

Analysis of Consumers Satisfaction and Jackfruit Chips Quality Improvement Strategy Using integration *Quality Function Deployment* (QFD) with *Analytical Hierarchy Process* (AHP) (a Case Study in CV. Aneka Rasa, Malang)

Andan Linggar Rucitra^{1*}, Imam Santoso², Retno Astuti³

¹ Department of Agroindustrial Technology, Faculty of Agricultural Technology, Brawijaya University

²Teaching Staff Department of Agroindustrial Technology, Faculty of Agricultural Technology, Brawijaya University

³Teaching Staff Department of Agroindustrial Technology, Faculty of Agricultural Technology, Brawijaya University

Abstract

The development of local food products very rapidly at this time is marked by the emergence of a variety of brands on the market. CV Aneka Rasa is a business unit that manufactures special food products of Malang with the average sales per month jackfruit chips in 2013 amounted to 97.5 kg judged more dominant than the consumers preferred other fruit crisps. Quality Function Deployment (QFD) is an effective tool that can help companies towards improving processes to meet consumer expectations. The use of QFD method needs to be integrated with other methods for obtaining the order of priority of an issue, the proper method in analyzing customer satisfaction that QFD is suitable to be integrated with AHP method. The purpose of this study was to analyze the attributes of desire and customer satisfaction with jackfruit chips Aneka Rasa and to formulate strategies to improve product quality jackfruit chips Aneka Rasa. The result of this study was that the sense of a constant volume of jackfruit chips on the tops with the value of 7.5. The highest priority of technical responses that allow recording to the CV. Aneka Rasa was the determination of the appropriate selling price with the value of 0.383.

Keywords: customer satisfaction, quality improvement, QFD, AHP

INTRODUCTION

Customer's loyalty is the key to success not only for short-term, but also for sustainable quality improvement, because customer's loyalty has strategic value for the industry and it is one of valuable product asset. CV. Aneka Rasa is a business unit which produces typical snack from Malang. Various products from CV. Aneka Rasa make CV Aneka Rasa to become tourism destination. The product from CV. Aneka Rasa which needs to compete with similar products on the market is fruit chip, and in this research jackfruit chip which is more preferred by the consumers than the other kinds of chip is selected.

There are plenty of methods that can be done to measure consumers' satisfaction rate, one of them is SERVQUAL, Importance Performance Analysis (IPA), and Quality Function Deployment (QFD). QFD is an effective tool which can help the company by creating a respond for the consumers need, explaining what they want, and a process to improve the consumers' expectancy

[1]. However, this method has a weakness; it operates based on inputs, then it processes them, and it produces a certain output, and it needs a specific skill in filling the matrices.

The use of QFD method needs to be integrated with another method to obtain priority sequence from a problem. There are some methods in Multi Choice Decision Analysis (MCDA) which can be used in weighting such as TOPSIS, ELECTRE, and AHP. QFD method is suitable to integrate with AHP method, because AHP method can display the appropriate weighting sequence in order to solve the difference of argument among expert respondents to gain the right technical alternative respond [2]. AHP method uses qualitative input; that is why AHP can process both quantitative and qualitative material [3].

Within a research which uses AHP computing, there is attribute which has the highest value is business unit which is better than its competitors, that is why the alternative of strategy improvement for consumers satisfaction has become a priority to develop by the business unit [4]. In another research about the analysis of fresh fruits consumers' satisfaction in Surya Indah Department Store in Bone regency, based on the processing output by using AHP method towards the strategy of the department store, a

Correspondent Writer Address:

Andan Linggar Rucitra

Email : andanrucitra@gmail.com

Address : Post Graduate Program, Department of Agroindustrial Technology, Faculty of Agricultural Technology, Brawijaya University.
Jl. Veteran Malang 65145

goal which became priority of Surya Indah department store was obtained which is the increase of selling volume [5].

The aim of this research was to determine expectancy attributes and satisfaction priority if they are compared to CV "X" and to obtain a strategy in increasing quality of jackfruit chip product from CV. Aneka Rasa if it is compared to CV "X".

RESEARCH METHOD

This research was a quantitative descriptive research, which aims to discover facts, condition and phenomenons which happen nowadays and to present them as they are. The research design was survey design, which aims to collect a small amount of population which is set previously. This research was use questionnaires for the survey design.

Data Collection Method

Data collection was done first by doing observation to the specific product which is jackfruit chip. Based on house of quality, then a questionnaire was done. After all of the data was collected, then the next steps are data analysis and discussion. In this step the measurement of consumers' satisfaction rate of jackfruit chip product from CV. Aneka Rasa was done by using integration QFD and AHP methods. QFD method was done as the basis of the research. This was done by comparing service performance to analyse CV. Aneka Rasa consumers' satisfaction with CV "X" business unit. After the service performance which is still low was derived, then a plan analysis of consumers satisfaction and product quality improvement strategy was made. It was based on QFD method from strategy plan matrices which also produces a clue to increase consumers satisfaction based on the sequence of weighting of every attribute for consumers' satisfaction and technical respond from the company towards the consumers by using AHP methods.

This research was divides the respondents into 2 groups which are consumer respondent and expert respondent. For consumer respondent, the size of the sample is counted based on slovin formulas, which are 47 respondents and expert respondents are those whose information and skills are going to be used as source of data in the research. In this research, the expert respondents are 3 people which are the owners of CV. Aneka Rasa and academicians.

RESULTS AND DISCUSSION

Marketing is one of important thing for CV. Aneka Rasa. Taking advantage from CV. Aneka Rasa's accessible location and brand image which is created as pioneer of various special snacks from Malang, CV. Aneka Rasa consumer target is the tourists who come to Malang. In order to get market target, the competition is very tight so that the business unit must focus to the regulars. Regulars' satisfaction depends on their perception towards the product's characteristic. They want product which fulfill their need and expectancy. The need and expectancy are stated within the product spesification and is called regular terms. The business unit must try to give its best to produce product which has high quality and meets the consumers' expectation. Based on the result of questionnaires spread, the respondents which are used as sample in this research are the consumers who buy jackfruit chip from CV. Aneka Rasa (AR) and they have bought the product from CV "X" Malang. The amount of the respondents in this research is 47 people. The overall characteristic about the respondents can be seen in Table 1.

Table 1. Characteristics consumer respondent of jackfruit chip

No	Note	Characteristics	Quantity	(%)
1	Sex	a. Male	16	34
		b. Female	31	66
2	Age	a. < 20 yr	7	14,9
		b. 20-40 yr	29	61,7
		c. > 40 yr	11	23,4
3	Occupation	a. Student	12	25,5
		b. Civil Servant	6	12,8
		c. Private	11	23,4
		d. Others	18	38,3
4	Income/ pocket money per month	a. < 1 million	9	19,1
		b. 1-2 million	14	29,8
		c. 2-3 million	15	32
		d. > 3 million	9	19,1
5	Address	a. Malang city area	19	40,4
		b. Outside Malang city	28	59,6
6	Product information source	a. Oneself		29,8
		b. Other people	14	55,3
		c. Advertise- ment	7	14,9
7	Frequency of consuming the product per month	a. 1 time	29	61,8
		b. 2 time	13	27,6
		c. 3 time	4	8,5
		d. > 3 times	1	2,1
8	Satisfaction Quality	a. Yes	43	91,5
		b. No	4	8,5

Validity Test and Reliability Test

Research instrument testing was done first to find out its validity and reliability. Validity testing was done by using SPSS 20 software, based on product moment (r) value with $n = 47$ in 5% significance rate.

The result of validity shows that the questions of every attribute can be used to measure the quality of a product, because the value of validity coefficient for consumer interest and satisfaction evaluation rate of every question attribute has $r\text{-count} > r\text{-tabel}$ value. It can be concluded that the relationship for every question was valid [6]. Meanwhile based on reliability testing result it is known that reliability value from each variable is same to and bigger than 0,6. Therefore instrument which is used in this research was reliable [7], which can be seen in Table 2.

Table 2. Result of Reliability Testing

Variable	Alpha Cronbach	Note
Interest Satisfaction	0,906	Reliable
Satisfaction Evaluation of CV. Aneka Rasa	0,945	Reliable
Evaluation Satisfaction of CV "X"	0,947	Reliable

Regular Satisfaction Analysis

1. Matrices of Planning (Whats)

a. Importance to Customer

Regular interest is regular perception towards the importance of every attribute of the recent existing product quality or the product which is offered in fulfilling the need/expectation which can be seen in Table 3.

Table 3. Regular Interest Rate

No	Attribute	Interest	Ranking
1	Chip texture	4,17	8
2	Color matches the original	4,21	7
3	Jackfruit chip taste	4,53	1
4	Special scent of jackfruit	4,12	9
5	Price to quality	4,21	6
6	Cheaper price than the competitor	4,04	12
7	Information completeness	4,42	4
8	Volume/packing stability	4,45	2
9	Packing size	4,06	11
10	Outlet sanitation	4,43	3
11	Outlet ease of access	3,98	13
12	Order responsiveness	4,12	10
13	Outlet convenience	4,30	5

The highest degree of importance to customer in the jackfruit chips product is the taste of jackfruit chips attribute equal to 4.53. Customers will be able to buy products jackfruit chips when the flavor products produced in accordance with customer expectations. The flavors in this case is one of the intrinsic product attributes. Sensory aspect is the most important thing in some products, especially in food products [8]. Consumer products typical souvenirs more emphasis on flavor attributes [9].

b. Customer Satisfaction Performance(CSP)

The rating of regular satisfaction rate of jackfruit chip product is obtained from the result of questionnaires evaluation spread. This result is the picture of business unit performance in meeting its regulars' need. The result of quality rating of jackfruit chip product from CV. Aneka Rasa is compared to jackfruit chip product from CV "X" which is also a business product which produces special snack from Malang in Sanan snack center, Malang city. The calculation of performance of consumer satisfaction attribute can be seen in Table 4.

Table 4. Comparison of CSP Calculation Result

No.	Regular Expectancy Attribute	CSP	
		Aneka Rasa	CV "X"
1	Jackfruit chip texture	4,28*	4,30
2	Color similar to the original	4,28	4,06
3	Jackfruit chip taste	4,36	4,21
4	Special jackfruit scent	4,20	4,13
5	Price to quality	4,30	4,11
6	Cheaper price than the competitor	4,17	3,96
7	Information completeness	4,21	4,09
8	Volume/packing stability	4,17	3,91
9	Packing size	4,02*	4,13
10	Outlet sanitation	4,26	4,04
11	Outlet ease of access	4,13*	4,17
12	Order responsiveness	4,15*	4,21
13	Outlet convenience	4,19	4,17

Based on Table 4 it is known that 13 Aneka Rasa jackfruit chip product contains 9 Customer Satisfaction Performance (CSP) value which is higher than its competitor and it has 4 CSP value which is lower than the competitor. Eventhough those four attributes has four CSP value which is lower than its competitor, it doesn't give big effect of consumer satisfaction towards the business unit, because the consumers think that the interest rate of those four attributes are low based on importance to customer value in Table 3.

c. Target Value for Every Attribute (Goal)

Target value is set by doing achievement comparison of regular evaluation from Aneka Rasa and its competitor. The result then becomes reference for business unit in improving regular expectancy towards Aneka Rasa jackfruit chip product which is in Table 5. The highest target value is 4,36 which is chip taste attribute, because the good taste of the product influence the consumer perception about the product very much. The lowest value of the attribute is packing size, because jackfruit chip is one of chips which is high-priced product, so the size does not vary and it is not produced in big amount to keep it crunchy.

The lowest value of the target was the package sizes attribute, because jackfruit chips is one of chips which is high-priced product, so the so the size does not vary and it is not produced in big amount to keep it crunchy. Other pack sizes on the product will be produced if there is order the product by the consumer. The food product has a certain resistance limits, where there will be physical or non-physical change that is needed in order to manage the quality of the product remains the same quality when it reached the hands of consumers [10].

Table 5. Goal Value

No.	Regular Expectancy Attribute	Target Value (Goal)
1	Jackfruit chip texture	4,30
2	Color based on the original	4,28
3	Jackfruit chip taste	4,36
4	Special jackfruit scent	4,20
5	Price to quality	4,30
6	Cheaper price than the competitor	4,17
7	Information completeness	4,21
8	Volume/packing stability	4,17
9	Packing size	4,13
10	Outlet sanitation	4,26
11	Outlet ease of access	4,17
12	Order responsiveness	4,21
13	Outlet convenience	4,19

d. Attribute Weight (Raw Weight)

Priority weight needs to be determined first to be able to increase and develop regular satisfaction attribute towards CV. Aneka Rasa Malang product. This value is obtained based on regular interest rate, improvement ratio, and selling point and the result which can be seen in Table 6.

In Table 6 it is known that there is 2 attributes which have the highest weight with same value which is 7,5 chip taste and volume stability per

packing attribute for Aneka Rasa Malang which need to improve in order to meet the regular need.

Table 6. Raw Weight Calculation Result

No.	Regular Expectancy Attribute	Raw Weight
1	Jackfruit chip texture	4,82
2	Color based on the original	4,8*
3	Jackfruit chip taste	7,5**
4	Special jackfruit scent	4,8*
5	Price to quality	4,8*
6	Cheaper price than the competitor	4,8*
7	Information completeness	6
8	Volume/packing stability	7,5**
9	Packing size	4,93
10	Outlet sanitation	6
11	Outlet ease of access	4,85
12	Order responsiveness	4,87
13	Outlet convenience	6

Note : * = Having a Lowest Weight

** = Having a Highest Weight

Flavor attributes was the highest attributes because of an early indication that can be perceived by the senses in assessing food products [11]. The high value of the raw weight will be a major concern for companies that need to be improved in order to meet customer satisfaction [12].

2. Technical Response (Hows)

Technical response (*hows*) contains the vendor's need and interest, which is obtained by translating the expectancy or wish of the regulars to the characteristic improvement. Therefore this matrice can be said as the opposite side of *whats*matrices [13]. The vendor which is selected as the core of the quality assessment is CV. Aneka Rasa Malang which producess jackfruit chip and the technical characteristic can be obtained by doing interview.

This technical response identification is based on product attributes which were derived from the result of the previous survey and interview, which is divided into 4 criteria, which are product quality, product price, product packing and service. Potential technical response determinationis done by using AHP method.

The phase of determining the potential mass is done by calculating the geometric average, calculating the value of criteria and the consistency ratio to determine the scoring consistency. The technical response table of customers' satisfactory towards jackfruit chips manufactured by CV. Aneka Rasa can be seen on Table 7 which contains three parts, they are:

1. The main purpose is the technical response on consumers' satisfactory on the jackfruit chips product.
2. The criteria based on the product attributes, they are product quality, price, packaging, and service.
3. Strategies as initial identifications from many kinds of technical characteristics

Table 7. Technical Response of Consumer's Satisfaction

Level	Attribute	Value
Criteria	Quality of Product	0,156
	Price of Product	0,438
	Package of Product	0,241
	Service	0,165
Strategy	Selection of Fruit Quality	0,177
	Storage	0,099
	Preparation's Technic	0,111
	Packaging Technic	0,117
	Determination of the selling price of the product	0,383
	Quickness on responding consumers	0,113

On this response table, consumers' satisfactory can be determined on the criteria level, the product's price is on its peak. On the level of strategy, determining the products' price is also on its peak. By determining each level's value, the result can be prioritized on refining and perfecting the jackfruit chips product to improve customers' satisfactory. Price variable influences the customers' satisfactory, because the price relates to the product marketing for the consumers and also payment comparison compared to the other trading unit, because consumers are aware of payment scheme. If the consumers are satisfied with the quality and the payment scheme and is not considered burdening, the consumers are tend to feel satisfied with the product [14]. More easier and appropriate payments that made by unit then will be increase customer satisfaction [15].

Consistency Ratio

Consistency Ratio (CR) is a value which is used to find out respondent consistency rate in doing rating within every technical respond criteria for consumer satisfaction increase in CV. Aneka Rasa, Malang. Respondent is seen to be consistent if the ratio value is less than 0,1. Consistency ratio must be 10 % or less. If the condition is not fulfilled then the information quality must be fixed by fixing the comparing pairing questions [2].

Primary data result of consistency rate (CR) from every level is smaller than 0,1 which is 0,066415 for level 2 and 0,060828 for level 3. This shows that every level has been consistent and does not need any repetition in its calculation.

3. Relation Matrices on Whats and Hows

Interaction between *whats* and *hows* attributes which are integrated will show a supportive relation between each attributes. It is really needed since both of them comes from a different source.

	Selecting Fruit Quality	Proper Storage Place	Proper Processing Technic	Proper Packaging Technic	Proper Price	Quickness on Responding Consumers
Jackfruit chips texture		●	○	●		●
Color matches the original	○	○				
The taste of jackfruit chips	●	●	●	○		△
Typical smell of jackfruit		△	○			
Price to quality	●		●	○	●	○
Lower price compared to the competitors					△	
Giving complete information						
Volume stability of the package					○	
Package size				●		
Outlet cleanliness						
Outlet reachability						○
Quickness on responding consumers			●	○		●
Outlet convenience						○

Figure 1. Correlation matrices on Consumer's Expectation and Technical Response

By OFD analysis, the relation between consumers' expectation and the technical response gained can be determined. this relation is marked by each symbol which has a different meaning with the 1-3-9 scale. The symbols used can be read on table 6. The correlation between the consumers' expectation and the technical characteristics are mostly determined by symbols. There are commonly three levels of symbol, which are low, medium, and strong [16]. This relation is then shown on figure 1 which is a fragment of House of Quality.

4. Benchmarking

Benchmarking is done to determine the performance level from the technical response used as a work comparison on that influences the quality of jackfruit chips produced by Aneka rasa, compared to its competitor "CV X". The benchmarking score is gained by multiplying the values of each attribute of *whats* and *hows* with the satisfactory value on "aneka rasa" products which then divided with the correlation matrices of *whats* and *hows*. Based on the calculation

result gained towards their performance, it can be seen on Table 8.

Table 8. The Result of Performance Comparison.

No	Respon Teknis	Aneka Rasa	CV "X"
1	Selecting fruit quality	4,323	4,146
2	Proper storage place	4,309	4,223
3	Proper processing technic	4,265	4,184
4	Proper packaging technic	4,191*	4,202
5	Proper price	4,260	4,052
6	Quickness on responding consumers	4,208*	4,220

Note : *= having a lower performance score

5. Target

Target is planning an action, or ways done to fulfill the requirements from the technical response based on the performance comparison on calculating the benchmarking. It can be used by Aneka Rasa on determining what action should be done on improving customers' satisfactory, what should be done is to improve or to maintain the attribute which fits the target. Based on performance comparison, the value targeted to be gained can be seen on Table 9.

To decide the value of target, it can be seen based on the benchmarking score comparison between Aneka Rasa and its competitor CV "X", since there are some attributes that has a lower value compared to the competitor, therefore Aneka rasa needs to do some improvements in accordance with the performance comparison. Determining the target score is based on the highest score by of the competitor on their performance in benchmarking, and also adapting on the level of easiness of each attributes on improving the quality [13].

Table 9. Target Values

No	Technical response	Perfor- mance		Target	Note
		AR	X		
1	Selecting Fruit Quality	4,32	4,15	4,32	-
2	Proper Storage Place	4,31	4,22	4,31	-
3	Proper Processing Technic	4,27	4,18	4,27	-
4	Proper Packaging Technic	4,19*	4,20	4,20	Improved
5	Proper Price	4,26	4,05	4,26	-
6	Quickness on Responding Customers	4,21*	4,22	4,22	Improved

Figure 2. House of Quality

Planning Quality Improvement Strategy

1. Customers satisfactory

Customers satisfactory is one of the main factors as well as the most essential one on determining strategy on improving the quality for the trading company, in accordance with the similar products and also new products, the quality of the products should be improved to make able to compete on fulfilling consumers' expectation. A qualified product is defined as anything that can be offered by the producer to be determined, asked, searched, purchased, used, or to be consumed by customers as a media for fulfilling their needs [17].

Strategy on improving customers satisfactory on this research has been done by integrating QFD and AHP done on CV. Aneka rasa has their main product of jackfruit chips. Based on the production, it can be known that the jackfruit chips product of AnekaRasa needs some strategies to do to make it compatible. Planning this strategy on quality improving is done based on the rank and the capacity of each attributes on the strategy planning matrices and the result of quality house. On figure 2, it can be known that the form house of quality of the jackfruit with the integrating result of QFD and AHP.

According to a survey by the consumer, if the products can meet the needs and provide customer satisfaction, the distance was not much of a problem for consumers. Texture jackfruit chips have a weighting of 4.82. In lows with equal weights for each attribute of 4.8 is the color of jackfruit chips, typical aroma jackfruit, price quality and cheaper prices than competitors. The higher the weight value of each quality attribute, then the attributes increasingly required by customers to meet expectations [13].

The factors that affect customer satisfaction on products typical souvenirs Malang stated that the dominant factor influencing customer satisfaction conducted by questionnaire that observed on the changes taking place in society and the observation of people's tastes in mind that attributes the main influencing factor is the personality (conformance level of education, age, ability to purchase) and price factors namely the suitability of flavors, packaging variations, texture with selling prices. Generate enough eigen values higher than other attributes such as promotion, culture, knowledge, location or even a lifestyle [18]. In these two studies it is known that from the various attributes that affect customer satisfaction and assess which have been adapted to technical response that allows to apply,

obtained in common that the price attribute is an attribute that greatly affect the life cycle of the product and the quality of the product. The price mentioned is the price that has reached the value of production and still make a profit. The better the quality of the resulting price with the resulting product can be more competitive with similar competitor products on the market.

the proper package to keep the ingredients, a proper price for selling, and being alerted on consumers' expectation.

Based on the data processing by using AHP method, it resulted that the priority of technical responses is to determine the product price to attract the consumers, selecting fruits quality as the chips' main ingredient, proper packaging

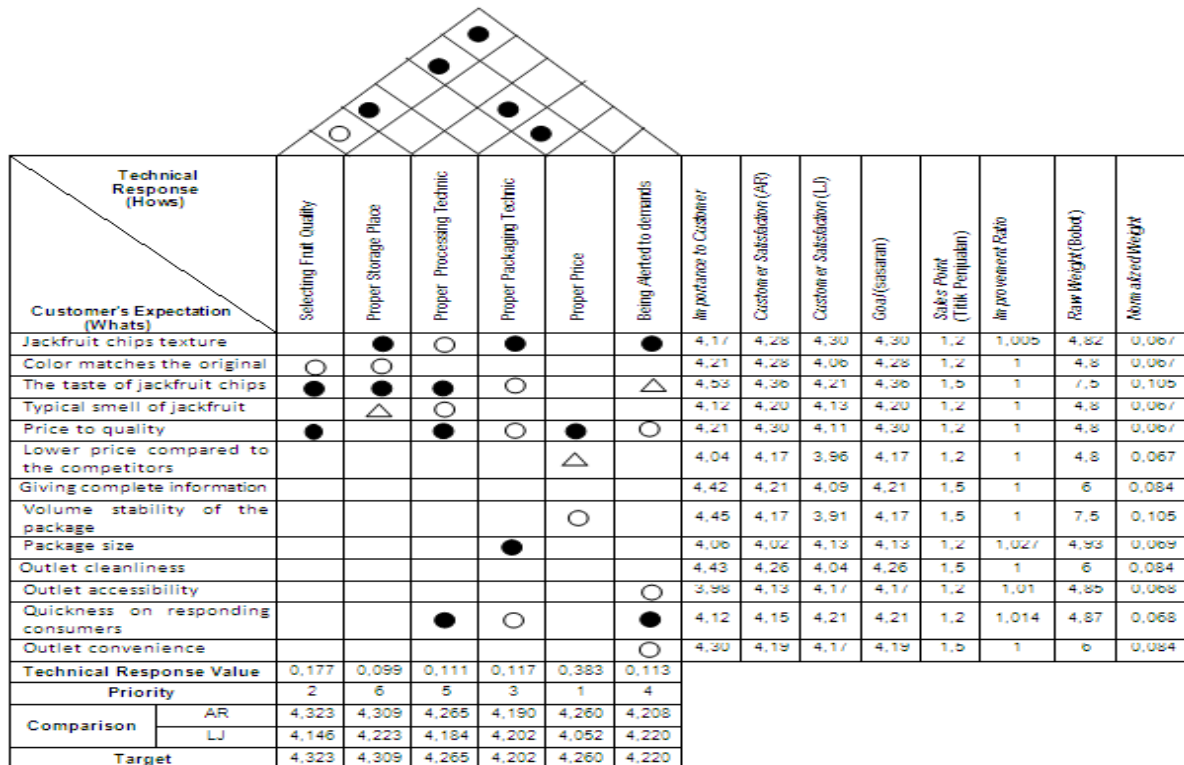


Figure 2. House of Quality

2. Technical Responses Strategy

The ability level of a trading unit should be determined on operational activities. This is aimed at making everything done maximally and not to force something beyond the capacity of a company. The technical response on this research is gained from the interview results and a questionnaire filled by the owner of the CV. Aneka Rasa and academicians. When performed, the technical response gained is the technical response done recently or on short-term, meanwhile the strategy-making is done based on the house of quality that has been formed on figure 2.

The result of distributing the questionnaire and also the interview, there are some technical response that can be done by CV. Aneka Rasa on fulfilling consumers' expectation and to improve the product quality, which is selecting the qualified fruit as their main ingredients, selecting

technic, a quick response on consumers' needs, and a proper storage place.

Based on table 10, it can be known that to improve the quality, the trading unit needs to do some strategies. The first strategy is to determine the proper price for selling the product. A proper and competitive price is equal to consumers' satisfactory. Determining the price of this product can be done by three strategies, which is determining the product's main price based on the cost which is the total of production cost added with the profit margin, determining the price based on the competition, which is giving a lower price compared to the competitor, and giving a price based on a certain purpose, which is by boosting the product image or improving the selling, the second strategy to do select a qualified fruit, it can be done by four ways, which are: selecting a 80% ripe fruit, harvested on 7-7,5 months, and then choosing a scented jackfruit,

,and choosing a jackfruit with perfect skin, no holes. A good quality ingredients can result a high quality product and it indeed influences the selling (19)

Table 10.Planning of Quality Improvement

Order	Technical Response	Strategies on Improving the Quality
1	Determining the product's price	a.Determining the price based on cost b. Product's price based on competition c. Product's price based on certain purposes
2	Selecting the quality of the fruit	a. 80% ripe b. Harvested in 7-7,5 months c. Good scented d. Not damaged nor having holes
3	Packaging technic	a.Packing using PET package 12µm/ PE 15 µm / Al 7 µm / EAA 30 µm b. Providing various sizes of jackfruit chips packages c. Having an aesthetical packaging with ergonomical design.
4	Quickness on responding consumers	a.Giving a quick response towards consumers' request bAdministering the payment quickly c.Providing a souvenir car for approaching the customers

The third strategy on improving the quality is on the packaging technic. The strategy is by packaging by using a PET 12µm/ PE 15 µm / Al 7 µm / EAA 30 µm packaging, providing various sizes of packages since the consumers demand a various packaging, and also displaying a ergonomic package with aesthetics. Packaging holds a big role towards the product. Besides being a place to keep up the quality of the product, it is also works as a marketing media, therefore the making of this package should be concerned [20]. For the fourth strategy, which is a fast response for the consumers, it can be done by giving a service for consumers quickly and doing the payments quickly, and also providing a souvenir car in tourism places to attract consumers. A good service equals consumers' satisfactory [21].

The fifth strategy, which is the processing technic, there are four strategies on improving quality that can be done to help the trading unit on fulfilling the consumers' needs, which is by sorting the fruits based on their ripe level, slicing the fruits for 2mm each, freezing the fruits in - 10°C temperature for one hour before it is vacuumed and fried them in a vacuum fryer with 75°C temperature for 45 minutes in 76cmHg pressure. The processing technology for various food product should match the stated standard procedure since it will influence the final product (22)

CONCLUSION

1. Customers' satisfactory towards a jackfruit chips product "Bu Noer" manufactured by CV. Aneka Rasa, in the point of view of the customers, they give a high score and are satisfied with the chips product. For the satisfactory attributes scored in order are: taste (7,5); complete information (6); having clean outlet (6); outlet convenience (6), package size (4,93); quick response towards requests, (4,87), easily reachable outlet (4,85), texture of the chips (4,82); similar color with its real color (4,8), the price that equals its quality (4,8); cheaper prize compared to competitors (4,8)
2. The trading unit takes attitude on improving the quality by giving a solution in a form of technical response which matches and is possible to be applied, by seeing the priority based on the technical response questionnaire and experts questionnaire .
3. This sets of priority then developed into a strategy for improving the quality that is considered possible by the CV. Aneka rasa, which is determining the compatible price (0.383); selecting the quality of the fruit (0,177); a proper packaging technic (0,117); response quickness for consumers (0,113), proper processing technic and storage place (0,099)

ACKNOWLEDGMENT

The writer expresses her gratitude for the CV. Aneka Rasa Malang and CV "X" which have given a chance to do this research.

REFERENCE

- [1]. Cohen, L. 1995. Quality Function Deployment. How to Make QFD Work for You. Addison-Wesley.

- [2]. Saaty. 1993. Pengambilan Keputusan Bagi Para Pemimpin, Proses Hirarki Analitik untuk Pengambilan Keputusan dalam Situasi yang Kompleks. Pustaka Binama Pressindo. Jakarta.
- [3]. Permana, R. 2010. Rancang Bangun Sistem Pendukung Keputusan Pemilihan Pelanggan Terbaik dengan Model Yager pada PT. Aesha Surabaya. Jurusan Sistem Informasi. Sekolah Tinggi Manajemen Informatika & Teknik Komputer Surabaya. Surabaya
- [4]. Syarifatunisa. 2011. Analisis Strategi Peningkatan Kepuasan Pelanggan Toko Roti Unyil Venus Bogor. Program Sarjana Alih Jenis Manajemen. Departemen Manajemen. Fakultas Ekonomi dan Manajemen. IPB. Bogor
- [5]. Patirol. 2008. Analisis Kepuasan Konsumen Buah - buahan Segar di Swalayan Surya Indah (Studi Kasus di Bone Propinsi Sulawesi Selatan). Fakultas Pertanian. IPB. Bogor
- [6]. Azwar, S. 2003. Reliabilitas dan Validitas. Pustaka Pelajar. Yogyakarta
- [7]. Miller, D. L and Creswell, J.W. 2000. Determining Validity in Qualitative Inquiry. Theory into Practice 39(3).
- [8]. Wood and Lisa. 2007. Functional and symbolic attributes of product selection. Journal of British Food Journal. Vol. 109 No. 2.
- [9]. Soenarya, S.Y. 2005. Analisis Preferensi Konsumen terhadap Produk Dodol Garut (Studi Kasus pada PD. Citra). Tesis. Program Pascasarjana manajemen dan Bisnis. IPB. Bogor
- [10]. Osvald, A dan Stim, L. 2008. A Vehicle Routing Algorithm for The Distribution of Fresh Vegetables and Similar Perishable Food. Journal of Food Engineering. Vol 85 issue 2
- [11]. Ernawati. 2009. Pengembangan Produk Tahu menjadi Tofu chips (Kajian jenis bahan baku, suhu, penggorengan, dan biaya produksi). Jurusan Teknologi Industri Pertanian. UB. Malang
- [12]. Adriantantri, E. 2008. Aplikasi Metode Quality Function Deployment dalam Usaha memenuhi Kepuasan Pelanggan Terhadap Produk Aqua Gelas 240 ml. Prosiding seminar Nasional Tekoin, Bidang Teknik Industri. Institut Teknologi Nasional. Malang
- [13]. Besterfield, D.H, B.M Carol, H.B Glen, and B.S Mary. 2003. *Total Quality Management*. Pearson Education, Inc. Upper Saddle River. New Jersey
- [14]. Muhmin, A. 2002. Instrumental and Interpersonal Determinants of Relationship Satisfaction and Commitment in Industrial Markets. Journal of Business Research 58 (2005) 619– 628
- [15]. Susilo, E. 2005. Analisis Pengaruh Tenaga Penjual, Produk, Harga, dan Dukungan Pemasaran Terhadap Kepuasan Pelanggan. Tesis. Program Studi Magister Manajemen. Universitas Diponegoro. Semarang.
- [16]. Tseng, C. 2011. Prioritization Determination of Project Tasks in QFD Process Using Design Structure Matrix. Journal Quality Vol 18 no.02. Yunlin
- [17]. Parasuraman and Beny. 2003. Pengaruh Kualitas Pelayanan Terhadap Kepercayaan. Vol 21, 24-30.
- [18]. Yuliati, U. 2011. Faktor-faktor yang Mempengaruhi Konsumen dalam Pembelian Makanan Khas Malang. Jurnal Manajemen Bisnis. Volume 1 No.01. Edisi April 2011
- [19]. Dorothea, W.A. 2004. Pengendalian Kualitas Statistik Pendekatan Kuantitatif dalam Manajemen Kualitas. Andi. Yogyakarta
- [20]. Ningtyas, R.S. 2009. Analisis Pengaruh Pengembangan Ukuran Kemasan dan Harga Terhadap Penjualan Produk pada PT. Rena Djaja Semarang. Universitas Diponegoro. Semarang
- [21]. Qin, H 2008. Qin, H., & Prybutok, V. R. (2008). Determinants of customer-perceived service quality in fast food restaurants (FFRs) and their relationship to customer Satisfaction and behavioral intentions. Quality Management Journal, 15(2), 35-50.
- [22]. Dinas Pertanian Tanaman Pangan. 2005. Data Pertanian Tanaman Pangan dan Hortikultura Tahun 2004. Dinas Pertanian Tanaman Pangan. Jambi