DYNAMICS OF FISH PROCESSOR GROUP IN SUPPORTING BUSINESS SUSTAINABILITY

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ABSTRACT

Fish processor group was formed to facilitate the achievement of business sustainability. However, one of the requirements to achieve sustainability i.e. groups must have a high level of group dynamics. This research aims to identify the level of business sustainability of fish processor and analyze internal factors, external factors and group dynamics that affect the sustainability. The research approach is quantitative data with survey methods and uses questionnaires for collecting the data. The sample of this research was 78 fish processor from three regencies in Cirebon. Data collected in April 2018. The results showed that the business sustainability of the fish processor in Cirebon regency are in the high category for economic aspects, while environmental and social aspects are in the low category. It indicates that sustainability is focused on increasing productivity. The business sustainability is affected significantly and positively by the internal, external and group dynamics. Internal factors that affect are income, cosmopolitan and duration of membership. External factors that affect are the availability of information, the role of extension workers and the availability of raw materials. Elements of group dynamics that affect are structure, coaching and development and group effectiveness. Business sustainability is reflected by economic aspects.

Keywords: Business sustainability, fish processor, group dynamics

INTRODUCTION

Fish processing is done to maintain the quality of fish in a long time, to add value to fish and to encourage customers to eat fish. This becomes important because fish is a great source of protein and with high processing fish can be an alternative source of food. Fish processing also become the best solution for providing fish food especially for communities that are far from the beach or the countryside (Rizky 2017).

Most of the fish processing industry in Indonesia are in micro scale business. Data from Directorate General PDSPKP (2014) shows that there were 25,602 micro scale fish processing business and 37,464 small scale fish processing business. Based on that data, it was concluded that the amount of fish processors in micro and small scale business is very high although they have experienced various kinds of constrains, such as the stock of raw materials which are less secured and the difficulty to find the market's goal. (Deswati and Hikmah, 2016).

These problems can be solved if the fish processing was joined in the group. For the difficulty of obtaining raw materials, this group facilitates fish processors by providing information about the availability of raw materials in other areas. Marketing constraints also are also easily solved in groups by mutual aid in marketing products businesses of each member. As Hermawan et al. (2017) explained that the benefits of the group are acquiring the help of capital, means of production, access to business information (the demand for fish, the selling price, information technology), handling and problem-solving efforts, helps for business management (labor), ease of marketing and the growing number of partners.

The Government of Indonesia through the Ministerial Decree of Minister of Marine and Fisheries aware of it so they form fish processor group as stated in the decision of the Minister of Marine and Fisheries of the Republic of Indonesia Number Kep.14/MEN/2012. The purpose of the establishment of a group is to improve the standard of living by the principle in common interests, natural resources, social economy, friendliness, mutual trust, and the harmony of relationship so that each group member can feel to have and get the benefits as much as possible from the group.

The group dynamics will facilitate the achievement of the goals of the group. A dynamic group is seen from the elements of group dynamics. According to Cartwright and Zander (1968), elements of group dynamics are the purpose of the group, its structure, functions, tasks, group coaching and development groups, group cohesiveness, the atmosphere, the pressure groups on groups, the effectiveness and hidden agenda. The nine elements interrelate with each other and always follow the group circumstances.

Research results related to group dynamics indicate that group dynamics can influence the business sustainability (Mirza et al. 2017; Rimbawati et al. 2018). Therefore, if the group dynamics is high, then business sustainability will become more accessible. Business sustainability is seen as a long-term prerequisite for profitability in the business. Business sustainability is measured based on the ability to fulfill the current needs without incurring losses to the needs in the future. Business sustainability is also important in order to maintain productivity to meet the needs of the community and at the same time to keep paying attention to other aspects such as environmental, social, institutional (Fatchiya 2010; Ibrahim et al. 2013).

Based on the things mentioned above, it is necessary to review business sustainability through group dynamics approaches for fish processor in the Cirebon Regency when, in the current conditions, many group of fish processor in Cirebon Regency are inactive. According to Marine and Fisheries Agency data in Cirebon district in 2016, there are 194 fish processor groups in Cirebon district but only 77 groups active in running the fish processing. The numbers indicate that the groups inactive are more than the groups active when there will be many benefits for them if they join. Thus, the purpose of this research is: (1) to identify the business sustainability of fish processor in Cirebon Regency, and (2) to analyze the influence of external and internal factors of group dynamics towards business sustainability.

METHODOLOGY

This research used a quantitative approach and supported by qualitative analysis. Location of research namely Cirebon regency which is one of the central areas of fish processing in West Java. The research location was determined purposively in three subdistricts which are fish processing location in Gunungjati subdistrict, Suranenggala district, and Jamblang subdistrict in randomly on 12 fish processing groups' place which are active. Data collection was conducted in April 2018. The number of samples was determined following the provisions of Slovin with a tolerance limit of 10 percent of the population of 348 so samples taken were 78 people.

Variables used in this study are independent variables (X_1) intenal factors, (X_2) external factors, (X_3) group dynamics and dependent variables (Y_1) business sustainability. Internal factors are explained into the 8 (eight) sub variables i.e. age $(X_{1.1})$, education $(X_{1.2})$, income $(X_{1.3})$, dependent family $(X_{1.4})$, cosmopolitan $(X_{1.5})$, business experience $(X_{1.6})$, long became a member $(X_{1.7})$ and motivation $(X_{1.8})$. External factors are explained into the 8 (eight) sub variables i.e. availability of information $(X_{2.1})$, the intensity of the extension $(X_{2.2})$, the role of extension workers $(X_{2.3})$, the role of community leaders $(X_{2.4})$, the role of Government $(X_{2.5})$, capital support $(X_{2.6})$, the availability of raw materials $(X_{2.7})$ and marketing support $(X_{2.8})$. Group dynamics is described into the 8 (eight) sub variables i.e. objectives $(X_{3.1})$, structures $(X_{3.2})$, the function of the task $(X_{3.3})$, coaching and development $(X_{3.4})$, cohesiveness $(X_{3.5})$, atmosphere $(X_{3.6})$, pressure $(X_{3.7})$ and the effectiveness of the Group $(X_{3.8})$. Sustainability efforts are described in three (3) sub variables i.e. economy $(Y_{1.1})$, ecological $(Y_{1.2})$ and social $(Y_{1.3})$.

Based on the results of validity and reliability test, the value of r obtained ranged from 0.372 to 0.807. As for the value of cronbachs alpha ranged from 0.879 to 0.509 which was greater than r table (0.361). Thus, the instruments used in the research was valid and reliability. Collected data were tabulated and analyzed using descriptive statistics, test program Statistical Package for the Social Sciences (SPSS) version 24, and inferential statistical analysis with Partial Least Square (PLS) 3. Hypothesis testing in one direction which was done by looking at the level of

significance of the value of the path coefficient shown by a value of the t-statistic must be above 5 percent for alpha 1.64 (Abdillah and Jogiyanto 2015).

RESULTS AND DISCUSSION

The business sustainability of the fish processing business in Cirebon regency

Business sustainability is achieved by people's abilities in working continuously while still paying attention to the natural resources that exist in their environment and human resources in order to face a variety of risks and changes. Business sustainability include: (1) economic aspects; (2) ecological aspects; and (3) social aspects. The description of each of the aspects of sustainability are served at table 1.

Table 1: The percentage of aspects of sustainability

No	Variables	Category	Percentage
1	Economic	Very low (4-7)	10,3
		Low (8-10)	29,5
		High (11-13)	51,2
		Very high (14-16)	9
2	Ecological	Very low (4-7)	28,2
		Low (8-10)	41
		High (11-13)	29,5
		Very high (14-16)	1,3
3	Social	Very low (5-8)	71,8
		Low (9-12)	19,2
		High (13-16)	9
		Very high (17-20)	0

Note: n=78

The economic aspect is a thriving business based on factors of production. Economic aspects in this research is at a high category with 51.2%. This indicates that business sustainability is focused on purely improving the productivity in order to get benefits as much as possible in the present and in the future. It is because the majority of fish processor make fish processing as the only main source of income of the family, therefore it is reasonable for the fish processor to focus more on increasing the productivity to meet the life necessities of the family. In addition, the activities of the outreach also focus on improving productivity. It is measured from a specific training about how to process an efficient fish in order to get maximum results. It is supported

from a statement from Mirza et al. (2017) that extension activities so far have been able to increase production and income of members of a group of women farmers.

The ecological aspect is a business done by giving attention to the elements in maintaining the stability of the natural ecosystems. In this study, environmental aspects are at the low category with 41%. Fish processor have not been too concerned about the environmental impact that will occur in the future. It can be seen from an unpleasant smell around the location of the processed fish which is not be seen as a problem. Unpleasant smell is not reduced because citizens also do not do protest to fish processor. Local people understand it and see it as a risk of living in around the area of fish processor. Piles of garbage processed also piled up because the result is generally processed in garbage dump near the location then burned after a few days. Business waste (blood, bone fish) thrown into the river or irrigation around the place, consequently the irrigations are full of maggots and the rivers are contaminated. The fish processors have not yet understood about the environmental impact of business in the future so they tend to ignore it. This is because of a lack of public awareness regarding environmental impact, so they have low awareness about sustainability in environmental aspects. Ibrahim et al. (2013) stated that the artisans are less trained in environmental impacts so that they have no knowledge of future environmental impacts.

The social aspect is a business done with attention to elements in maintaining human relationships. The social aspect is at a very low category with 71.8%. The social conditions that occurred all this time will continue in the future because social systems on the location of fish processing in the past have been good so there is no need to think of social sustainability. This is because the current interactions between fish processor and the local community has been very good so there will be no problem in the future. Fish processors think that their lives will remain the same in the future as the previous condition is the same as the current situation. The concern between neighbors, apparatus of the village, the perpetrators of other businesses, suppliers of raw materials and the buyer will always be good. If anyone is sick, they will visit each other and give a hand. There's even an interesting situation in Jamblang. When there are people who want to build a house, all other citizens, especially the head of the families are giving their all in working together to help building the house, including leaving their job processing fish. This is the fact that social condition of the community around the area will be very good in the future, so there are no problems in the sustainability of the social aspects to worry about. Fitriansah (2012) suggested that the family system applied resulting in a high community participation in terms of mutual aid.

The influence of internal factors, external factors and group dynamics towards business sustainability

Evaluation model of measurement and structural analysis of the results of the Partial Least Square (PLS) suggests that the factors affecting the business sustainability of the fish processor in Cirebon regency consists of internal factors, external and group dynamics. Harijati et al. (2007) stated that sustainability can be achieved through improvement to internal, external factors, group dynamics and the competence of agribusiness. Equation model structural factors that affect group dynamics of fish processing is: $Y1 = 0.31X_1 + 0.19X_2 + 0.28X_3 + 0.60$. Model measurements (outer model) is presented in Figure 1. While the structural models (inner models) are presented in table 2.
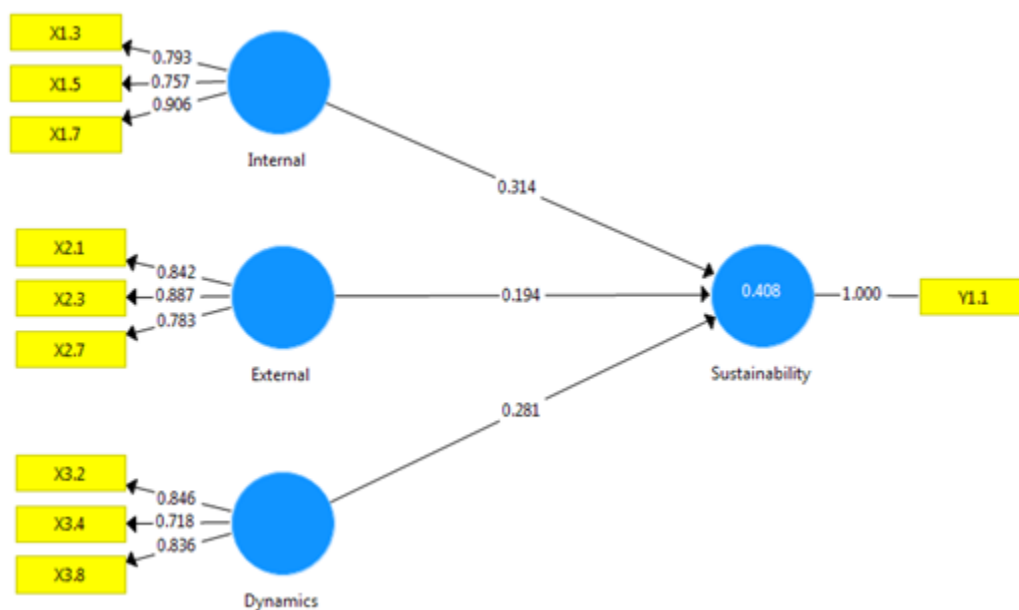

Fig 1: Model measurements (outer model)

The value of R^2 is 0.408 shows that 40.8% group dynamics processing fish affected by the factors examined in the study while 59.2% are affected by other factors outside of this research. Based on the value of R^2 then model the resulting categories include moderate. This refers to Sarwono and Narimawati (2015) that the value R^2 endogenous latent variables are divided into four i.e. 0.19 (weak); 0.33 (moderate); 0.67 (substantial) and > 0.7 (strong).

Table 2: value of the significance of the latent variables business sustainability

No	Matrix influence of latent variables	Path coefficient	T- Count	Significance
1	Internal factor => Business sustainability	0.314	3.324	Significance
2	External factor => Business sustainability	0.194	1.957	Significance
3	Group dynamics => Business sustainability	0.281	2.695	Significance

Note: value t-count > value t-table (1.64) = significance, $\alpha = 5$ percent

In this study, the results of the factor loading shows only one of the indicators that reflect business sustainability at economic indicators while the other two factors must be removed from the model due to the value of the factor loading which is under 0.7, therefore it is not able to reflect on the business sustainability. If the value of the coefficient under of 0.7, then it must be removed from the indicator models and done one by one repeatedly until the last model has a value coefficient above 0.7 (Sarwono and Narimawati 2015).

Sustainability that reflected by economic aspects is caused by fish processing business which is more focused on the aspect of increasing productivity. The objectives to be achieved only on increasing profits so that activities are more focused on increasing productivity as a way to cultivate good fish, how to obtain raw materials, and product marketing. Group activities rarely discuss aspects of the environment or social, it is due to the environmental aspects of fish processor is still low such as the ignorance of handling the waste while the social aspect is always consistent since then until now.

Internal factors of member of fish processor group, in positive and direct way, affect significantly to business sustainability on the economic aspects. Internal factors reflected by income, cosmopolitan and duration of membership. The greater the income earned, the more often the members go out of town and the longer joined in a group, the higher the business sustainability. These result is supported by the findings of Leasa (2017), internal processor characteristics of enbal in a positive and direct way, affect significantly against the sustainability of the business enbal, the higher internal characteristics of the enbal processor, the higher enbal business sustainability.

The revenue of fish processor in the Cirebon regency are relatively big, that means enough to supply the needs of the family. Fish processors' income per month ranged from Rp 1 million to Rp 3 million, the size of the income is adjusted with the scale of the business. Their income increase when compared to the initial condition to cultivate fish. Fish processor also believes, revenue will continue to improve where activities in groups or outreach was more focused on

aspects of production such as the procedures for processing fish, choosing raw materials, and products innovation from the preferred consumers.

Group members often travel outside of the city or to the city centre in order to sell processed products (marketing). In the process, when the processors sell processed products to consumers then there will be interaction. The interactions that happen is not just about selling but also about the customers' opinions about the product processed so that the processors can continue to do the development in accordance with the wishes of the consumers. If a consumer's wishes can be fulfilled, then the processed product demand will increase.

The longer the member of the group join, the more experienced and confident they are that there are the benefits of joining the group. The processors think that joining the group provides convenience in the production of fish processing since they get abundance of information only from the groups. Information obtained through participation in groups such as consumer needs about processed products.

External factors of fish processor group member in a positive and direct way, affect significantly to business sustainability on the economic aspects. The external factor is reflected by the availability of information, the role of extension workers, and the availability of raw materials. The more information available regarding fish processing business, extension workers who plays a major role, and the availability of raw materials, the more business sustainability increase. According to Ruhimat (2015), there is the influence of external factors such as the level of sustainability of farming against the role of extension workers. The role of extension workers is the first key factors that strongly influence the sustainability of farming agroforestry, in Rancah district.

There are lots of information available about fish processing, so fish processing knowledge increases. Such information is generally retrieved from extension workers but sometimes also obtained using internet media (Whatsapp and Facebook). The information obtained is usually in the form of how to cultivate fish, market needs, and availability of raw materials. Such information is more focused on improving the productivity of fish processing business.

The role of extension workers in fish processor group is very large where the extension workers became the main source of information for the fish processor. Extension workers often come to the group either scheduled or not scheduled. The arrival of extension workers is highly expected by the processors to get information and motivation. However, the information provided by extension workers is still very limited, only about the increased productivity of fish processing business.

The availability of raw materials also affect the business sustainability at economic aspects. The raw material is generally obtained from the chair of the group. The chairman of the group will look for fish according to the needs of the group members then take the fish to be processed in accordance with the type of processed respectively. The availability of raw materials is also strongly influenced the amount of production, if the raw materials are easily retrieved then the productivity be increased.

Group dynamics in a positive and significant effect directly against business sustainability of fish processor. Group dynamics is reflected in the structure of the group, the coaching and development and the effectiveness of the group. The more obvious the interactions that occur in groups, counseling that is often done either scheduled or not, and the ability of the group to achieve the goals expected of members then will increase business sustainability on the economic aspects. This research as Tampubolon et al. (2006) said that there was significant effect between the group dynamics with a success rate of businesses on social and economic aspects.

The interactions that happen (the structure group) more often discussing on how to improve the productivity of businesses such as availability of raw materials and marketing. The fish processor in groups prefer to discuss ways to increase the productivity of businesses compared to other aspects such as concern for the environment. Solidarity within the group also looks to when marketing products where Interstate mutual aid fish processor provide the information needs of the consumers in an area.

Coaching in groups such as the more dominant extension describes how to process an efficient fish. Extension held just once a month so that it could not discuss the other aspects such as environmental concern, in addition, members of the group prefer to discuss the procedures for processing fish compared the handling of wastes according to the processor has not been important too.

The effectiveness of the group also suggests joining the group obtained a range of help to improve the productivity of the business. This is apparent from the join in the group gave ease of obtaining raw materials, get help with equipment and get training/guidance from the Government. The group is very effective in achieving the expected objectives of members thus affecting the business sustainability at economic aspects.

CONCLUSION

1. Business sustainability of fish processor in Cirebon regency are in the high category to economic aspects, while environmental and social aspects in the low category. It indicates that business sustainability focused on increasing productivity. It aims to get benefits as

much as possible in the present and in the future. It is because the majority of fish processor became the main source of income of the family

2. Business sustainability of fish processor is affected significantly and positively by the internal factors, external factors and group dynamics. Internal factors that affect the business sustainability i.e., income, cosmopolitan and long become a member. External factors that affect the business sustainability i.e. the availability of information, the role of extension workers and the availability of raw materials. Element of group dynamics that affect the business sustainability i.e. the structure of the group, coaching and development and the effectiveness of the group. Business sustainability is reflected by economic aspects because the group more focused in terms of increasing the productivity of the business.

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