International Journal of Social Science and Economic Research

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

CAPACITY BUILDING OF READY TO SERVE FISH PROCESSOR IN MICRO ENTERPRISES FOR BUSINESS CONTINUITY IN PRINGSEWU DISTRICT

[1]Komang Eke Suwardane, [2]Anna Fatchiya, [2]Basita Ginting Sugihen

[1]Master of Extension Development Graduate Program Bogor Agricultural University, Bogor

[2]Department of Communications and Community Development Science,
Faculty of Human Ecology, Bogor Agricultural University, Bogor

ABSTRACT

Fish processors in Pringsewu district are mostly engaged in micro-scale business. The problem faced by this micro-scale business is the fish processor capacity problem, such as the technical and managerial ability. This research aims to measure the processor capacity, the factors that affect the processor capacity and the effect of processor capacity on the business sustainability. This research was conducted in two fish processor centers, in Pringsewu and Pagelaran districts. Data collection was conducted in April 2018. Data were collected from all 75 fish processors. The data collected were analyzed using descriptive and inferential statistic, with *Statistical Package for Social Science* (SPSS) version 24 and Partial Least Square (PLS) 3 program. The results showed that processor capacity of fish in Pringsewu district was in a low category because they have not expert in technical and managerial skills yet. Three factors that affect the processor capacity is their individual characteristics, extension support, and external support. Individual characteristic factors are the level of formal and non-formal education. The extension support factors are intensity and extension methods. External support factor also of support from the government. Other results indicate that the processor capacity has a positive effect on the business sustainability. The higher the technical and managerial capacity of the processor, the business sustainability in the economic and environmental aspects will be increase.

Keywords: business sustainability, fish processor capacity, micro business.

INTRODUCTION

Fish is one source of food that is needed by humans, because it contains a lot of protein, minerals, vitamins A and D. The content of nutrients contained in fish can support health in the eyes, skin and help the process of bone formation, especially in children under five (Afrianto et

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

al. 1989). Fish including having perishable properties, to overcome this, it is necessary to process immediately. Some prepared foods, such as processed meatballs, dumplings, skin chips, shredded, sticks, baby fish and smoked fish. The processing process certainly uses the right way to get good quality. However, to obtain quality processed fish, quality processing is required according to the standards of the Fish Processing Unit.

Based on the Ministry of Maritime Affairs and Fisheries Regulation No. 72 of 2016, the Fish Processing Unit standard starts from the raw material selection process, raw material handling, processing, use of additional materials, packaging, and proper storage. However, micro-scale fish processors have limited technical and managerial capabilities, such as the ability to access capital and access the market and the ability to partner. The capacity of micro-scale fish processing is still traditional. This is in line with what was disclosed by Nikijuluw (2002) in his research, that the problems often faced by micro business actors are access to capital and access to markets and access to technology. Likewise, what was revealed by Heruwati (2002) in her research that traditional processed fish still have a bad image in the eyes of consumers, because of the low quality and nutritional value, inconsistency in functional properties, and low quality and safety guarantees for consumers.

According to the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 72 of 2016 that Fish processing is a series of activities or treatments carried out by fish processing businessmen from fish raw materials to become end products for human consumption. The good fish processing is to use the guidelines and procedures for processing fish by meeting the requirements for quality and safety assurance of fishery products. The security of fishery products is the conditions and efforts needed to prevent fishery products and products from the possibility of biological, chemical and other contaminants that can interfere, harm and endanger human health and ensure that fishery products and products will not endanger consumers.

Republic of Indonesia Government Regulation Number 57 Year 2015 and Regulation of the Minister of Marine and Fisheries of the Republic of Indonesia Number 72 Year 2016, that to guarantee the quality and safety of fishery products and increase the added value of products, there are four certificates that must be owned by fish processing businessmen, namely Quality Management Program Application Certificate Integrated, Health Certificate of Fish Processing Products and Processing Feasibility Certificate and Fish Processing Certificate. The Certificate of Signs of the Indonesian National Standard from the Product Certification Institute and the MD Circular Permit (Internal Food) from the POM Agency. Likewise, certified Hazard Analysis Critical Control Points (HACCP) which are evidence of carrying out a food safety management system that is based on the awareness that hazards can arise at every step of the production

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

process. But at this time there are still many fish processors with micro-scale businesses that do not have a certificate as a guarantee of quality and safety of processed products.

The characteristics of fish processing with a micro business scale have the results of fisheries sales with a maximum turnover of Rp. 300,000,000.00 per year (Permenkp 2016). The micro-scale fish processing business has assets of IDR 50,000,000. Characteristics of fish processing as micro business actors are characterized by a) business location is not always fixed, b) financial management does not separate family finances from the fish processing business finances, c) using manual technology and d) untrained human resources and e) do not have access banking.

The majority of fish processing in Indonesia is carried out by micro-scale fish processors. There are 36,000 fish processing units still using power manually, without using modern technology (Ministry of Industry 2015). In 2013 in Indonesia, which carried out activities or economic activities in the fish processing business sector had produced fish processed products around Rp. 4, 3 billion of the total number of fish processors (Ministry of Industry 2013).

The availability of fish raw materials in 2014 in Indonesia reached 20.84 million tons from the production of capture fisheries and aquaculture. Capture fisheries are around 30 percent and aquaculture 70 percent (BPS 2015). Aquaculture production in 2014 in Lampung Province was 152,310 tons and fisheries production was 164,155 tons (BPS 2015). In 2015 the production of freshwater aquaculture in Pringsewu Regency amounted to 4,637.49 tons of BPS 2015).

In relation to some of the above problems, it is necessary to increase the capacity of ready-to-eat fish processing micro-enterprises for business sustainability in Pringsewu Regency. The low capacity of a person is related to the low level of formal education, business experience, counseling support (Asta 2015). The high capacity is indicated by an ability to carry out business functions, as well as designing business objectives on an ongoing basis (Fatchiya 2010). Fisheries resources must indeed be managed well, because fisheries resources are very sensitive to human actions (Nikijuluw 2002). According to Leasa (2017) that a person's capacity to run a business directly affects the sustainability of the business owned.

Business sustainability can also be indirectly influenced by individual characteristics and extension support and external support. This was also expressed by Utami (2007) in his research that business sustainability is indirectly influenced by individual characteristics and business support and the environment. According to Subagio (2008) that individual characteristics and capacity of a person influence efforts in increasing business independence. The higher a person's capacity, the more independent the business will be. According to Nurfitriana (2016) that the higher the individual characteristics such as formal and non-formal education, the more business behavior in running a business will increase. The capacity of fast-food fish processing at the

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

micro business scale in Pringsewu Regency is seen from the technical capabilities and managerial capabilities. While the sustainability of the business owned by fish processors as micro business operators in Pringsewu Regency is seen from the economic and social aspects and the environment.

The efforts made for the sustainability of the fish processing business are by increasing the capacity of fast-food fish processing micro-enterprises in Pringsewu Regency. It is also accompanied by high individual characteristics and counseling support and external support. Therefore the need for research is to increase the capacity of ready-to-eat fish processing micro-enterprises for business sustainability in Pringsewu Regency. Based on the description above, the purpose of this study is 1) to measure the level of capacity of micro business fish processors in Pringsewu Regency, 2) to reveal the factors that influence the capacity of micro business fish processors in Pringsewu Regency, 3) to reveal the influence of business fish processing capacity micro to business sustainability in Pringsewu Regency.

METHODOLOGY

The study was conducted in Pringsewu District, Lampung Province, in two sub-districts of fast food processing centers, namely Pringsewu District and Pagelaran. Data collection in April 2018. Data collected by census of all fish processing populations in the two sub-districts were 75 people.

The collected data were analyzed descriptively and inferential tests using the Statistical Product and Service Solution (SPSS) program version 24 and the Partial Least Square (PLS) program. 3. The questionnaire was first tested for its validity and reliability in 30 people in Cirebon District. The test results show that it is valid with r count values ranging from 0.32 to 0.61, the value is greater than the r table value of 0.3. The reliability test results also show that the instrument coefficient value in all questions ranges from 0.685 - 0.874 which means that all instrument items are consistent to be used in the study. According to Sugiyono (2007) if the correlation coefficient is equal to 0.3 or greater than 0.3 then the instrument item is declared valid.

RESULTS AND DISCUSSION

Individual Characteristics

Characteristics of individual fish processors consist of age, non-formal education and formal education as well as business experience. These characteristics are the characteristics of each fish processor. The characteristic conditions of individual fish processors with a scale of micro business are generally low, both in terms of non-formal education and business experience (Table 1). Age is the number of years of ready-to-eat fish processing age. Fish processing age

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

ranges from 14 to 60 years. Most of the age of fish processing is the middle of maturity. Mid-term maturity is a productive age in carrying out an activity. According to Rimbawati (2017) the age that is still productive makes a person able to be actively involved in conducting their business activities. This is in forestry farming activities such as the selection of plant species, provision of seeds, land provision, planting and maintenance.

Table 1: Distribution of fast food fish processing based on individual characteristics

Individual Characteristics		Person	%
Age (Years)			
Young	(<30)	13	17.3
Early Adult	(30-40)	36	48.0
Adult	(41-50)	14	18.7
Old	(>50)	12	16.0
Formal Education			
Elementary (SD)	(1-6)	14	18.7
Junior High (SMP)	(7-9)	25	33.3
Senior High (SMA)	(10-12)	30	40.0
Higher Education	(13-16)	6	8.0
Diploma/S1			
Non-formal Education	(4-5)	74	98.7
Low	(6-7)	1	1.3
High			
Business Experience			
Low	(2)	53	70.7
High	(3)	22	29.3

Note: n=75

According to Devi (2016) that age is an aspect related to one's ability to learn, both in the learning process and actualizing learning outcomes in life experience. However, in this study it is different, that age does not affect the capacity of fast-food fish processing, both in technical and managerial aspects. Most fish processors state that in the processing of ready-to-eat fish, micro businesses do not want to increase the amount of production, with the reason that productivity is now sufficient. Fish processors reveal that increasing the amount of production by adding capital from banks is risky. This is stated by most fish processors in the category of early adulthood, middle age, adulthood and very mature and early aging. Based on Leasa's previous research (2017) that age also does not affect the capacity of enbal processing.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Non-formal education is a training and counseling activity about fish processing that has been followed by fast food fish processors. Training and extension activities that have been followed by fish processors regarding fish processing during the past year are in the very low category of 66.7 percent. As for the results of the study that most fish processors have never participated in training on fish processing. As many as 75 fish processors who had attended training were only 27 processors. While those who do not follow 48 fish processors. Likewise fisheries extension activities that were once followed by fish processors were 76.0 percent.

Formal education is the number of years of schooling that respondents have ever followed. The level of formal education of 10-year respondents is 30 high school education. Fish processors with a Bachelor and Diploma level of 6 people. Elementary school 14 people and junior high school 25 people. The level of formal education of some fish processors is low, with 52 percent and 48 percent classified as high.

According to Nurfitriana (2016) that the higher formal education the higher the level of one's capacity. Likewise according to Subagio (2008) formal education has a significant effect on the capacity of farmers in carrying out farming activities. The level of formal education adopted by ready-to-eat fish processors has a significant effect on the level of fish processing capacity. Business experience is the length of respondents in running a ready-to-eat fish processing business on a micro business scale. The data shows that the length of ready-to-eat fish processors in carrying out fish processing business is the latest with 1 year long and the longest 15 years. As long as the average number of respondents has carried out a fish processing business which is 7 years. The experience of ready-to-eat fish processing business scale of micro business is relatively low at 53.3 percent. The experience of ready-to-eat fish processing business with the scale of micro-business does not affect the capacity of fish processing in running its business. This is in line with the previous research conducted by Leasa (2017) that business experience does not affect the processing capacity and the sustainability of enbal processing business.

Extension Support

Extension support is a factor that comes from outside the fish processor that affects the capacity of ready-to-eat fish processing micro-enterprises for business sustainability. Extension support consisting of extension intensity and suitability of extension materials as well as the accuracy of extension methods are high (Table 2).

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Table 2: Distribution of ready-to-eat fish processing based on extension support

Extension Support		Person	%
Extension intensity			
Low	(4-5)	26	34.7
High	(6-7)	47	65.3
Suitability of extension material			
Low	(2)	3	4
High	(3)	72	96
Accuracy of extension methods			
Low	(2)	18	24
High	(3)	57	76

Note: n=75

The intensity of extension is the frequency of extension workers in carrying out extension activities and visits of extension workers to the fish processing area which aims to change the behavior of fish processors for the better. Based on the results of the study, the intensity of counseling was 62.7 percent (Table 2). The intensity of extension is measured by how often extension activities are held at the research location and how often extension workers come outside the prescribed extension schedule (Table 3).

Table 3: Distribution of ready-to-eat fish processing based on extension intensity

No	Extension intensity	Rarely		Frequently	
		n	%	n	%
1	Organizing counseling activities conducted by the Pringsewu Regency Fisheries Office regarding fish processing.	40	53.3	35	46.7
2	Fisheries extension workers come out of schedule	40	53.3	35	46.7

Note: n=75

Based on data that the level of implementation of extension activities in Pringsewu and Pagelaran Districts related to the processing of ready-to-eat fish conducted by the Fisheries Service of Pringsewu Regency was considered rare by some fish processors, namely 50.7 percent. As for some fish processors who assess the implementation of extension activities have often been carried out. Likewise fisheries extension workers who come outside the schedule are

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

considered rare by some fish processors. Vice versa, some fish processors assess fishery extension workers often come outside the schedule (Table 3). When viewed based on conditions in the field that this is due to the number of extension workers who do not match the number of fish processors with a wide area coverage. This was also expressed by Rimbawati (2017) that the main factor that led to the low visit of extension workers was the limited number of extension workers, while the size of the working area was very wide.

The suitability of extension material is a message delivered when learning activities are based on the needs of fish processing. Based on the results of the study that the suitability of extension materials delivered was classified as very high 85.3 percent (Table 2). This means that most fish processors stated that the material delivered was very suitable (Table 4). It is like the material problem of raw materials, the problem of production facilities, the way to produce and the way of packaging and how to promote.

According to Mardikanto (1985) counseling material can contain problem solving that is being and will be faced, containing instructions and recommendations that must be carried out and material that is instrumental in that it needs to be considered and has long-term benefits.

Table 4: Distribution of ready-to-eat fish processing based on the suitability of extension materials

No	Kemampuan teknis	Upsuitable		Suitable	
		n	%	n	%
1	Selection of raw materials	74	98.7	1	1.3
2	Handling	31	41.3	44	58.7
3	Processing	74	98.7	1	1.3
4	Use of additional ingredients Packaging	27	36	48	64
5	Storage	64	85.3	11	14.7
6	Licensing	75	100	0	0
7	Handling fish waste	64	85.3	11	14.7
8		75	100	0	0

Note: n=75

The accuracy of the extension method is a method used by extension workers in giving messages to fish processors in the right way, so that respondents understand the extension methods used by extension workers. The accuracy of the methods submitted by extension workers at the research location was based on the answers of most fish processors with a high category of 76.0 percent

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

(Table 2). This means that the method used by extension workers is assessed by most fish processors as appropriate.

The extension method used by extension officers from the Pringsewu District Fisheries Service is that there are seven methods. The method is using leaflet leaflets, poster leaflets, brochure leaflets, lectures, demonstrations (demonstrations / practices) and group discussions and field visits.

Based on the data that the majority of ready-to-eat fish processors reveal all the methods that have been submitted are the right things (Table 5). However, most fish processors prefer demonstration (practice) methods, discussions and lectures and field visits used by extension workers in extension activities. The methods used by extension workers, such as field visit methods, group discussions and demonstrations (demonstrations / practices) and lectures are better understood by most fish processors. The accuracy of extension methods can be seen in Table 5. Distribution of ready-to-eat fish processing based on the accuracy of extension methods.

According to Sangadji et al. (2011) in his research that the extension process influences the capacity of the community itself. This can be seen from the high community assessment of the media and extension methods used by extension workers. This means that the community is satisfied with the extension techniques carried out by extension agents. Likewise according to Tahitu (2015) in his research that the accuracy of the extension method was able to help farmers understand the material provided by extension agents.

Table 5: Distribution of ready-to-eat fish processing based on the accuracy of extension methods

No	Accuracy of extension methods	Not exactly		Right	
		n	%	n	%
1	Leaflet leaflets	27	36	48	64
2	Poster flyers	21	28	54	72
3	Brochure leaflets	21	28	54	72
4	Lecture	2	2.7	73	97.3
5	Demonstration (demonstration / practice)	0	0	75	100
6	Group discussion	0	0	75	100
7	Field visit	1	1.3	74	98.7

Note: n=75

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

External Support

External support is a driving factor that influences the capacity of fast-food fish processing micro-businesses for business sustainability. External support consisting of raw material support, production facilities support, market support and social environment support and government support is relatively high, only low capital support. The details of external support can be seen in Table 6. Distribution of respondents based on external support.

Raw material support is the availability of fish resources that are used as prepared food. Raw material support is relatively high at 93.3 percent. This is because most ready-to-eat fish processors feel the ease of obtaining raw materials. The price of raw materials is also assessed according to the purchasing power of fish processors. Likewise the quality of fish sold or obtained by fish processors with good quality. This is also because the middlemen and fishermen or fish farmers support the availability of raw materials in Pringsewu Regency.

Support of production facilities is the availability of resources in the form of production equipment and supporting materials used for fish processing. Support for relatively high production facilities is 89.3 percent. This is seen from the ease and affordability and the quality of production facilities purchased by fish processors.

Market support is a price and market information suitability as well as a place of sale. Based on the results of the study that price suitability related to the sale price of processed products and ease of information on selling prices and the ease of place where fish processed products were sold were 69.3 percent. One of the causes is that the selling price of ready-to-eat fish products always benefits micro-scale fish processors.

Capital support is the existence of financial assistance obtained by fish processors. Based on data that capital support is relatively low. This is low because fish processing is not easy to get capital from banks or other financial institutions. The process of disbursement from banks is considered not fast, and the high interest is given. However, based on research results, some fish processors do not want to get assistance or capital loans in banks, because they are considered risky. Almost most fish processors reveal that borrowing capital in banking is a way to get risky capital. Based on these perceptions it is certainly different from the reality, that the People's Business Credit (KUR) program is actually a program that is prioritized in supporting the policy of granting credit or financing to the micro, small and medium scale business sectors.

Social support is the availability of local residents into labor and citizens who support morally. As for the results of the study that the availability of local residents became labor and the ease of obtaining labor and the existence of moral support such as the objection of citizens to the existence of fish processing business classified as high 64.0 percent.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Table 6: Distribution of ready-to-eat fish processors based on external support

External support		Person	%
Raw material support			
Low	(11-15)	1	1.3
High	(16-20)	74	98.7
Support of production facilities			
Low	(16-22)	6	8
High	(23-29)	69	92
Market support			
Low	(11-15)	23	30.7
High	(16-20)	52	69.3
Capital support			
Low	(5-8)	75	100
Social environment support			
Low	(4-5)	5	6.7
High	(6-7)	70	93.3
Government support			
Low	(5-7)	16	21.3
High	(8-10)	59	78.7

Note: n=75

Government support is the existence of a business assistance provided to fish processors to support the operation of fish processing businesses. Government support is measured by the ease of fish processing in obtaining assistance and the usefulness of the business assistance provided. Such assistance can be in the form of production tools that can be utilized and the level of ease in obtaining the People's Business Credit program. Government support is high at 70.7 percent. The government's support is relatively high due to the People's Business Credit program which is considered by most fish processors to be useful and easy to obtain. Likewise, the business assistance provided by the Pringsewu District Fisheries Office, such as the production equipment of most fish processors, is very useful.

The Level of Capacity of Fish Processing Ready for Micro Enterprises

Fish processing capacity is the ability of processors in conducting fish and managerial processing technical activities, such as accessing capital and accessing the market and the ability to partner. Based on the results of the study that the level of fish processing capacity which is seen from the technical ability and managerial ability is relatively low (Table 7).

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Technical Capability

The technical ability of fish processing is measured by the actions taken in producing processed fish. The production activity process is in the form of raw material selection, handling, processing, use of additional materials, packaging, storage and licensing (certification and certificates and marketing permits) and handling of fish waste.

The data shows that the technical ability of respondents is low, with the majority being in the low category of 90.7 percent. The weakest technical capabilities are in the process of processing, packaging and licensing and handling of waste.

The processing is weak because most fish processors when grinding meat still use semi-stainless tools. Likewise when printing meat, most processors still use manual methods. Regarding licensing, only a small number of fish processors that have a business licensing certificate are required by the Government of the Republic of Indonesia.

According to Wijaya et al. 2003 that certification acts as a prerequisite for increasing the selling power of processed fish products. One example of certification that plays a role in increasing selling power is Hazard Analysis Critical Control Points (HACCP).

Table 7: Level of Capacity of Ready-to-Process Fish Processing Micro-Enterprises

No	Fish processing capacity		Person	%
1	Technical ability			
	Low	(28-39)	68	90.7
	High	(40-51)	7	9.3
2	Managerial ability			
	Low	(23-32)	71	94.7
	High	(33-42)	4	5.3

Note: n=75

The ability to handle waste is very low because most fish processors do not reuse the remnants or parts of unused fish, such as fish heads, innards and bones. Most fish processors dispose of processed residues in waterways in residential areas. Fish processors do not utilize fish waste into a product that has a selling value.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Table 8: Distribution of ready-to-eat fish processors based on technical capabilities

No	Technical ability	Low		High	
		n	%	n	%
1	Selection of raw materials	74	98.7	1	1.3
2	Handling	31	41.3	44	58.7
3	Processing	74	98.7	1	1.3
4	Use of additional ingredients Packaging	27	36	48	64
5	Storage	64	85.3	11	14.7
6	Licensing	75	100	0	0
7	Handling fish waste	64	85.3	11	14.7
8		75	100	0	0

Note: n=75

According to Suryaningrum (2008) utilization of fish waste can be a valuable product, such as head and stomach contents can be fermented into fish sauce, and fish waste in the form of bones and fish skin can be processed into gelatin and collagen. The high technical capability is the use of additional materials and handling of raw materials (Table 8).

The use of additives is high because most fish processors always use doses and always pay attention to expiration. While the handling of raw materials is high because most of the processors when cutting and splitting fish there are no thorns left in fish meat, and most respondents wash fish in the condition of running water.

Managerial Ability

The managerial ability of fish processors is similar to the low technical ability, namely the majority are in the low category of 85.3 percent. This managerial ability is measured by the ability of fish processors to access capital and markets and the ability to partner (Table 9). The lowest managerial ability is in accessing banking capital. The reason is that most of the respondents were unable to meet the requirements of banking institutions which were considered very difficult.

The ability of fish processors to access markets is low, because most fish processors only make one type of product. If there is a change in market trends are not able to take advantage of these market opportunities.

The ability of fish processors to access the market generally does not carry out promotional strategies. One promotional strategy that is not carried out by fish processors is that it does not provide discounts to consumers. When viewed based on the promotion strategy, of course, price

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

discounts are very important and can encourage consumers to buy products sold by fish processors.

Likewise, promotional strategies are rarely carried out, which is part of the market strategy. Nevertheless there are some fish processors that have been found to have been promoting with online media, such as Facebook and WhatsApp and Instagram. According to Kotler (2007) that the product produced must pay attention to product diversity, quality, design, characteristics, brand name, packaging, size, service, warranty, and rewards in a marketing mix.

The ability of fast-food fish processing micro-enterprises in Pringsewu District to be partnered is relatively low (Table 9). Partnering ability is measured by the number of business networks owned by fish processors, in relation to the number of parties working with fish processors in marketing products and providing raw materials and production equipment. According to Asiati et al. (2016) that partnering can provide benefits in access to production facilities and infrastructure, access to capital, network expansion and marketing certainty, increased institutional capacity, and increased human resource capacity.

Table 9: Distribution of fast food fish processing based on managerial ability

No	Managerial ability	Low		High	
		n	%	n	%
1	Ability to access capital	60	80	15	20
2	Ability to access the market	46	61.3	29	38.7
3	Partnering ability	69	92	6	8

Note: n=75

Factors Affecting the Level of Capacity of Fish Processing Ready for Micro Business in Pringsewu Regency

Factors thought to influence the capacity of fast-food fish processing micro-businesses were analyzed using the PLS model with the SmartPLS version 3.0 software (Figure 1). Factors that indicate the effect on the level of fish processing capacity are individual support, extension support and external support. The variables that have the most influence on the level of capacity are individual characteristics and extension support and external support.

Individual characteristics include age, non-formal education and formal education and business experience. As for the real and direct effect on the level of capacity of fast-food fish processing micro-enterprises, namely non-formal education and formal education. Two indicators are issued because they have no effect on age and business experience. This is because the factor loading values of both indicators are below 0.5. Non-formal education and formal education have a

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

factor loading value above 0.5 which is 0.870 and 0.771. Then both indicators can reflect individual characteristics.

In this micro-business, ready-to-eat fish processing business, age does not affect fish processing capacity. In contrast to what was revealed by Subagio (2008) that age has a very real effect on the capacity of vegetable farmers in carrying out farming activities. The cause of age does not affect the capacity of the fish processor, namely the fish processor, both the early age of adulthood, the middle of maturity, very mature and the early elderly, have the same technical and managerial abilities in running their business. The average fish processing age is 38 years which is the middle of maturity.

Based on age categories, fish processors should have a high capacity in processing ready-to-eat fish. Seeing the age of fish processing which is mostly considered not old or elderly. Meanwhile, according to Wahjono (2010), productivity has declined because of the aging of a person. Often the skills of an individual are assumed to be primarily speed, dexterity, strength and coordination decreasing over time, and protracted work boredom and lack of intellectual stimulation resulting in reduced productivity.

Business experience also does not affect the capacity of fast-food fish processing micro-enterprises. The average fish processor has run a fish processing business for seven years. Business experience does not affect the capacity of ready-to-eat fish processors because both those who have carried out the processing business for one year to fifteen years are mostly classified as low technical and managerial capabilities. This is evident from managerial abilities such as accessing capital, accessing the market and still weak partnership skills. Likewise technical capabilities such as processing, packaging and licensing, as well as waste handling. In contrast to what was revealed by Tahitu (2015) in his research that the length of a business has a significant positive effect on a person's capacity to conduct business activities. Business experience is a good predictor of decision making, business success and entrepreneurial behavior.

Non-formal education and formal education have a positive effect on the level of capacity of micro-processed fish processing processors. This shows that the higher the level of non-formal education and formal education, the higher the level of capacity of fast-food fish processing micro-businesses. The participation of respondents in fish processing training activities will provide respondents with knowledge about the proper fish processing methods and processes. Likewise, extension activities are important to improve technical and managerial skills which are part of the fish processing capacity. Formal education that has a positive effect on the level of capacity of fast-food fish processing micro-businesses certainly shows the importance of formal education.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

Formal education will certainly affect the capacity of fish processors such as managerial abilities, namely in accessing capital and markets and the ability to partner. This is in line with the results of research conducted by Subagio (2008) that non-formal education and formal education have a very real effect on the capacity of vegetable farmers in carrying out farming activities. Likewise according to Nurfitriana (2016) that the higher non-formal education and formal education, the higher the level of one's capacity.

Extension support is a factor that comes from outside the fish processor that affects the capacity of ready-to-eat fish processing micro-enterprises for business sustainability. Based on the data that the extension support consisting of the intensity of counseling and the suitability of the extension material as well as the accuracy of the extension method was high. However, of the three indicators that have a positive effect with factor loading values above 0.5 are extension intensity and extension methods.

The intensity of extension is an extension activity organized by the Fisheries Service of Pringsewu Regency which aims to help micro-entrepreneurs become more independent. This certainly affects the level of fish processing capacity as a micro business actor. The extension methods provided by the Pringsewu District Fisheries Office such as field visits and demonstrations (demonstrations / practices) are very important to increase the capacity of fish processing in Pringsewu District. In contrast to the results of research conducted by Leasa (2017) that extension support does not affect the level of enbal processing capacity.

External support includes raw material support, production facilities support, market support, capital support and social support and government support. Of the six indicators that have a positive effect, namely government support with a factor loading value above 0.5 which is 0.905. The social environment support is not eliminated so as not to change the model. While other indicators are omitted because the factor loading indicator is below 0.5 unless the social support indicator is not removed to keep the model from changing. Measurement model (outer model) is presented in Figure 1.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

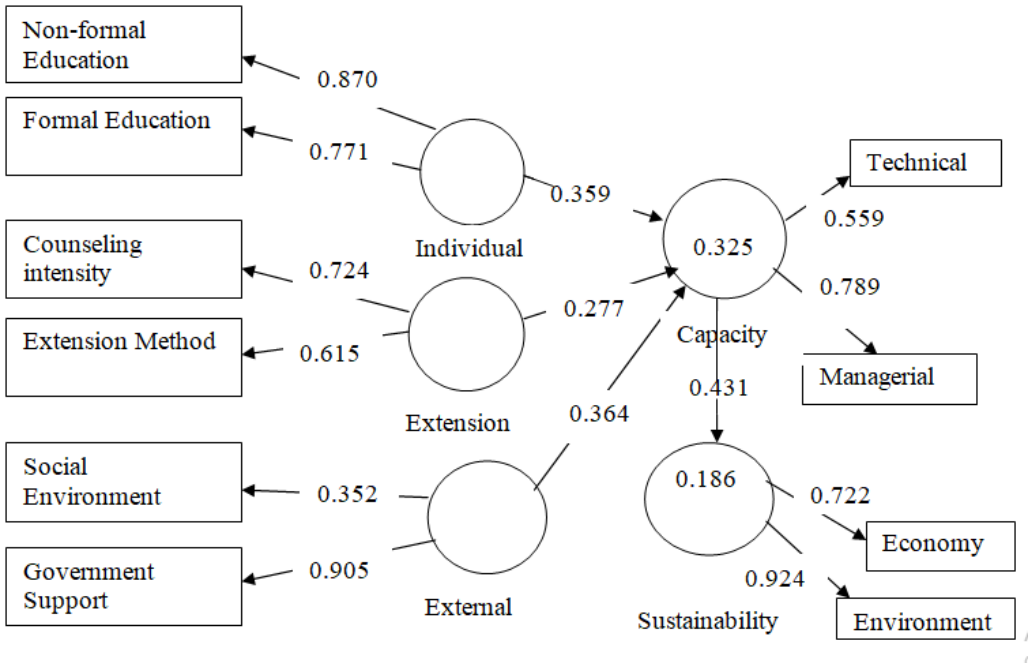

Figure 1: Measurement model (outer model).

The Influence of Prepared Fish Processing Capacity Micro Business towards Fish Processing Business Sustainability

The capacity of fish processors that affect business sustainability are technical and managerial capabilities (Figure 1). Fish processing capacity has a positive and significant impact on business sustainability. This is because technical and managerial abilities have a factor loading value above 0.5. Of the three aspects of business sustainability, those that have a real and direct influence on business sustainability are economic and environmental aspects. Both aspects have a factor loading value above 0.5 which is 0.722 and 0.924 (Figure 1). The two indicators can reflect the level of sustainability of the fish processing business in Pringsewu Regency. While the indicator of business sustainability on the social aspect is issued because the factor loading value is below 0.5 (Figure 1).

Fish processing capacity has proven to have an effect on business sustainability. The capacity in the right technical capabilities will bring benefits to fish processors in the economic aspects. This can be seen in the ability of fish processors in the use of additional ingredients. The use of additional ingredients with the right dose will produce a good product with a consistent taste. Likewise the ability of fish processing in product packaging. Product packaging that uses a thick type of plastic with a combination of aluminum foil material, then makes the appearance of the product become quality. The small number of fish processors who have done this experience the

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

ease of selling products in the souvenir and supermarket market. That way the amount of productivity and profits of the fish processing business has increased. Likewise, managerial abilities that have a significant effect on business sustainability on economic aspects.

Managerial skills such as accessing capital certainly have a significant effect on the sustainability of the business on the economic aspect. Capital is the most important thing in building and running and developing a fish processing business. It was also expressed by Delima (2016) in his research that business capital can be used to develop the business that has been carried out to make the business become more developed in scale compared to the previous time. According to Syufri (2005) in his research that fisheries production activities require a lot of capital to meet the needs of production facilities. Therefore capital is very influential on business sustainability.

Business sustainability in environmental aspects is significantly affected by the technical capabilities of fish processing. This can be seen from the ability of fish processors in handling waste. Fish processors utilize waste such as fish heads and gills into fish feed. Likewise, fish bones are processed into fish sticks. As for the handling of fish waste in other ways the head and bones and gills are dried first. After being dried, burning is done. Therefore there is no waste that causes unpleasant odors and sewerage that is full of fish scales and maggots. Therefore the ability of fish processors in handling waste will greatly affect the sustainability of the business on the environmental aspects.

The level of capacity of fish processors as micro entrepreneurs in Pringsewu Regency has a positive and significant impact on business sustainability. This is in line with Leasa's (2017) research which shows that the capacity of enbal processing business actors positively and directly has a significant effect on the business sustainability of business actors. The higher the capacity of enbal processing business actors, the higher the business sustainability of the business actors.

CONCLUSION

1. The level of capacity of fast-food fish processing micro-enterprises in Pringsewu District is in the low category, because most of the majority of fish processors have limitations in technical and managerial capabilities. Very low technical capabilities in terms of waste handling, processing, packaging and licensing processes. The managerial ability is very low, namely the ability to access banking capital.
2. The level of capacity of fast-food fish processing micro-enterprises in Pringsewu Regency is influenced by individual characteristics, extension support, and external support. Individual characteristics that influence the level of non-formal education and formal education. Whereas

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

from extension support in the form of extension intensity and extension methods as well as external support in the form of support from the government.

3. Fish processing capacity has a significant positive effect on the sustainability of its business. This means that the higher the technical and managerial capabilities possessed, the sustainability of its business in the economic and environmental aspects will increase.

REFERENCES

1. Afrianto E, liviawaty E. 1989. Pengawetan dan Pengolahan Ikan. Penerbit. Kanisius. Yogyakarta.
2. Asiati D, Nawawi. 2016. Kemitraan di Sektor Perikanan Tangkap: Strategi untuk Kelangsungan Usaha dan Pekerjaan. *(Partnership in The Fishery Sector: Strategies for Business and Employment Sustainability). Jurnal Kependudukan Indonesia.*
3. Asta DU. 2015. Kapasitas Petani Kakao Bekas Penambang Batu Bara di Kota Sawahlunto Sumatera Barat. Tesis. IPB.
4. BPS. 2015. Data Produksi Perikanan di Indonesia pada Tahun 2014.
5. BPS. 2015. Data Produksi Perikanan di Provinsi Lampung pada Tahun 2014.
6. Delima ID. 2016. Kompetensi Pelaku Usaha Mikro Makanan Ringan "Gipang" dan "Ceprek Melinjo" dalam Penjaminan Mutu Produk. Tesis. IPB.
7. Devi S. 2016. Kapasitas Kader dalam Penyuluhan Keluarga Berencana di Kota Palembang. Tesis. IPB.
8. Fatchiya A. 2010. Pola Pengembangan Kapasitas Pembudidaya Ikan Kolam Air Tawar di Provinsi Jawa Barat. Disertasi. IPB.
9. Heruwati SE. 2002. Pengolahan Ikan secara Tradisional: Prospek dan Peluang Pengembangan. Jakarta. *Jurnal Litbang Pertanian.*
10. Kemenperin. 2013. Kementerian Perindustrian Republik Indonesia tentang Data Industri.
11. Kemenperin. 2015. Kementerian Perindustrian Republik Indonesia tentang Data Industri.
12. Kotler P. 1992. Marketing. Jakarta (ID): Erlangga.
13. Leasa BW. 2017. Model Pengembangan Kapasitas Pengolah Enbal dalam Mendukung Keberlanjutan Usaha di Kabupaten Maluku Tenggara. Tesis. IPB.
14. Mardikanto T. 1985. Pelaksanaan Penyuluhan Pertanian. Surabaya. Usaha Nasional.
15. Nikijuluw. 2002. Rezim Pengelolaan Sumberdaya Perikanan. Jakarta. PT Pustaka Cisendo.
16. Nurfitriana N. 2016. Perilaku Kewirausahaan Pelaku Usaha Pempek Skala Industri Mikro dan Kecil di Kota Palembang. Tesis. IPB.
17. Peraturan Pemerintah Republik Indonesia Nomor 57 Tahun 2015 tentang Sistem Jaminan Mutu dan Keamanan Hasil Perikanan serta Peningkatan Nilai Tambah Produk Hasil Perikanan.

ISSN: 2455-8834

Volume:03, Issue:08 "August 2018"

18. Permenkp. 2016. Peraturan Menteri Kelautan dan Perikanan Republik Indonesia Nomor 37/Permen-Kp/2016 tentang Skala Usaha Pengolahan Ikan.
19. Permenkp. 2016. Peraturan Menteri Kelautan dan Perikanan Republik Indonesia Nomor 72/PERMEN-KP/2016 tentang Persyaratan dan Tata Cara Penerbitan Sertifikat Kelayakan Pengolahan.
20. Rimbawati DEM. 2017. Pemberdayaan Masyarakat melalui Pengembangan Kelompok Tani Hutan *Agroforestry* di Kabupaten Bandung. Tesis. IPB. Bogor.
21. Sangadji MN, Sumardjo, Asngari PS, Soenarmo. 2011. Strategi Penyuluhan di Kawasan Konservasi (Kasus Taman Nasional Kepulauan Togean). Jurnal Penyuluhan. Vol 7.
22. Subagio H. 2008. Peran Kapasitas Petani dalam Mewujudkan Keberhasilan Usaha tani. Disertasi. IPB.
23. Sugiyono. 2007. Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung (ID): Alfabeta.
24. Suryaningrum DT. 2008. Ikan Patin: Peluang Ekspor, Penanganan Pascapanen, dan Diversifikasi Produk Olahannya. *Jurnal Balai Besar Riset Pengolahan Produk dan Bioteknologi Kelautan dan Perikanan.*
25. Syufri A. 2005. Pemberdayaan Nelayan Tradisional Kasus Penyuluhan di Sepanjang Pantai Kota Padang. Tesis. IPB.
26. Tahitu ML. 2015. Pengembangan kapasitas pengelola sagu dalam peningkatan pemanfaatan sagu di maluku tengah provinsi maluku. Disertasi. IPB.
27. Utami H. N. 2007. Keberdayaan, Kemajuan dan Keberlanjutan Usaha Pengrajin: Kasus Kabupaten Sidoarjo dan Kabupaten Magetan Provinsi Jawa Timur. Disertasi. IPB.
28. Wahjono SM. 2010. Perilaku Organisasi. Graha Imu. Yogyakarta.
29. Wijaya HC, Kristanto A, Indriastanti F, YK Ariebowo. 2009. Standarisasi dan Legislasi Pangan. Buku Materi Pokok Pang4413/2sks/Modul 1-6. Penerbit: Universitas Terbuka.

