

# TEMPE AGROINDUSTRY'S PROFIT IN HOUSEHOLD SCALE: A CASE STUDY OF TAMAN SARI ENVIRONMENT, BULELENG DISTRICT

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## ABSTRACT

*Buleleng Regency has potential in the agricultural product processing sector. One of them is a household-scale Tempe agro-industry based in the Tamansari area, Kampung Baru Village, Buleleng district. This research is about the Tempe agroindustry in Tamansari. The purpose of this study was to determine: 1. costs, revenues, and income in the household-scale tempe industry in the Tamansari area, Buleleng district, 2. the level of efficiency in the household-scale tempe industry in the Tamansari area, Buleleng district. The respondents are household agro-industries in the Tamansari area which produces tempe only, with a total of 6 (six) entrepreneurs. The data analysis method used is the total revenue obtained from the total revenue minus the total cost of a production process. The results of the study showed that the initial investment of the Tempe agroindustry in Tamansari was Rp. 46,934,167, - with a monthly depreciation fee of Rp. 204,919, -. 1. Tempe producers in the Tamansari area that process soybeans as much as 50 kg/day, on average, pay Rp. 14,139,563, - per month, receiving Rp. 18,788,000, - and get Rp. 4,648,438, -. Meanwhile, for tempe producers who process soybeans as much as 100 kg/day, the average cost is Rp. 26,588,917, - per month, receiving Rp. 32,256,000, - and get Rp. 5,667,083, - and for tempe producers who process soybeans as much as 200 kg/day, the average cost is Rp. 59,192,000, - per month, receiving Rp. 59,192,000, - and get Rp. 8,627,361, -. The tempe industry in Tamansari is feasible to run. Because the efficiency value is more than 1 (one) that is equal to; 1.33 on the soybean scale of 50kg/day, 1.21 on the soybean scale of 100kg/day, and 1.17 on the soybean scale of 200kg/day.*

**Keywords:** *Tempe, income, efficiency, Home Industry*

## 1. INTRODUCTION

An industry that is engaged in agriculture can be named an agro-industry. The name refers to the processing of agricultural products by utilizing raw materials from agriculture, so that they can produce finished products that are ready for consumption, or as raw materials for other industries. Agro-industry development through empowering SMEs (small and medium enterprises) can be used as a strategy to develop the regional economy. Agro-industry can become one of the strategic choices in dealing with many problems. It also has efforts to increase people's economy in rural areas, and create job opportunities. Food processing industry businesses that are developing in society, such as the home industry and small industry. One of the small industries that have development potential is the processing industry of soybeans into tempeh. (Mulyani, et al, 2016).

Buleleng Regency has great potential in the agricultural product processing industry sector. Based on the regional potential conditions of Bumi Panji Sakti, Small and Medium Industries (IKM) are business groups that contribute to

absorbing labor and becoming a source of community income. One of them is the tempe agro-industry (*home industry*) which is centered in the Tamansari Environment, Kampung Baru Village, Buleleng District. The Tempe industry in Buleleng District is a *home industry*, where most of the workforce is family labor consisting of less than 5 (five) people.

The business producers have the goal of generating income from business activities. They don't want to experience any kind of loss. However, with some of the obstacles that exist, not all producers gain business success. To overcome the issue, the producers need to expand their revenue. One way to increase revenue is to increase efficiency without compromising quality. Through all those statements, it is necessary to discuss; 1) costs, revenues, and income in the household-scale Tempe industry business in the Tamansari Environment, Buleleng District. 2) The level of efficiency in the household scale Tempe industry in Tamansari Environment, Buleleng District.

## 2. RESEARCH METODOLOGY

This research was conducted in Tamansari Environment, Buleleng District, Buleleng Regency. Several considerations make the research location take place at Buleleng, which were: 1) The tempe industry in the sub-district had been recorded at the Office of Industry and Trade of Buleleng Regency. 2). Buleleng becomes the largest soybean producer in 2015-2016. The research was conducted from June to July 2018. The respondents were from household agro-industry in the Tamansari environment which only produces tempeh. There are 6 (six) entrepreneurs that produce Tempe. The data analysis method used is the total revenue obtained from the total revenue minus the total cost of a production process.

## 3. RESULTS AND DISCUSSION

### Business costs

The average cost of the tempeh home industry in the Tamansari environment is presented in table no 1 below.

Table 1. The average total cost of the tempe industry in the Tamansari environment

No	Production Volume		Fixed cost	Variable Cost	Total cost
	Soya bean /day (kg)				
1	50		184,063	13,955,500	14,139,563
2	100		194,583	26,394,333	26,588,917
3	200		252,639	50,312,000	50,564,639

Based on table number 1, the total cost in June 2018 incurred by Tempe producers in the Tamansari environment for processing 50 kg of soybeans per day was an average of Rp. 14,139,563, -. Whereas the total cost for processing 100 kg of soybeans per day is an average of Rp. 26,588,917, -. And the total cost for processing 200 kg of soybeans per day is an average of Rp. 50,564,639, -

### Business Acceptance

Tempe entrepreneurs' income does not only come from the sale of tempe but also the sale of its dregs. The average income for a household-scale Tempe industry business in the Tamansari environment in June 2018, which processes 50 kg of soybeans per day, is Rp. 18,788,000., while those who process 100 kg of

soybeans per day are Rp. 32,256,000., and those who process 200 kg of soybeans per day are Rp. 59,192,000.

### Income

The income earned by Tempe entrepreneurs in June 2018 in the Tamansari environment is the difference between the receipts received from selling Tempe and the total costs incurred that month by producers. The household-scale Tempe agro-industry business income in June 2018 in the Tamansari environment can be seen in table 2 as follows;

Table 1 The average total Income of the Tempe industry in the Tamansari environment

No	Production Volume Soya bean/ day (kg)	Total Admissions (IDR)	Total cost	Income
1	50	18,788,000	14,139,563	4,648,438
2	100	32,256,000	26,588,917	5,667,083
3	200	59,192,000	50,564,639	8,627,361

Based on Table number 2, it can be seen that the income of Tempe entrepreneurs does not only come from the sale of Tempe but also the sale of Tempe's dregs. The average income for a household-scale Tempe industry business in the Tamansari environment in June 2018, which processes 50 kg of soybeans per day, is Rp. 18,788,000., while those who process 100 kg of soybeans per day are Rp. 32,256,000., and those who process 200 kg of soybeans per day are Rp. 59,192,000.

The home industry, which processes 200 kg of soybean per day, produces 6,160 packets of tempeh and 112 kg of Tempe dregs. Meanwhile, home industries that process soybeans on a scale of 100 kg earn the highest income in the Tamansari sub-district, which is Rp. 5,667,083 per month.

The home industry, which processes 100 kg per day, produces 3,360 packets of tempeh and 56 kg of Tempe dregs. Home industries that process soybeans on a scale of 50 kg obtain the highest income in the Tamansari sub-district, which is Rp. 4,648,438 per month. The home industry, which processes 100 kg per day, produces 1,960 packets of tempeh and 28 kg of Tempe dregs.

The income earned by the Tempe home industry in the Tamansari environment, Buleleng sub-district, does not only come from the sale of Tempe but also the sale of Tempe dregs. 1 (one) pack of tempeh sells for Rp. 9,500 where marketing covers markets around the Tamansari environmental area, namely reaching the Sangsit market, Buleleng Market, Banyuasri Market, and Pancasari Market.

Tempe dregs are sold for Rp. 6,000 per kg. The Tempe dregs are not sold in the market but are sold to processed cracker makers in the Tamansari environment, Buleleng sub-district. From the sales of Tempe and Tempe dregs, it is known that home industries in the Tamansari environment receive greater revenue than the costs incurred.

### Business Efficiency

Business efficiency can be calculated from the comparison between the amount of revenue from tempe production and the costs used to produce tempe by using the R/C ratio.

This can be seen in Table 3 below.

Table 2 The total Business Efficiency of the Tempe industry in the Tamansari environment

No	Soybean Production Scale (kg)	Total Sales (Rp)	Total Cost (Rp)	R/C (efficiency)
1	50	18,788,000	14,139,563	1.33
2	100	32,256,000	26,588,917	1.21
3	200	59,192,000	50,564,639	1.17

In table 3, it can be seen that the value of the efficiency of an industrial business that produces tempeh with 50 kg/day of soybean as raw material is 1.33. which means that for every 1 rupiah of costs incurred by Tempe producers, receipts or benefits will be obtained 1.33 times the costs incurred.

The efficiency value of an industrial business that produces tempeh with 100 kg/day of soybean as raw material is 1.21. while the efficiency value of an industrial business that produces tempeh with soybean raw materials of 200 kg/day is 1.17.

#### 4. CONCLUSION

##### Conclusion

Based on the results of research conducted on the household-scale Tempe industry in the Tamansari environment, Buleleng sub-district, it can be concluded that:

1. Tempe producers in the Tamansari area who process 50 kg of soybeans/day spend an average of Rp. 14,139,563, - per month. However, they earn Rp. 18,788,000, - and get an income of Rp. 4,648,438, -. Whereas, producers who process as much as 100 kg of soybeans/day, spend an average of Rp. 26,588,917, - per month. As the result, they earn Rp. 32,256,000, - and have income Rp. 5,667,083, -. Last but not least, Tempe producers who process 200 kg of soybeans/day, spend an average of Rp. 50,564,639, - per month. As a replacement, Tempe producers get Rp. 59,192,000, - and earn Rp. 8,627,361, - respectively.

2. The Tempe industry in the Tamansari environment is feasible to run. The fact can be seen due to the efficiency value is more than 1 (one), namely; 1.33 on a scale of 50 kg/day soybean raw material, 1.21 on a scale of 100 kg/day soybean raw material, and 1.17 on a scale of 200 kg/day soybean raw material.

##### Suggestion

Based on the results of the analysis that has been carried out in this study, it can be suggested to the household-scale Tempe industry in the Tamansari environment, the Buleleng sub-district runs its production at a processing scale of 50 kg/day of soybean raw material because based on research results the highest efficiency value of the three production scales, namely processing 50 kg/day, 100 kg/day and 200 kg/day are on a scale of 50 kg/day with an efficiency value of 1.33.

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