

33.pdf

by

FILE	33.PDF (707.62K)	WORD COUNT	3268
TIME SUBMITTED	29-SEP-2020 02:11PM (UTC+0700)	CHARACTER COUNT	17504
SUBMISSION ID	1400115627		

PAPER • OPEN ACCESS

The strategy of strengthening business of salt-boiled fish scad (*Decapterus ruselli*) in Bulukumba Regency

5

To cite this article: A M Ichwan *et al* 2020 *IOP Conf. Ser.: Earth Environ. Sci.* **492** 012122

View the [article online](#) for updates and enhancements.

The strategy of strengthening business of salt-boiled fish scad (*Decapterus ruselli*) in Bulukumba Regency

A M Ichwan¹, S S Adhawati², and Jusni³

¹Study Program of Agribusiness at Postgraduate, Hasanuddin University, Makassar, South Sulawesi, Indonesia

²Department of Fisheries Faculty of Marine Science and Fisheries, Hasanuddin University, Makassar, South Sulawesi, Indonesia

³Department of Management Faculty of Economic and Business, Hasanuddin University, Makassar, South Sulawesi, Indonesia

E-mail: auliamagfhiraichwan@pasca.unhas.ac.id

Abstract. Product quality is very important to create competitive strategies with other companies and to improve value add, extend product life and extend the reach of marketing. One of the fisheries processing activities in Bulukumba Regency is salt-boiled fish, but these businesses still pay less attention to sanitation and hygiene which results in low quality and durability of salt-boiled fish product. This research aims to analyze the strategy to strengthen the salt-boiled fish processing business in improving product quality. This research was conducted in salt-boiled fish POKLAHSAR (Processing and Marketing Group) business in Bulukumba Regency, South Sulawesi. The data were analyzed with descriptive qualitatively and quantitatively using SWOT analyses. The results of the research show that the Internal Factors Analysis Summary (IFAS) difference score was -0.35, while the External Factors Analysis Summary (EFAS) score was 1.60. This shows that the strengthening strategy is in quadrant III which means the company faces enormous market opportunities, but on the other hand faces some internal obstacles / weaknesses. The focus of this strategy is to minimize the company's internal problems so that it can create a better market (turn around). The strategies that can be applied are to increase product quality through government's policies such as GMP and SSOP training, to apply sanitation and hygiene system to processing business and to manage the business finance well so it can increase the existing facilities and infrastructures by following technological development.

1. Introduction

Processing of fishery products plays an important role in postharvest activities, given that fishery products are perishable goods. Therefore, fast and precise handling is needed to maintain its quality until the product reaches the consumer. The fish processing techniques that are well known in the community both traditionally and modernly is Pemandangan, which in principle is carried out to stop or inhibit the growth of microorganisms and enzyme activities in fish bodies that can cause damage. Pemandangan is preserving fish as well as fish processing using salting and boiling [1,2].

Product quality is very important in creating competitive strategies with other companies and providing added value, extending shelf life and expanding marketing reach. A product is said to have good quality if the product has conformed to established standards. One of the standards set by the government is the Indonesian National Standard (SNI). Efforts must be made in order to improve the

³ Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

Published under licence by IOP Publishing Ltd

quality of fishery products is to control the processing through the implementation of a food safety management system in the form of a basic feasibility program based on the concept of an integrated quality management program. Handling and processing techniques, sanitation and hygiene techniques as well as quality and safety requirements for boiled fish are arranged in a standard namely SNI 2717: 2009 [3].

Based on the results of previous studies, according to 2018 data from the Marine and Fisheries Service of Bulukumba Regency, there are 5 groups of pindang fish processing businesses, which are supported by abundant raw materials, namely the catch of fish scad (*Decapterus ruselli*) in 2017 which reached 8,192 tons. Seeing the conditions on the ground, this business is very helpful in improving the economy and welfare of the community. However, the process of screening carried out by the business group is still relatively simple because it uses simple equipment and is still manual, and the application of sanitation and hygiene aspects at each stage of the production process is still very minimal so that the yield of salt-boiled fish products is of low quality and can only last 2 up to 3 days outside the refrigerator [4].

For this reason, it is expected that the implementation of quality management in the Business of Salt-Boiled Fish Scad (*Decapterus ruselli*) in Bulukumba Regency can have a long-term goal of becoming a superior product of Bulukumba Regency that can penetrate the export market.

2. Materials and methods

This research was conducted in the POKLAHSAR (Processing and Marketing Group) effort of salt-boiled fish in Bulukumba Regency. This group consists of 5 groups, namely lion ikan pindang's group, merpati ikan pindang, garuda pa'gantengan, pindang bina mandiri, and harapan jaya in Herlang and Kajang sub-district. This research conducted from July to September 2019.

Sampling in this study using the census method that is the technique of determining the sample with all members of the population used as a sample. All processing groups of 5 units were used as research samples, with each group consisting of a chairman and 9 members, with a total of 10 people. Then the cluster is taken. The sample taken in this study is the chairman and 3 representative members of each group taken by simple random sampling.

This type of research is a case study research using descriptive qualitative and quantitative methods that examine the problems that occur in the development of the salt-boiled fish scad (*Decapterus ruselli*) business in Bulukumba Regency, especially in the application of quality management, which in turn will produce some formulation of strengthening strategies. The data obtained will be analyzed using SWOT analysis. The use of SWOT analysis is intended to facilitate the identification of strengths, weaknesses, opportunities, and threats from the development of processing groups.

3. Results and discussion

According to [5] This analysis compares internal factors (strengths and weaknesses) and external factors (opportunities and threats). Both factors must be considered in a SWOT analysis.

3.1 . Identification of internal factors

The strengths and weaknesses of the pindang fish processing business in Bulukumba Regency are as follows:

3.1.1 . *Human Resources*. Human resources are important resources for organizations because human resources design and produce goods and services. The salt-boiled fish processing community has a high level of perseverance and tenacity, this can be seen from the production of up to 150 kg per day, as well as a high level of curiosity to strengthen its business.

3.1.2. *Production*. The process of processing of the salt-boiled fish scad (*Decapterus ruselli*) is very simple and does not require a long time. So that it can produce high production results in one production. However, the processing of salt-boiled fish in Bulukumba Regency does not have an SOP

(Standard Operating Procedure), does not pay attention to sanitation and hygiene and only focuses on the quantity of production. This is making the low quality of the resulting product.

3.1.3. Finance. This processing business has an average profit which is quite high for a one-time production of Rp 1,113,284 [4]. This shows that this business is very profitable and has a large enough capital to be developed both in terms of facilities and infrastructure and business scale. But on the other hand, the consumptive nature of processors and do not understand how to manage good budgets cause this business has not developed. So there is no improvement in facilities and infrastructure to support the processing business in the future.

3.2. Identification of external factors

The opportunity and threat variables faced by the processing of salt-boiled fish in Bulukumba Regency are as follows:

3.2.1. Consumer demand. The number of sales for each production reaches around 99-175 kg [4]. This shows the high demand of consumers in the market. But on the other hand, the influence of seasons on raw materials can be a threat to processors in producing salt-boiled fish, so the amount of production will be unstable. In addition, due to the influence of the season, the price of raw materials fluctuates.

3.2.2. Government. The government, especially related agencies, has provided assistance in the form of production equipment assistance to processing groups for 3 times. With this assistance can be an opportunity for salt-boiled fish processors to increase production. In addition, the involvement of extension workers for each of the salt-boiled fish processing businesses is also an opportunity for processors to further improve product quality, for example through training on GMP (Good Manufacturing Practice) and SSOP (Sanitation Standard Operating Procedure).

3.2.3. Science and Technology (IPTEK). The development of available information technology is a good opportunity to support business sustainability and improvement. Utilization of good and optimal equipment is an opportunity for this business. The Department of Trade and Industry of Bulukumba Regency will provide guidance related to the packaging of salt-boiled fish products using modern technology such as vacuum sealers so that they can last a long time and can compete with products in the super market.

3.2.4. Competitor. The number of fish processing business operators continues to increase from year to year. According to data from the Bulukumba Regency Fisheries Service, the number of fishers in Bulukumba Regency in 2014 there were 2 business groups and until 2019 there were 5 business groups, each group consisting of 10 people [6]. Every business will always provide added value to its products so that they can sell in the market, for example in terms of product packaging. Not only that, competitor products such as smoked tuna can also be a threat to salt-boiled fish products because smoked tuna can last longer than salt-boiled fish.

3.3. Matrix of SWOT analysis

Based on the identification of internal factors consisting of strengths and weaknesses and external factors consisting of opportunities and threats, the following SWOT analysis matrix is presented below:

The strategies to improve the quality of food products in the micro, small and medium industries, namely by implementing a food quality management system that is friendly to FQMS (Food Quality Management System). There are 5 components in FQM (Food Quality Management) namely: QC (Quality Policy and Strategy), QD (Quality Design), QC (Quality Control), QI (Quality Improvement), and QA (Quality Assurance) [7].

Table 1. SWOT Analysis Matrix

INTERNAL	Strengths	Weaknesses
	a. Adequate human resource skill b. The processing is easy and efficient c. Sufficient business capital	a. No storage facilities (<i>Cold storage</i>) b. Low sanitation and hygiene c. Financial management is not good d. Low product quality
EXTERNAL	Opportunities	Strategies S >> O
	a. Raw materials and supporting materials are always available b. High consumer demand c. Government policies that support business strengthening d. The development of information technology	1. Optimizing skills and availability of raw materials to increase production capacity and meet market demand 2. Improving the quality of production by utilizing the availability of capital and government support 3. Utilizing the development of information technology to expand market reach
		Strategies W >> O
		1. Repair and supply of appropriate technology in the form of facilities and infrastructure that support quality improvement especially storage facilities 2. Improve of product quality through government policies such as GMP and SSOP training 3. Utilizing the role of government to provide guidance in terms of good financial management in a business. 4. Implement sanitation and hygiene systems in processing businesses to improve the quality of salt-boiled fish products
	Threats	Strategies S >> T
	a. Climate and weather affect the price of raw materials b. Competitor products	1. Strengthening the management of procurement of raw materials to overcome the influence of the season. 2. Optimizing adequate business capital to cope with fluctuations in prices of raw materials so that inventories are maintained
		Strategies W >> T
		1. Optimizing the facilities to improve product quality so that it can compete with competitor products 2. Improve of product quality, for example by improving hygienic and attractive packaging so that it can compete with competing products

3.4. Quantitative approach to SWOT analysis

The qualitative SWOT data above can be developed quantitatively through the calculation of SWOT Analysis so that the exact position of the organization is known. To determine the number of quadrants, it is done by assigning rating and weights to the IFAS and EFAS matrix.

Based on the results of the analysis of internal factors (IFAS) in the form of strengths and weaknesses obtained a strength value of 1.20 and a weakness value of 1.55 with a total amount of 2.70 scale (0-4). This shows that internally the salt-boiled fish processing business is feasible for can be developed.

Table 2. IFAS (Internal Factors Analysis Summary) business of salt-boiled fish scad (*Decapterus ruselli*) in Bulukumba Regency.

No	Internal Factors	Weight	Rating	B x R	Information
Strengths					
1	Adequate human resource skills	0,10	3	0,3	The diligent and tenacious attitude possessed by the processor supports the large amount of business production each day
2	The processing is easy and efficient	0,10	3	0,3	Salt-boiled fish processing is very simple and does not require a long time to support the large amount of production
3	Sufficient business capital	0,15	4	0,6	Has a large enough capital to be developed both in terms of facilities and infrastructure and business scale
Total		0,35		1,20	
Weakness					
1	No storage facilities	0,15	3	0,45	The absence of storage facilities results in business weakness in stock management
2	Low sanitation and hygiene	0,20	2	0,4	Low sanitation and hygiene techniques result in low quality of boiled fish products
3	Financial management is not good	0,10	3	0,3	The consumptive nature of the budgeting procedure has not led to good business
4	Low Product Quality	0,20	2	0,4	The results of the quality testing of salt-boiled fish products showed a high ALT value (high number of bacteria in the product)
Total		0,65		1,55	
Total		1,00		2,70	

Based on the analysis of External factors (EFAS) in the form of opportunities and threats, the opportunity value is 2.30 and the threat value is 0.70 with a total of 3.00 scale (0-4). This shows that externally the salt-boiled fish processing business is quite feasible.

To determine the quadrant coordinate points (X, Y) on a SWOT diagram using the formula:

$$\begin{aligned} \text{Coordinate point (X)} &= (\text{Strengths} - \text{Weakness}) \\ &= (1,22 - 1,55) \\ &= -0,35 \end{aligned}$$

$$\begin{aligned} \text{Coordinate point (Y)} &= (\text{Opportunities} - \text{Threats}) \\ &= (2,30 - 0,70) \\ &= 1,60 \end{aligned}$$

Table 3. EFAS (External Factors Analysis Summary) Business of Salt-Boiled Fish Scad (*Decapterus ruselli*) in Bulukumba Regency

No	External Factors	Weight	Rating	B x R	Information
Opportunities					
1	Raw materials and supporting materials are always available	0,15	3	0,45	Raw materials and supporting materials in the production process are always available to support the production process

2	High consumer demand	0,15	3	0,45	The amount of salt-boiled fish production per production shows the high level of demand
3	Government policies that support business strengthening	0,20	4	0,80	Government policies such as assistance in the form equipment and GMP and SSOP training in increasing the quantity and quality of production
4	The development of information technology	0,15	4	0,60	Utilization of information technology can support sustainability and increase business
Total		0,65		2,30	
<i>Threats</i>					
1	Climate and weather affect the price of raw materials	0,20	2	0,40	Seasonal influences on raw materials pose a threat to processors in producing boiled fish due to unstable prices
2	Competitor Products	0,15	2	0,30	The existence of competitor products with better quality, more hygienic and attractive packaging can be a threat in marketing the product
Total		0,35		0,70	
Total		1,00		3,00	

The results of the above calculation can be illustrated in the diagram below:

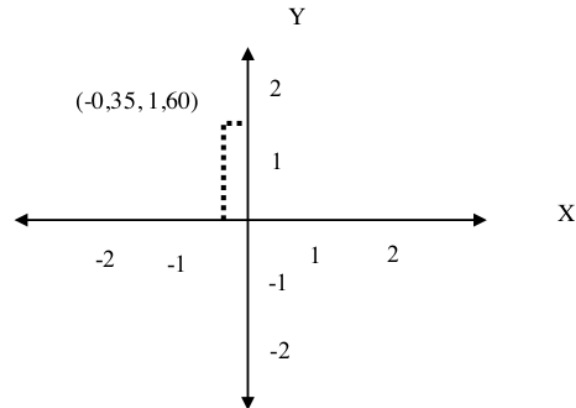


Figure 1. SWOT analysis diagram

This shows that the strengthening strategy is in quadrant III, which means the company faces enormous market opportunities, but on the other hand faces some internal obstacles / weaknesses. The focus of this strategy is to minimize the company's internal problems so that it can create a better market (turn around).

4. Conclusion

The results showed that the Internal Factors Analysis Summary (IFAS) difference score was -0.35, while the External Factors Analysis Summary (EFAS) score was 1.60. This shows that the

strengthening strategy is in quadrant III, which means the company faces enormous market opportunities, but on the other hand faces some internal obstacles / weaknesses. The focus of this strategy is to minimize the company's internal problems so that it can create a better market (turn around). The strategies that can be applied are to increase product quality through government's policies such as GMP and SSOP training, to apply sanitation and hygiene system to processing business and to manage the business finance well so it can increase the existing facilities and infrastructures by following technological development.

References

- [1] Adawyah R 2014 *Pengolahan dan Pengawetan Ikan* (Jakarta: PT. Bumi Aksara)
- [2] Genesa J, Sukendar N K and Regia S 2018 Studi of Making Fungsional Nugget from Skipjack Fish (Katsuwonus pelamis L.) with Noni Fruit Ekstrak (Morinda citrifolia L. *Canrea J. Food Technol. Nutr. Culin. J.* **1** 69–77
- [2] Winarno FG dan Surono 2004 *GMP: Cara Pengolahan Pangan yang Baik*, cetakan ke 2. (Bogor: M-BRIO Press)
- [3] Ichwan A M 2018 *Strategi Pengembangan Usaha Mikro Ikan Layang (Decapterus ruselli) Pindang Di Kecamatan Herlang, Kabupaten Bulukumba* Thesis (Makassar: Universitas Hasanuddin)
- [4] Rangkuti F 2015 *Analisis SWOT Teknik Membedah Kasus Bisnis* (Jakarta: PT.Gramedia Pustaka Utama)
- [5] Dinas Kelautan dan Perikanan Kabupaten Bulukumba 2018 *Jumlah Produksi Ikan Layang (Decapterus ruselli) Tahun 2018* (Bulukumba)
- [6] Dora, Manoj, Maneesh K, Dirk V G, Adrienn M, dan Xavier G 2013 Food Quality Management System: Reviewing Assessment Strategies and a Feasibility Study for European Food Small and Medium-sized Enterprises *Journal of Food Control* **31** 607-616

ORIGINALITY REPORT

% **11**

SIMILARITY INDEX

% **8**

INTERNET SOURCES

% **6**

PUBLICATIONS

% **6**

STUDENT PAPERS

PRIMARY SOURCES

-
- | | | |
|----------|---|-----------|
| 1 | hrmars.com
Internet Source | %2 |
| 2 | Z U Rizqi, A Khairunisa. "Implementation of Supply Chain Risk Management (SCRM) Using House of Risk (HOR): Case Study on Supply Chain of Craft Bag Industry", IOP Conference Series: Materials Science and Engineering, 2020
Publication | %2 |
| 3 | Submitted to Sriwijaya University
Student Paper | %2 |
| 4 | repository.unika.ac.id
Internet Source | %1 |
| 5 | Submitted to CSU, San Jose State University
Student Paper | %1 |
| 6 | Submitted to Colorado Technical University Online
Student Paper | %1 |
| 7 | journal.ipb.ac.id | |

8

Submitted to Universitas Muhammadiyah
Ponorogo

Student Paper

<% 1

9

Submitted to School of Business and
Management ITB

Student Paper

<% 1

10

Submitted to Napier University

Student Paper

<% 1

11

www.fsm3.org

Internet Source

<% 1

12

pt.scribd.com

Internet Source

<% 1

13

Ioannis S. Arvanitoyannis, Konstantinos
Samourelis, Konstantinos V. Kotsanopoulos. "A
critical analysis of ISO audits results", British
Food Journal, 2016

Publication

<% 1