POTENCY OF KIPO, A TRADITIONAL FOOD FROM KOTAGEDE – YOGYAKARTA

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ABSTRACT

Kipo is a traditional food from Kotagede Region – Yogyakarta, which is produced from glutinous rice. It was processed through some steps such as weighing, mixing, melting, roasting and packing. This traditional food is not popular like other traditional foods such as gudeg or yangko. Problems concerning this situation were, the information of kipo was not well delivered to the consumers *and people who were doing business with kipo were very limited and only in Kotagede.This research was aimed to disclosure the potency of kipo, if it was developed as industrial foods. The aspects of market, technical and financial were conducted and analyzed. These aspects were used for giving considerations, if this product could be developed in the future. The results depicted, that from the market aspect, value kipo consumer's attitude index was good (3.8845 from 5). The technical aspect showed, that this industry was quite small scale with processing capacity only 19 kg product per day, used 5 men power and 60 m^2 area.Based on the financial aspect at actual capacity, the results showed Net Present Value was Rp. 70,180,679; Payback Period 1.21 years; Profitability Index 5.51; Internal Rate of Return 98.5% and Break Even Point was Rp. 505,414 or 212,693 kipo. This industry was very sensitive to the increase of interest level, total cost and decrease of price product.Some challenged aspects of kipo were, it was produced from naural sources such as glutinous rice, coconut, brown sugar and also natural food colouring agent. The traditional process was still kept and the people could enjoy how it was produced. This is the challenge to develop the traditional food as part of culinary or historical tour.*

Keyword : Kipo

INTRODUCTION

Traditional foods are usually processed based on original recipe, which are already popular in society and they use certain local raw materials and have unique tastes suitable with local society. Traditional foods have benefit for the human health, because they have unique sensory characteristics, high nutrition value and some of them have special physiological functions, so they are called functional foods.

Yogyakarta is famous as a cultural city, because in this city the Sultan up to now rules the province government and the tradition form the ancient time is still looked after by the society and some of them are protected and serve as society heritages. The availability of some traditional foods in Yogyakarta plays an important role for attracting the tourism. Gudeg, geplak and yangko are already well known for the foreigners, but other traditional foods are available and one of them is Kipo.

Kipo is a traditional food which comes from Kotagede region in Yogyakarta. It exists from the time of Ancient Mataram Kingdom until now. At that time kipo was served as snack foods for the king and his family, so kipo was an exclusive food and could predict the level of family who consumed it. The name of Kipo was come from Javanese question "iki opo" or "what is this" and abbreviated into kipo.

The kipo is such as semi-wet cake which is produced form glutinous rice flour, coconut and palm sugar. The process is very simple, as follow; mixing, cake forming, melting, roasting and packing. Usually kipo is packed by banana leaves as primary

packaging and paper as secondary packaging. At the moment kipo is only produced in Kotagede, because the consumers are limited only in certain areas and it is not well-known if it compares with other Yogyakarta traditional foods. The disadvantage of kipo is its shelf-life that is very short and the producers are very limited only in Kotagede region.

Based on the potency of kipo, the research was focused to disclosure the potency of kipo, if it was developed as industrial foods. The aspects of market, technique and finance were conducted and analyzed. The results were designed as points of considerations if kipo will be developed in the future.

METHODOLOGY

The research was conducted from March to August in the kipo producer "Bu Djito" who lived in Kotagede region. It saw the possibilities to expand the potency of kipo based on marketing, technique and financial aspects. Data were collected from the kipo consumers, processing steps, market and finance.

Primary data was collected by spreading questionnaires to the consumers and producers, observing the processing steps and location, observing the equipments and their capacity. The data from consumers was analyzed by validity test, reliable test and consumer's attitude index. Secondary data was collected from literatures, scientific journals or other sources.

The technical aspect was calculated based on the daily capacity and marketing target. The financial factors for developing the industry were Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index (PI) and Break Even Point (BEP).

RESULTS AND DISCUSSION

Consumer attitude

Kipo was sold at producer's level Rp. 600,- each and only three producers were ready to serve the consumers regularly. The shape of kipo is oval length 4 cm and thickness 1.5 cm, green colour with some dark areas because of roasting process. The market share of the three consumers is followed;

Table 1. Market share of kipo in Kotagede

"Bu Djito"	"Bu Muji"	"Bu Amanah"
700 pack/day	500 pack/day	400 pack/day

Table 1 showed that Bu Djito is still the market leader, because this producer has begun to produce kipo since 1946 and at the moment is the third generation. Bu Djito can keep the original recipe and diversify it continuously.

The consumers came from the Kotagede region, who were familiar with kipo. The consumer attitude index was calculated and based on price, packaging, size, shape, shelf life, taste, texture and purchasing location. Their attitude was shown on table 2.

Table 2. Consumer attitude considerations on purchasing kipo

Attribute	Rank
Taste	1
Colour	2
Packaging	3
Price	4
Size	5
Texture	6
Shape	7
Shelf life	8
Location of purchasing	9

For all attributes the consumer's attitude index of kipo Bu Djito achieved 3.8845 from scale 5. It meant the acceptance of this kipo was good, furthermore the highest rank was gained by the taste of kipo. The consumers preferred to consume kipo because of its taste and colour.

Technical aspects

The processing steps for producing kipo was as followed:

1. Weighing
   The weighing process was conducted to prepare all materials and suitable with daily capacity. It took 2 minutes.

2. Mixing
   The process was aimed to mix gelatinous rice flour with water and other components manually and it produced the ready dough to be formed in the next step. The process took about 2.2 minutes.
3. Forming kipo
   The dough was taken by a spoon and *unti* (mixture of coconut and brown sugar) was placed in the middle manually. The dough was formed like small cake. It took about 2.7 minutes.
4. Roasting
   This process was conducted on clay plate and heat source was stove. Banana leaves were used to cover the plate before kipo was put on it. This process took about 19.04 minutes.
5. Packaging
   After kipo was roasted, it was packaged with paper and banana leaves. Five kipos were put in one pack. The packaging process was conducted manually. The paper consisted of brand, address of producer and production number from National Department of Health. The process took only 6 seconds.

The daily capacity could be calculated as follow (Table 3):

Table 3. Production capacity

Working Station	Capacity			
	Equipment	Time	Kg/hours	Kg/day
Preparation				
1. Glutinous rice weighing	2 kg	2 minutes	60	480
2. Suji leaves water weighing	2 kg	2 minutes	60	480
3. Lime Weighing	2 kg	2 minutes	60	480
4. Coconut Weighing	2 kg	2 minutes	60	480
Rasping	-	15 minutes	-	-
5. Brown sugar Weighing	10 kg	2 minutes	300	2400
Melting	4 kg	1.267 minutes	189.42	151,4
6. Tapioca flour Weighing	2 kg	2 minutes	60	480
Processing				
1. Dough Mixing	1 kg	2.166 minutes	27.7	221.6
Forming				
Roasting	1 kg	2.688 minutes	22.32	178.56
2. Coconut + brown sugar	1,04 kg	19.04 minutes	3.15	25.2
Processing coconut	4 kg	77.233 minutes	0.777	**6.215**
3. Suji leaves water Mixing with lime	0,8 kg	2.66 minutes	16.71	131.68
Packaging				
Packing process	0,03 kg	6 sec/pack	18	144

Table 4. Human resources for kipo production with 19 kg capacity

No.	Working stations	Number of labor
1.	Preparation for glutinous rice, coconut, brown sugar, lime, etc	1
2.	Processing coconut & brown sugar as kernel of kipo	2
3.	Processing of kipo	1
4.	Packaging process	1

The bottle neck of this process was in mixing and processing of coconut and brown sugar which was used as kernel of kipo. The production capacity was only 6.215 kg/day (8 hours working time) and after considering the scraps the production capacity could increase to 8.4035 kg and would produce about 18.126 kg or 19 kg kipo/day. The need of labors for implementing the processing of kipo was 5 men power and the classification of them was shown on table 4. The area for producing kipo and supporting activity areas such as showroom and office was calculated about 60 m^2.

Financial aspects.

Some parameters such as Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index (PI) and Break Even Point (BEP), were used to calculate and to predict possibility for developing kipo in the future. The results of the calculation by MARR 12.75% were depicted on table 5.

Tabel 5. Assessment on Criteria for Investment in Kipo Industry

Criteria	Value
Payback Period (year)	1.21
Net Present Value (Rp)	70,180,679
Profitability Index	5.51
Internal Rate of Return (%)	98.5
Break Event Point (Rp)	506.414
Break Event Point (Unit)	212,693.79

Based on the criteria, the small scale industry of kipo was feasible to be developed or expanded. By IRR for example, the value was very high (98.5%) which was higher than MARR (12.5%). It was caused by the total cost was very low, if it was compared by the revenue.

CONCLUSION

The conclusion of this research was as followed: the consumer acceptance of kipo was good and the consumer attitude index was 3.8845 scale 5 (good preception). For the technical aspect, the daily capacity was 19 kg kipo and it was needed 5 men power and 60 m^2 production and supporting activties area. The results of financial analysis on actual capacity were; Payback Period 1.21 year, Net Present Value Rp 70,180,679, Profitability Index 5.51, Internal Rate of Return 98.5 %, Break Even Point Rp 506,414 or 212,693.79 Kipo.

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