

STRATEGY FOR THE IMPLEMENTATION OF QUALITY MANAGEMENT POLICY ON TUNA FISHERIES IN SENDANG BIRU MALANG

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Abstract: Concern the government of the importance of the quality of fishery products as set out in KEPMEN-KP/52A/2013 should be followed up through the implementation of quality systems in fisheries activities. The purpose of this research was formulating development strategies and steps for the successful implementation of quality management in tuna fisheries in Sendangbiru. The analysis methods that used in this research is balanced scorecard. The result show, strategic target of implementation quality management policies on tuna fisheries in Sendangbiru are the quality of tuna produced A and B, equipment and facilities complete, distribution vehicles viable, use of technology, and availability counseling and supervision of the activities of tuna handling.

Key Words: balanced scorecard, quality management, Sendangbiru, tuna

INTRODUCTION

Management aspect is very important to be considered because it concerns the quality of tuna fish produced. Maulana et al. (2012) explain that quality aspect is one of the most important aspects in advancing Indonesian fisheries in international market. Olodosu et al. (2011) also states that consistently maintaining product quality will increase consumer trust. One of the ways to maintain the quality of tuna fish is by doing good handling since the fish is caught.

In the last few years, there has been a paradigm shift in the product quality control system. This is based on the fact that a control system that puts too much emphasis on the final product, which cannot guarantee the quality and safety of food. Therefore, a system that can detect early problems that arise during the production process is required (Nurani 2011). Muhandri et al. (2006) adds that precautions are required to ensure product safety and establish control system directed at prevention measures and not dependent on final product testing.

The government's favor towards the importance of fishery product quality has been established in KEPMEN-KP/ 52A/ 2013 on requirements of quality and safety assurance of fishery products in the production, processing and distribution process. The policy should be followed through the implementation of quality system in fisheries activities. In fisheries, especially marine fisheries, the under-



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standing of the quality of fishery products is still low. It is expected that in the future, fishery industry activity is not oriented towards increasing fish resource utilization quantitatively, but it should be more oriented towards quality of the fishery resource (Nurani 2012).

Tuna fish is the main commodity and important economical fish in Sendang Biru, with total catch in 2015 reached 1,931 tons. Tuna fishing is done by using hand line operated by ship sized 6-15 GT. Tuna fishing area is in the Indian Ocean, 180-200 miles from Pondokdadap Fishery Harbor (PPP), which is a fishing base for the ships. The number of fishing ships recorded in 2015 reached 540 units.

There are three types of tuna captured by using hand line in Sendang Biru, namely yellow fin tuna (*Thunnus Albacares*), albacore tuna (*Thunnus Alalunga*), and large eye tuna (*Thunnus Obesus*). The tuna is intended for export market, but the absence of handling standard to be implemented causes some tuna to be grounded and be degraded, so that it cannot meet the standards set by the export company.

The analysis result of the implementation of KEPMEN-KP/ 52A/ 2013 in Sendang Biru shows that there is still gap between the provisions in the KEPMEN with the provision in field, with the level of compliance only reached 65%. Based on the analysis result above, it is necessary to formulate a strategy to improve it. The strategy needs to be translated into a clear and comprehensive set of targets, so that the vision, goal, and strategy can be achieved optimally.

This study aims to formulate strategies and steps of achievement for the successful implementation of tuna quality management in accordance with KEPMEN-KP/ 52A/ 2013. The strategy is formulated by using balanced scorecard. Balanced scorecard is a management system for managing the implementation of strategy that refers to the concept of balance between various perspectives, time period (short and long), and the scope of attention (internal and external).

RESEARCH METHOD

Time and Place of the Research

This research was conducted in July and August 2016. This research took place at Pondokdadap Fishery Harbor (PPP), Sendangbiru Village, Tambakrejo Village, Sumbermanjing Wetan Sub-district, Malang Regency, East Java.

Data Collection

The methods used in the formulation of strategy for policy implementation are descriptive method and case study. Descriptive method is used to collect data about the activity and condition of PPP Pondokdadap. Case study is used to determine the factors influencing strategy formulation.

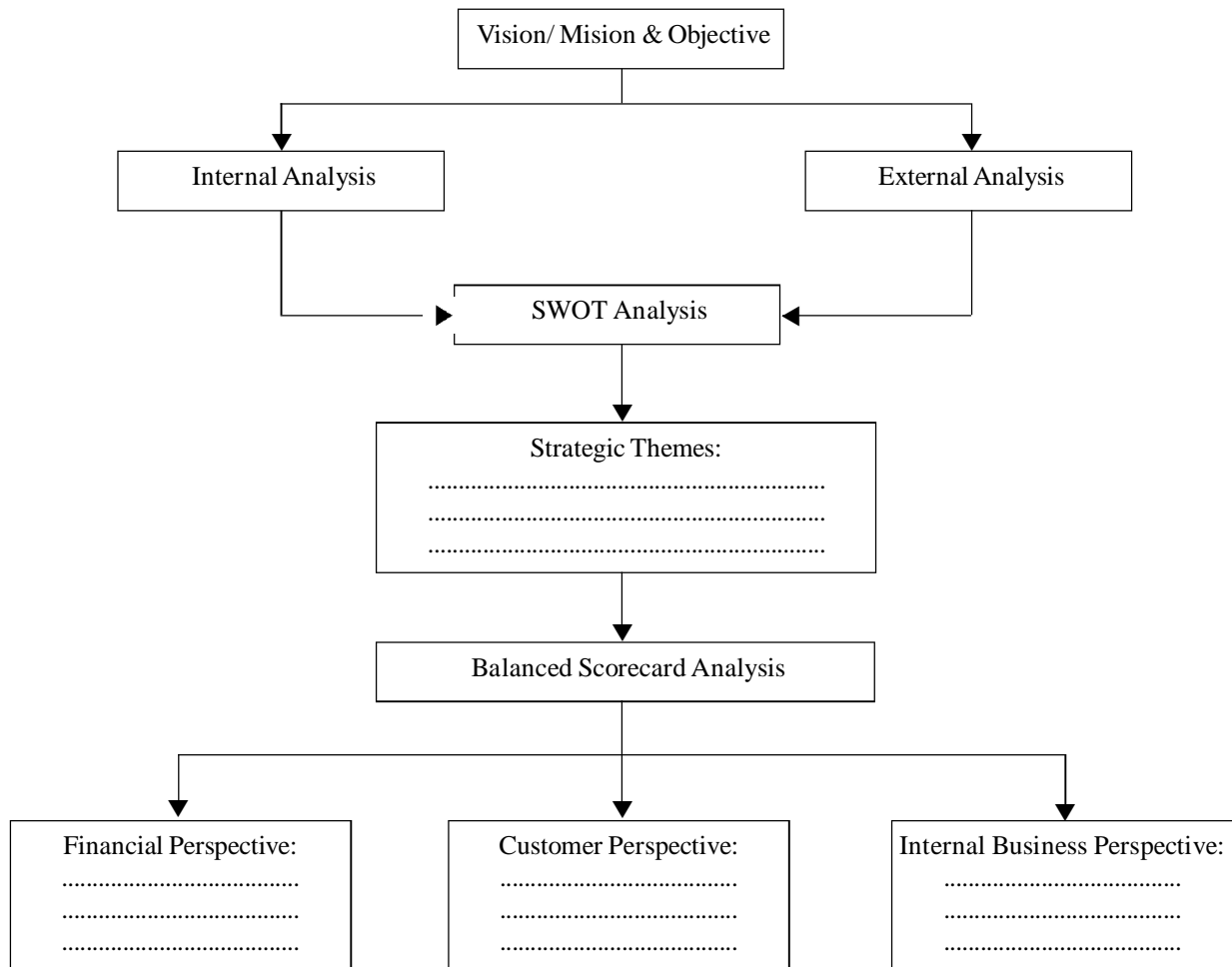
The data collected are primary and secondary data. Primary data is the data of interview with respondents by using questionnaires and direct observation in the field. The respondents are the managers of PPP Pondokdadap, employees in KUD Mina Jaya, fishermen, traders, and tuna entrepreneurs. Determination of respondents was done based on purposive sampling approach. The selected respondents determined by the consideration that they master things related to tuna handling activity. The secondary data was obtained from statistical data in PPP Pondokdadap.

Data Analysis

Formulation of strategy for the implementation of quality management policy on tuna fisheries in Sendang Biru was preceded by SWOT analysis (Nugraheni 2013). SWOT analysis is done to formulate strategy, and then the strategy is implemented through size, target, and initiative in balanced scorecard perspective. The framework of strategy formulation with balanced scorecard approach is described in Figure 1.

The steps in the preparation of balanced scorecard referring to Nurani et al. (2011) are as follows:

1. Formulating strategies based on SWOT analysis
2. Formulating strategies in balanced scorecard perspective



Source: Adopted from Yuwono *et al.* (2007) in Nurani (2014). Reprocessed

Figure 1 Framework of strategy formulation with *balanced scorecard* approach

3. Formulating the target of strategy
4. Identifying success factors or benchmarks
5. Developing benchmarks, identifying causes and impacts, and creating balance.

FINDINGS

Strategy Formulation Based on SWOT Analysis

Based on SWOT analysis, there are 7 strategies for the implementation of quality management policy on tuna fisheries in Sendang Biru, namely:

1. The use of tuna handling technology
2. Increase in the percentage of exportable tuna catches
3. Procurement, repair and maintenance of port facilities, so they can function optimally
4. Routine equipment procurement and maintenance
5. A decent distribution facility is available
6. Providing counseling and training to improve fishermen’s skill and awareness in handling tuna well
7. Supervising tuna handling activity

Formulation of Various Perspectives

Balance Scorecard consists of four perspectives viewed from internal and external system, namely 1) financial perspective, 2) customer perspective, 3) internal business perspective, and 4) learning and growth perspective. In balanced scorecard, those four perspectives become an integrated whole. Those perspectives are also indicators of accomplishment that complement each other and have causal relationships. Those seven strategic objectives for the implementation of quality management policy that have been formulated are then grouped into four perspectives in accordance with balanced scorecard in Table 1.

Table 1 Strategic objectives for the implementation of quality management policy based on balanced scorecard perspective

Perspective	Strategic Objectives
Finance	◦ Increase in the percentage of exportable tuna catches
Customer	◦ Routine equipment procurement and maintenance ◦ Procurement, repair and maintenance of port facilities, so they can function optimally
Internal Business	◦ The use of tuna handling technology, both in fishing boat and port ◦ A decent distribution facility is available
Growth and Learning	◦ Improving the understanding of human resources to generate qualified tuna product ◦ Supervising tuna handling activity

Strategic Goal Formulation

The next stage in preparing balanced scorecard for the implementation of quality management policy in tuna fishery in Sendang Biru is detailing the objectives in each perspective and formulating the strategic goals or indicators of the outcome measure (effect indicator). Figure 2 shows the causal relationship between strategic goals and objectives of four balanced scorecard perspectives. The achievement of the strategic goals for policy implementa-

Table 2 Factors of success of strategic factors for the implementation of quality management policy

Strategic Goal	Factors of Success (Benchmark)
Quality of tuna fish produced by A and B	◦ Decrease in the number of non-exportable tuna fish
Equipment is complete and clean, before and after being used	◦ The use of equipment does not lead to fish quality deterioration
Port facilities function optimally in tuna handling activities	◦ Fish landing place which is clean and free from contamination ◦ Ice factory and cold storage are available ◦ The height of port does not lead to a difficulty in unloading process
Distribution from port to storehouse	◦ Vehicle used to distribute fish from port to storehouse is decent (clean and free from contamination)
Distribution from storehouse to export company	◦ Car with automatic cooler
Technology of fishing boat and port	Hatch with cooler and fish skateboard connecting port and Fish Auction Place (TPI)
Counseling and training to improve fishermen's skill and awareness in handling tuna	◦ Decrease in fish quality deterioration due to fishermen's fault
Supervision in fishery port	◦ Establishment of tuna quality supervisor

tion is spelled out in 8 interrelated strategic goals. All strategic goals of each perspective lead to one goal in financial perspective, namely the quality of

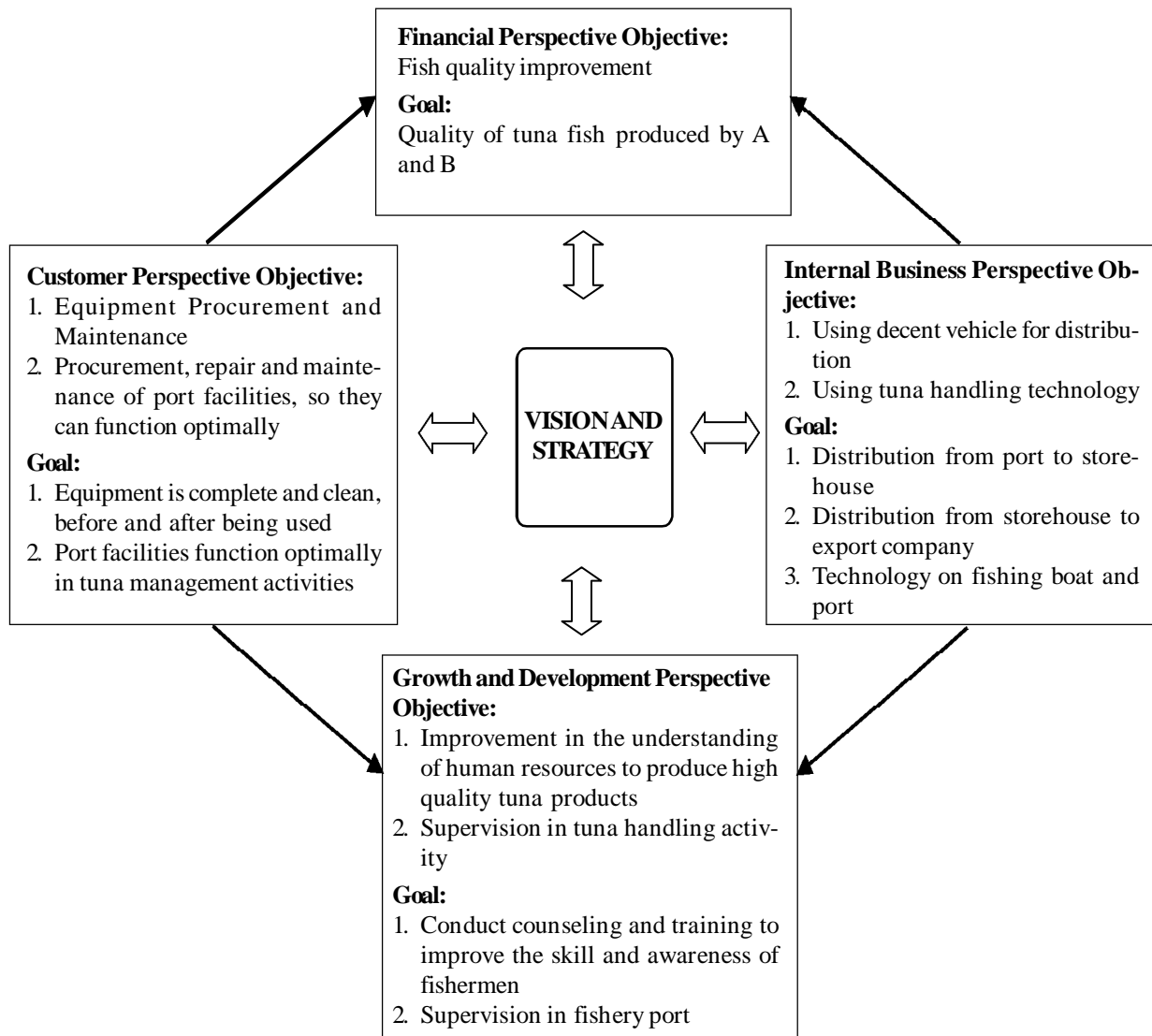


Figure 2 Objective and strategic goal of the implementation of quality management policy

tuna produced by A and B, which means tuna that has export quality.

Identification of Important Factors of Success

Strategic goals formulated then are spelled out in important factors of success or benchmark in Table 2.

Development of Benchmark, Identification of Cause and Effect, and Building a Balance

According to Nurani (2014), the key success factors which are identified above are benchmarks

to see the success rate of the strategic objectives that have been defined. Benchmarks need to be translated into quantitative targets that can be reached within a certain time period. Balanced scorecard formula can be planned for the next few years.

Targets that have been formulated can be achieved through an initiative program or major actions that must be done in a short term. The complete formula of objectives, goals, benchmarks, and initiatives of implementation of quality management policy in Sendang Biru can be seen in Table 3.

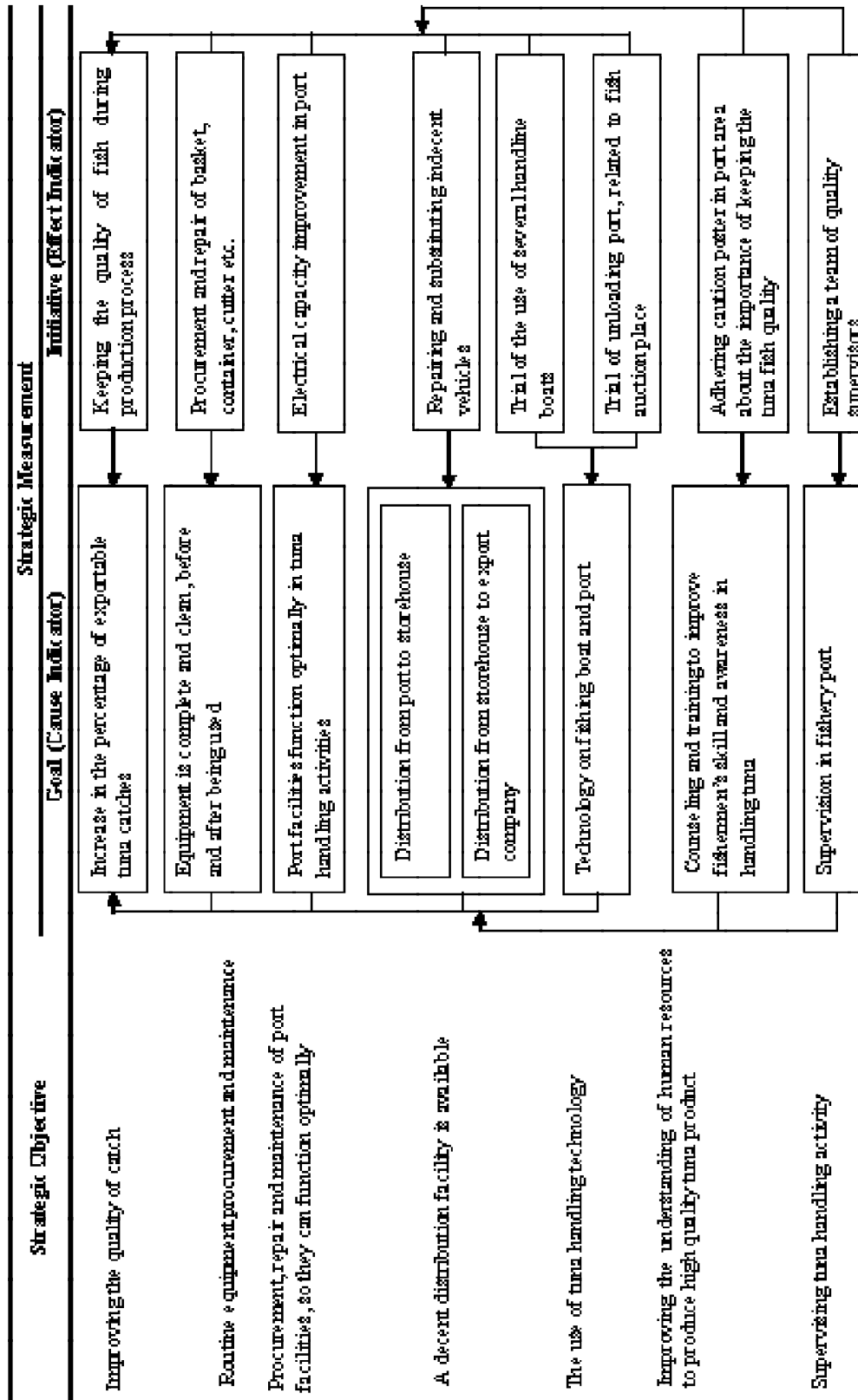
Table 3 Development of Benchmark, Identification of Cause and Effect, and Building a Balance

Objective based on perspective	Goal	Benchmark	Target	Initiative
Finance				
Quality improvement of catch	◦ Quality of tuna fish produced by A and B	◦ Decrease in the percentage of non-exportable tuna fish	◦ The percentage of non-exportable tuna fish should be reduced as minimal as possible (<10%)	◦ Fish quality control in production process
Costumer				
◦ Routine equipment procurement and maintenance ◦ Procurement, repair and maintenance of port facilities, so they can function optimally	◦ Equipment is complete and clean, before and after being used ◦ Port facilities function optimally in tuna management activities	◦ The use of equipment does not lead to fish quality deterioration ◦ Decent facility of fish auction place, ice factory, and cold storage is available. ◦ The height of port does not lead to a difficulty in unloading process	◦ All fishing boats have adequate equipment and are in good condition ◦ Ice factory can produce 5000 ice cubes per day ◦ Cold storage with capacity of 200 tons of fish ◦ Port for unloading tuna is 50 meter in length (proper height)	◦ Procurement and repair of basket, container, cutter etc. ◦ Electrical capacity improvement in port ◦ Building alternative port during low tide
Internal Business				
◦ Using decent vehicle for distribution ◦ Using tuna handling technology	◦ Distribution from port to storehouse ◦ Distribution from storehouse to export company ◦ Technology on fishing boat and port	◦ Vehicle used to distribute fish from port to storehouse is decent (clean and free from contamination) ◦ Car with automatic cooler ◦ Fish skateboard connecting port and Fish Auction Place (TPI) ◦ Hatch with cooler	◦ Every entrepreneur has at least 2 container cars ◦ Every entrepreneur has a car with cooler ◦ There should be at least 2 skateboards ◦ All hand line boats	◦ Repairing and substituting indecent vehicles ◦ Trial of the use of several hand line boats
Growth and Learning				
◦ Improvement in the understanding of human resources to produce high quality tuna products ◦ Supervision in tuna handling activity	◦ Counseling and training to improve fishermen's skill and awareness in handling tuna ◦ Supervision in fishery port	◦ Decrease in fish quality deterioration due to fishermen's fault ◦ Team of tuna supervisor from relevant institution having knowledge of fish quality	◦ All fishermen and port workers (porters, storehouse workers, and workers in port) ◦ At least 1 supervision of each activity process	◦ Adhering caution poster in port area about the importance of maintaining the quality of tuna fish ◦ Establishing a team of quality supervisors

Balanced scorecard strategic formula based on four perspectives has relevance for achievement of goals. In balanced scorecard formula for the

implementation of quality management policy on tuna fishery in Sendang Biru, it can be seen that the growth and learning perspective encourages the

Tabel 4 Balanced scorecard: Objective, strategic goal and goal achievement indicator for the implementation of quality management policy



achievement of strategic goals and objectives of internal business and customer perspectives. Furthermore, these three perspectives will lead to the achievement of ultimate goals and objectives, namely financial perspective Table 4.

DISCUSSION

Strategic steps are made to achieve Strategies that have been formulated by using SWOT. The first strategy that is related to financial perspective is improving the quality of tuna catch. The strategic target is the quality of tuna produced by A and B. The short-term step to achieve the goal is to control the quality or maintain the quality of fish during handling process. High quality of fish produced also will lead to high sale value obtained.

The second strategies are related to customer perspective, namely (1) routine procurement and maintenance of equipment (2) procurement, repair and maintenance of port facility, so that it can function optimally. Strategic objective is that the equipment is complete and clean, before and after being used. Good equipment and facilities will provide trust to companies which buy fish in PPP Pondokdadap that the tuna fish produced is handled with good equipment and facilities.

The third strategy is related to internal business perspective, namely (1) Using decent vehicle for distribution, (2) Using tuna handling technology. Short-term steps that need to be done are (1) repair vehicles that are in improper condition, (2) adjustment of the height of port to lowest tide. The technology referred to in the form of hand line boat and refrigerated hatch to maintain the quality of fish, given the operation of hand line is relatively long, 10-15 days. The technology that can be applied at port is fish skate board that connects port pier with fish auction place. This needs to be done, considering the process of fish transportation currently is only carried by two people by using a bamboo carrier. This transportation process often causes physical damage and contamination in fish due to a rough and dirty floor. This is in line with what is described by Taher (2010) that transportation of fish from fishing boat to harbor should use skate board, which has tent protecting it from the sun. The surface and

angle of the skateboard should be smooth, wet, and continuously flowed with water at 0° C. Distribution facility needed is refrigerated vehicle, considering the location of the shipping company which is quite far, to Bali and Jakarta. Refrigerated vehicles can maintain the quality of fish during the distribution. Decent vehicles for distribution are also needed to transport tuna from port to storehouse.

The fourth strategy is related to growth and learning perspective, namely (1) Conduct counseling and training to improve the skill and awareness of fishermen in handling tuna well, (2) supervision on tuna handling activities. The short-term measures include (1) Adhering caution posters in harbor area about the importance of maintaining the quality of tuna (2) Establishing a supervisory team from relevant agencies. The counseling and supervision of tuna handling activities are expected to improve the skill and knowledge of fishermen and all workers, and reduce errors that can reduce the quality of the catch. According Hubeis (2007), counseling is a learning process aimed at a group of people with the aim of achieving goals. Counseling in this case is addressed to fishermen and workers at port. Fishermen working on boats take an important role in maintaining the quality of captured tuna because fishermen are the first ones to deal directly with tuna fish caught. The habit and mindset of fishermen is only to catch as many fish as possible without considering the quality of fish after being caught. Therefore, skill in handling tuna fish and good knowledge are needed in handling process to maintain the freshness of tuna fish because if fishermen and workers have good skill and knowledge, then there is little chance that errors can trigger fish quality deterioration. Zuana et al (2014) added that conducting training of tuna handling for fishermen is very important because it is a means for fishermen to get a lesson with the aim of improving their skills.

CONCLUSIONS AND SUGGESTIONS

Conclusion

The strategic goals of the implementation of quality management policy on tuna fishery in Sendang Biru include the quality of tuna produced by A and B, complete equipment and facilities which

function optimally, decent vehicle for distribution, technology usage, and counseling and supervision on tuna handling activities. Strategic goals are described in the 10 benchmarks of program success. Strategic objectives will be achieved through short-term action initiatives such as fish quality control during production process, increasing the electrical capacity of port, adhering memorial posters, and establishing quality controllers.

Suggestions

1. Good coordination and cooperation between government, fishermen and tuna businessmen are required in applying good and proper tuna handling.
2. It is expected that there is direct assistance from the government in the procurement and improvement of facilities and equipment so as to support tuna handling activity in PPP Pondok dadap.

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