind of target market [5].

The arrangement of segmentation, targeting, and positioning with cluster analysis and correspondence analysis. Cluster analysis to group respondents in one segment that have same characteristic [6]. Cluster analysis used cluster non – hierarchy with K – Means method. K – Means method clustering used because this method easy and simple to analyse sample, can use to analyse sample in big quantity, and process to found same data in cluster more quick [7]. Correspondence analysis use to connect two variable to determine market target and positioning [8]. Two variable that used are sub criteria of marketing mix and cluster.

2.5. Analytic Hierarchy Process

Analytic Hierarchy Process developed by Thomas L. Saaty. This method is framework to make decision of complex problem become simple problem and to make decision process more quick with break the problem into some part, arrange the part or variable in hierarchy, give numeric value in subjective opinion every variable and consider variable that have the biggest priority and have impact for the result [9].

Analytic Hierarchy process used to solve problem in Multi Criteria Decision Making with pair comparison to know the best option that become alternative in criteria [10]. The simple shape to make structure hierarchy in problem decision making of analytic hierrachy process formed into three level are goal, criteria, and alternative [11]. The main strength of Analytic Hierarchy Process to solve problem from subjective opinion and to got quantitative priority in every important alternative [12].

In calculation of Analytic Hirarchy Porcess used calculating of priority vector to determine the biggest weight from criteria and subcriteria that will became alternative. Afterthat determine eigenvalue from the data to testing consistency. The formula matriks pair comparison, vector priority (w_n) and eigenvalue (n) can show below [11].

$$\begin{pmatrix} \frac{w_1}{w_1} & \frac{w_1}{w_2} & \dots & \frac{w_1}{w_n} \\ \frac{w_2}{w_1} & \frac{w_2}{w_2} & \dots & \frac{w_2}{w_n} \\ \frac{w_3}{w_1} & \frac{w_3}{w_2} & \dots & \frac{w_3}{w_n} \\ \vdots & \vdots & \ddots & \vdots \\ \frac{w_n}{w_1} & \frac{w_n}{w_2} & \dots & \frac{w_n}{w_n} \end{pmatrix} \begin{pmatrix} w_1 \\ w_2 \\ \vdots \\ w_n \end{pmatrix} = n \begin{pmatrix} w_1 \\ w_2 \\ \vdots \\ w_n \end{pmatrix} \tag{1}$$

The formula of Consistency Index (CI) and Consistency Ratio (CR) can show below [11].

$$CI = (\lambda_{max} - n) / (n - 1) \tag{2}$$

Where eigenvalue (λ_{max}) and number of row and colom (n)

$$CR = \frac{CI}{RI} \tag{3}$$

3. Results

3.1. Supply Chain Flow

Supply chain salak pondoh for domestic market in Turi Subdistrict, Sleman Regency is process distribution salak pondoh from producer to customer. Distribution process salak pondoh from producer in Turi Subdistrict that serve domestic market in some area of Java island, Sumatera island, Kalimantan island, Sulawesi island, and Bali island. Distribution process of salak pondoh from four tier of supply chain agents are farmers, collectors, whole salers, and retalers. Picture 1 show flow of supply chain salak pondoh in Turi Subdistrict.

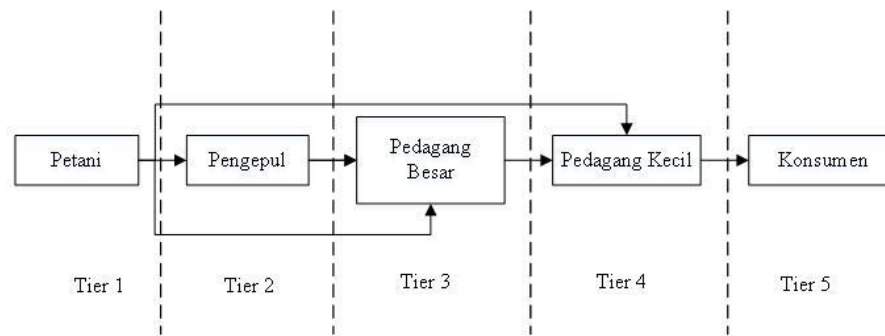


Figure 1. Flow Supply Chain Salak Pondoh in Turi Subdistrict

3.2. Task of Supply Chain Agents

Farmers have main task to produce salak pondoh. When farmers produced salak pondoh there are some tasks that have to be done by farmers to get the best quality of salak pondoh starting from choosing seeds that will be planted until controlling salak before harvest.

There are some collector tasks. First, collectors in villages will collect salak pondoh from farmers. Second, separate salak pondoh based on the condition of salak pondoh that has good quality or all physical conditions of salak pondoh are not rotten. Third, clean salak pondoh from impurities that attach to salak pondoh.

Wholesalers have some tasks as follows. First, collect salak pondoh from farmers and collectors in villages and traditional markets. Wholesalers in traditional markets are Balerante, Turi, and Prayan. Second, separate salak pondoh based on grade. Wholesalers separate salak pondoh from 3 grades until 7 grades but most wholesalers separate into 3 grades (grade A, B, and C). Third, sort or separate salak pondoh based on the quality of salak pondoh that has good conditions or salak pondoh are not rotten. Fourth, send salak pondoh to wholesalers in D.I. Yogyakarta Province or out from D. I. Yogyakarta Province.

Retailers in Turi Subdistricts have three tasks. First, separate salak pondoh based on grade. Separate grades of salak pondoh start from 2 grades until 3 grades. Most retailers separate salak pondoh into 2 grades based on size (big and small). Second, sort salak pondoh based on good quality or salak pondoh are not rotten. Third, sell salak pondoh to end customers.

3.3. Segmentation, Targeting, and Positioning Analysis

Content validity is used to test compatibility content from every variable to measure the tool to analyze segmentation, targeting, and positioning and marketing strategy. The formula of Content Validity Ratio can be shown below.

$$CVR = \frac{n_e - \left(\frac{N}{2}\right)}{\left(\frac{N}{2}\right)} \quad (4)$$

Explanation :

n_e : Total respondents that answer relevant and important

N : Total respondents that use for research

The minimum value of Content Validity Ratio (CVR) 0,582 when total respondents 8 persons. The value of CVR in table Critical Value for Lawshe's determine with alpha (probability error 0,05 in one – tailed test [13].

Criteria marketing mix that valid then arrange become preliminary questionnaire after that the questionnaire will spread to customer. The result of data preliminary questionnaire will process with cluster analysis and correspondence analysis use SPSS. The table below show final cluster centers that classified criteria in cluster.

Table 1. Final Cluster Centers

	<i>Cluster</i>		
	1	2	3
Product salak pondoh have same uniformity (P1)	3,19	1,92	3,80
Product salak pondoh appropriate with customer need (P2)	2,81	1,76	3,73
Product salak pondoh are not defect (P3)	2,19	1,66	3,53
Product salak pondoh in good condition (P4)	2,19	1,75	3,87
Price achievable (H1)	1,85	1,69	3,73
Price influence customer to decision to buy product (H2)	1,96	1,83	3,47
Price competitive (H3)	2,69	2,22	3,13
Price appropriate with quality H4)	2,04	1,80	3,20
Promotion use internet (R1)	4,54	2,64	2,73
Promotion process are appropriate (R2)	3,96	2,36	2,80
Promotion through regional government or other (R3)	3,65	2,78	3,20
Branding salak pondoh (R4)	3,69	2,17	2,80
Good distribution product (T1)	2,85	2,19	3,20
Place for got salak pondoh are easy (T2)	2,35	1,93	3,33
Place easy to reach (T3)	2,62	1,93	3,47
Place for selling the product are strategic (T4)	2,96	2,05	3,60

The highest value of marketing mix criteria in table final cluster centers need to improvement. Based on the result of final cluster centers customer divide into three cluster based on marketing mix criteria to attract customers buy salak pondoh. Cluster 1 (Cluster middle) because customers need improvement in promotion. Cluster 2 (Cluster less aware) because customers are not need improvement in marketing mix. Cluster 3 (Cluster prominence) because customer need to improvement in all criteria of marketing mix.

Based on correspondence analysis the target market that choose is cluster 1 because have the biggest mass value or eigenvalue and cluster 3 have mass value or eigenvalue in second position. The two cluster was choose for targeting because total of respondents in cluster 1 are 26 respondents while total respondents that will analyse used core questionnaire based Analytic Hierarchy Process are 30 respondents so the cluster that choose cluster 1 and cluster 3 with total 41 respondents. Determine minimum total respondents are 30 respondents based on purposive sampling. Criteria P1, H3, R2, and T1 choose to attract customer interest in cluster 1 and criteria P3, H4, and T2 choose to attract customer interest in cluster 3 when buy salak pondoh. Four criteria marketing mix choose because have close distance with cluster 1 and cluster 3 so it indicate that two cluster have same correspondence between cluster and criteria. Targeting cluster 1 and cluster 3 to fulfill customer want with improvement in uniformity of salak pondoh, salak pondoh are not defect, the price competitive, price appropriate with quality, have good distribution process, salak pondoh easy to get, and appropriate promotion. Figure 2 show perceptual map in this research.

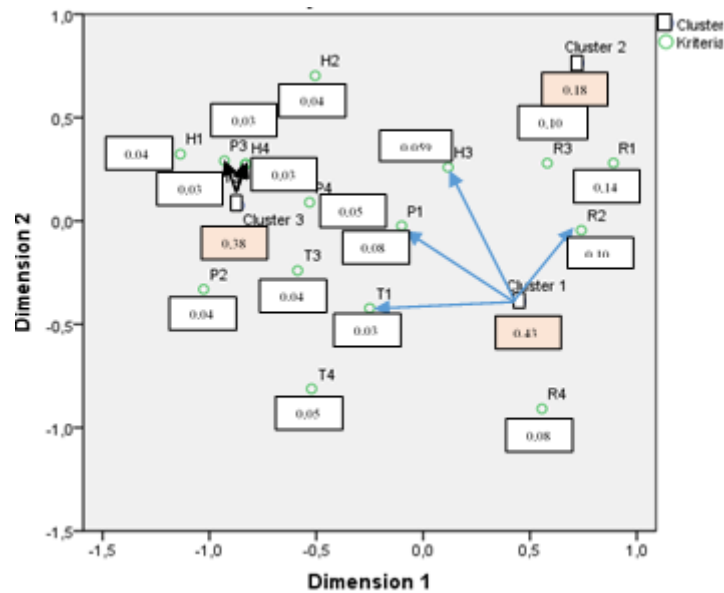


Figure 2. Perceptual Map

Positioning salak pondoh are place product in customer eye so can increased revenue for company. Positioning salak pondoh based on quality, cheap price, availability, and information easy to get. Four positioning salak pondoh place for customer in cluster 1 and cluster 3.

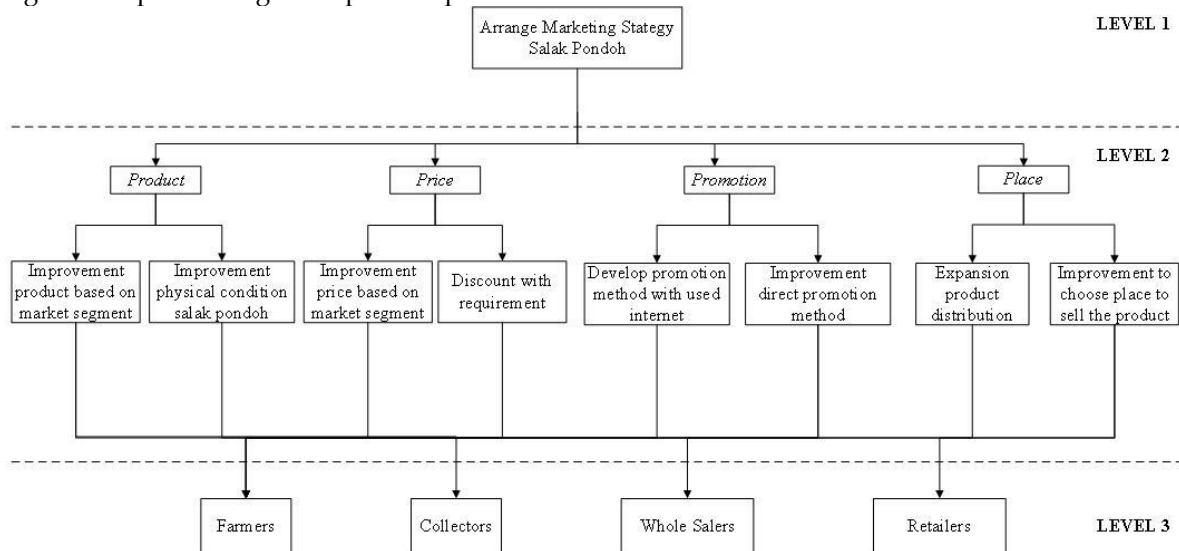


Figure 3. Hierarchy Marketing Strategy of Salak Pondoh

3.4. Marketing strategy analysis of supply chain agents salak pondoh

Marketing strategy analysis of supply chain agents salak pondoh used core questionnaire based on analytic hierarchy process. Core questionnaire spread to supply chain agents salak pondoh. Figure 3 show hierarchy in this research.

The recommendation of marketing strategy got after analysis data to determine marketing strategy with used Analytic Hierarchy Process. Marketing strategy in every tier supply chain agents got based on value of global weight in every criteria in marketing mix.

Marketing strategy of salak pondoh for farmers with improvement product because based on calculation of local weight and global weight have the biggest weight. The value can show in table 2. Marketing strategy recommendation product salak pondoh with improvement physical condition of salak pondoh. First, Control plant of salak pondoh from fertilization to make the supply nutrients in soil, supply nutrients balance with growth or blooming of plant, improvement the quality product, and

improvement plant productivity; cut salak pondoh leaves to improve the productivity in maximal condition and stimulate growth shealth female flower; and control Plant Vermin Organism that make decrease the productivity and fruit quality. Second, Decrease the quantity of product in every stalk to got the product that have good quality and optimum quantity. Third, Make food from salak pondoh to decrease the damage physical fresh fruit of salak pondoh.

Table 2. Local Weight and Global Weight Marketing Strategy Farmers

Criteria (Local weight)	Sub Criteria (Local weight)		Global weight	
	Farmer s		Farmers	Farmers
Product	0,48	Improvement product based on market segment	0,21	0,10
		Improvement physical condition salak pondoh	0,79	0,38
Price	0,22	Improvement price based on market segment	0,6	0,13
		Discount with requirement	0,4	0,09
Promotion	0,05	Develop promotion method with used internet	0,22	0,01
		Improvement direct promotion method	0,78	0,04
Place	0,25	Expansion product distribution	0,6	0,15
		Improvement to choose place to sell the product	0,4	0,10

Marketing strategy salak pondoh in collector do with improvement product because based on calculation of local weight and global weight have the biggest weight. The value can show in table 3. Marketing strategy recomendation product for collector with separate salak pondoh that have small size to increase sales, separate salak pondoh from salak pondoh that have defect condition to increase the sales, and separate salak pondoh from the highest ripe level to offer salak pondoh that have best quality to customer.

Table 3. Local Weight and Global Weight Marketing Strategy Collectors

Criteria (Local weight)	Sub Criteria (Local weight)		Global weight	
	Collectors		Collectors	Collectors
Product	0,50	Improvement product based on market segment	0,11	0,05
		Improvement physical condition salak pondoh	0,89	0,44
Price	0,23	Improvement price based on market segment	0,84	0,19
		Discount with requirement	0,16	0,04
Promotion	0,05	Develop promotion method with used internet	0,29	0,01
		Improvement direct promotion method	0,71	0,04
Place	0,22	Expansion product distribution	0,86	0,19
		Improvement to choose place to sell the product	0,14	0,03

Marketing strategy salak pondoh for whole salers do with improvement every criteria in marketing mix because have the close related with end customer and cluster that choose need to improvement in every criteria. Whole salers have the biggest value of local weight and global weight. The value can show in table 4. Marketing strategy product salak pondoh are improvement the physical condition salak pondoh based on supply of salak pondoh appropriate with demand, time for send salak immediately, improvement packaging process, and separate salak pondoh based on ripe level. Recommendation price of salak pondoh in whole salers are improvement price appropriate with market segmen that determine based on grade. Recommendation place on tier whole salers are improvement place for sell with choose place that strategic. Promotion recommendation with develop direct promotion method and develop promotion method with use internet. Develop direct promotion method with offer salak pondoh to other salers; supermarket; and exporter, spread leaflet to supplier salak pondoh in other region through expedition driver that distribute fruit to out D.I.Yogyakarta Province , attace label in packaging "Salak Pondoh Sleman", and join expo that held by regional government or other. Develop internet to promotion used website and social media.

Table 4. Local Weight and Global Weight Marketing Strategy Whole Salers

	Criteria (Local weight)		Global weight	
	Whole Salers	Sub Criteria (Local weight)	Whole Salers	Whole Salers
Product	0,55	Improvement product based on market segment	0,50	0,28
		Improvement physical condition salak pondoh	0,50	0,28
Price	0,23	Improvement price based on market segment	0,73	0,17
		Discount with requirement	0,27	0,06
Promotion	0,06	Develop promotion method with used internet	0,58	0,03
Place	0,17	Improvement direct promotion method	0,42	0,03
		Expansion product distribution	0,30	0,05
		Improvement to choose place to sell the product	0,7	0,12

Marketing strategy salak pondoh for retailer do with improvement every criteria in marketing mix because have close relation with end customer and cluster that choose need to improvement in every criteria. Retailers have the biggest value of local weight and global weight. The value can show in table 5. Recommendation place for retailer with improvement to choose place for sell salak pondoh that strategic in slow lane and serve place to park. Price for retailers used with improvement price appropriate with market segment are separate salak pondoh based on the defect to increase sale salak pondoh and separate salak pondoh base on ripe level. Recommendation product salak pondoh for retailers with improve physical condition salak pondoh. It can do with separate salak pondoh from small size, separate salak pondoh from defect condition (peel the skin), and separate salak pondoh from roppen condition. Improvement promotion of salak pondoh with develop direct promotion method and develop promotion method with internet. Direct promotion method used with attach panflet of salak pondoh and the benefit. Promotion through internet with use website and sosial media (twitter, facebook, instagram, etc) to attract customer interest buy salak pondoh.

Table 5. Local Weight and Global Weight Marketing Strategy Retailers

Criteria (Local Weight)		Sub Criteria (Local Weight)	Global Weight	
	Retailers		Retailers	Retailers
Product	0,3	Improvement product based on market segment	0,28	0,08
		Improvement physical condition salak pondoh	0,72	0,22
Price	0,32	Improvement price based on market segment	0,76	0,24
		Discount with requirement	0,24	0,08
Promotion	0,06	Develop promotion method with used internet	0,43	0,03
		Improvement direct promotion method	0,57	0,03
Place	0,32	Expansion product distribution	0,22	0,07
		Improvement to choose place to sell the product	0,78	0,25

4. Discussion

The results showed that the marketing activities of salak pondoh still needed to improve packaging for the upper middle segment with the aim of increasing the value of the product. In addition, processed salak pondoh for product can be an alternative to increasing profit in business salak pondoh fruit.

5. Conclusions

The result of this research are marketing strategy salak pondoh with improvement quality of salak pondoh to get the better price, improvement promotion to get better price, and improvement place to sell product to increase sale.

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