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The 2nd International Conference On Business And Economics

"Acceleration of Innovation Reconfiguration and Digital Economy Development in an Archipelagic Country Post Covid-19 Pandemic"

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Description of Cover Background Image:

Photo "Faculty of Economics and Business Building, B Building, Pattimura University." – A building that was inaugurated in 2020 will provide space intended for 4000 students who are included in the UNPATTI plan. This was made a priority by the Ministry of Research, Technology, and Higher Education and the Minister of Finance of the Republic of Indonesia, and was followed up by Bappenas and 2019 SBSN funding. The building shape that looks like a ship is taken from the Principal Scientific Pattern of Pattimura University, namely Bina Mulia Maritime Affairs. This indicates that the Faculty of Economics and Business is ready to oversee economic development in Maluku based on islands. The Faculty of Economics at Pattimura University itself has three main buildings supporting lectures with two floors, all located within the Poka Campus of Pattimura University. In general, lecture buildings are equipped with various lecture support facilities. These facilities include air-conditioned lecture halls supported by multimedia equipment, computer laboratories, libraries, auditoriums, student canteens, gazebos, internet hotspots, and motorized vehicle parking lots.

Preface

This proceeding was prepared based on the outcomes of the international seminar on the 2nd ICON-BE activity by theme "**Acceleration of Innovation Reconfiguration and Digital Economy Development in an Archipelagic Country Post COVID-19 Pandemic**", held on October 15, 2022, at the Swiss Bell Hotel in Ambon. The seminar is being held in order to provide constructive scientific thinking to the government and other stakeholders in order to ensure the establishment of the Post-COVID-19 Pandemic Digital Economy, as the subject has been suggested. This seminar's scientific concepts were gathered from researchers, professors, and practitioners.

This international seminar activity was attended by participants consisting of experts, researchers, academics, representatives of the Ministry of Tourism and Creative Economy, as well as practitioners in the fields of business and tourism.

We appreciate the Minister of Tourism and Creative Economy for sharing his thoughts on the need to build a post-pandemic digital economy, particularly in island nations. With the issue raised, gratitude and appreciation are also expressed to the invited speakers, including Mrs. Prof. Dr. Sri Adiningsih, M.Sc., from Gadjah Mada University by Topic "**Digital Economy Transformation in Indonesia**". To Mrs Jeongyoon Lee, Ph.D., from the University of Kentucky with the topic raised "**Policy and Regulatory Network in encouraging Digital Economy Development and Virtual Interaction**". To Mrs. Dr. Vanessa Ratten from La Trobe University with the topic raised "**Impact of Economic Digitalization on Ecotourism in Archipelagic Country**". To Mr. Arif Perdana, Ph.D., CA from Monash University with the topic raised "**Digital Finance and Innovation to Support Financial Inclusion**".

Furthermore, the authors, editors, and organizers of this international seminar acknowledged their appreciation and gratitude for the study findings and seminar perspectives. Everything went off without a hitch, from preparation to execution.

As a result, we anticipate that this process will be especially beneficial to the growth of digital economics in post-pandemic archipelagic countries. If there any flaws in this document, please realize and let us know that it will be addressed in the next event.

Ambon, May 2023

Head of Executive Committee The 2nd ICON-BE

Dr. Conchita V. Latupapua, SE. M.M.

The 2nd International Conference on Business and Economics Committee

(in Bahasa)

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DEKAN

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RESOURCES AND CAPABILITIES OF FISHERMEN IN AMBON: WHAT LEADS TO COMPETITIVE ADVANTAGE?

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ABSTRACT

Introduction/main objectives: One of sectors massively contributing in the economy of Ambon city is fishery and marine. Nevertheless, fishermen, who have important roles in the business of catching and marketing fishes in markets, relatively live in poverty despite their daily efforts. This study aims to investigate how fishermen utilize resources and capabilities to sail. **Background Problems:** enormous fish demands in Ambon city should be the point of advantages for fishermen. Further, these requests are because the main consumption of the people of Ambon city is fish. **Novelty:** This research pictures fishermen lives through economic aspects widely to guideline in exploiting the benefits of fish sales. This situation encourages researchers to find out how fishermen achieve competitive excellence in their businesses. **Research Methods:** this study employs mixed method approaches through questionnaires, intensive interviews, and observation towards fishermen in the villages of Eri, Air Louw, Latuhalat, and Seri. Data were analyzed with SPSS 17. **Findings/Results:** Study findings indicate that resources and capability of fishermen significantly influence their competitiveness. The greater their competences are, the higher the selling rates are, and within a long term their eagerness will develop. **Conclusion:** the more excellent resources used in sailing are, the better fishermen's keenness is. The more their capabilities are, the higher marketing rates are, and within long period of time their ambitions will improve. Small profits are induced by insufficient fishing tools and equipment used compared with fishermen from different regions. Moreover, poor bargaining position of fishermen compared with bidders in markets eliminates their controls to determine market selling prices. The implication is local government must organize policy focusing on increasing fishermen's resources and capabilities. Furthermore, regulations are required to fix fish values in open markets to give controls to fishermen. In long term, fishers do not only focus on consumption needs but also on allocation of savings and investments.

Keywords: going concern, fishermen, bussiness, resources based view, coastal area
JEL Classification: D13, E32, J24, O15

INTRODUCTION

Indonesia as an archipelago nation is quite close to massive interregional discrimination, in particular the Western and the Eastern regions. This leads Indonesia to position on the lowest third in gender equality throughout ASEAN. This gender discernment will finally impact on unequal development where there might be group of people who are not able to access and receive equivalent benefits of developments. This is the reason of gender equality establishment as the fifth out of 17 purposes in Sustainable Development Goals (SDG's) which are intended to be acquired by many countries by 2030, see Figure 1.

Figure 1. The Seventeen Purposes in Sustainable Development Goals (SDG's) Presented with Icon. Source: Ministry of Social Affairs (2021).

Indonesia is one of the countries responding to this issue. Through the President Joko Widodo, a long-term agenda called Nawa Cita is established. Its purpose is to elevate the living quality of Indonesian people starting from the most remote areas (the islands). These islands begin to attain huge opportunities to access equal development benefits. Nawacita converts Indonesian developments to not only centered in Java (Java-centric) but also across the country (Indonesia-centric).

One of the targeted areas of Nawacita agenda is coastal regions. These regions are the highest poverty contributors in Indonesia. Maluku is a province with immense archipelago areas and wide coastal areas. Additionally, this state is 712,480 km^2 wide, consists of around 92.4% ocean and 7.6% land with the number of islands reaching 1,412 islands. One of the islands with rich marine potential is Ambon Island. It is the main city of Maluku Province. It is located in the south of Ambon Island exactly in the coast of Ambon Bay and Baguala Bay. The width total of Ambon city is approximately 786 km^2, consists of 377 km^2 (48.0%) wide land and 4 miles broad and 409.0 km^2 (52.0%) wide sea water. The economy growth in this city is more develop than other regencies/cities in Maluku (Tuhuteru *et al*., 2015).

The abundant products of marine resources motivate many people in Ambon to pursue careers as fishermen. They are businessmen who directly cultivate the biggest natural resources in coastal regions which is the ocean. Fishing operational activities involve catching, storing, and selling seawater fishes.

Fishing activities can be regarded as producing actions because fishermen utilize production factors such as raw materials, tools, machinery, equipment, storages, and oceans as the operational resources. The production factors are later collaborated with fishermen skills to produce fish. The products will be stored in cool boxes until fishers arrive on land and carry out sales. These procedures are performed regularly.

Value chain started from the factors preparation processes to marketing is considered as economy activity sequences which relatively determine fish output qualities. Similar to production process in companies, products' final qualities is decided by the initial series of the production process to selling. Outputs generated consistently and in quality can deliver fishermen to obtain eminent courage.

The rates of fish demand in Ambon City is categorized as high because coastal people are used to consuming fish rather than meat. Great demands can ideally jack up the sale levels and later escalate the prosperity of fishermen. However, this situation has not yet to happen. This appears to be caused by high rate of poverty in coastal areas in Ambon City.

According to World Economic Forum, competitiveness of a region is determined by three main factors which are factor-driven production, efficiency-driven support, and innovation-driven support. Production factors relates to the completeness supporting production process (sailing). In addition, in this study, resource term will be employed. Efficiency supports associate with the ability to manage finance, meanwhile, innovation supports connects to capability to carry out product innovation. Furthermore, capabilities (skills) term will be used. The enormity of marine potentials accompanied by the availability of three assistances above can increase fishermen's competitiveness.

Economy industrialization is suggested to create effectiveness and elevate fishermen's standard of humanism. Embedded potential must be ideally functioned to improve public's standard of living. Unfortunately, that potency is not directly proportional with the rate of public's prosperity. The lives of fishermen in coastal areas are mostly at poverty line. This is marked by the poverty rates in Ambon City which are relatively high 4.5%. One of the main factors is lack of infrastructure development which is facilities and infrastructures in fishermen villages.

Fishermen are a group of community which are less prosper despite their daily efforts. From gender discrimination point of view, individuals are equal when attaining fair access and benefits as other others. However, fishermen have not received those equivalent fishing advantages and outcomes compare to other fishermen from other regions. This situation shows inequality.

Fishermen have not been able to yet manage finance and implement innovation towards fish optimally. The increase of fishermen capability aims to improve profits of fishing because during harvest they must face the fact that products' selling price decrease. This situation causes fishers to experience loss during harvest. Moreover, in this business, agreement on fish prices is not decided by fishermen themselves but by keepers (bidders) in markets. Resources and fishermen skills collaborated with clear strategies can increase their incomes. Massive income can aid their purchasing power. When purchasing power increases, fishermen prosperity is ensured to escalate as well. At the end, it improves competitiveness.

The focus of this research is at fishermen's' competitiveness in Ambon City. This eagerness is measured from production factors represented by the variables of resources, efficiency and innovation factors measured with fishermen capabilities variable. In accounting term, resources and capabilities are classified into asset category employed to produce goods to gain profits. Remembering the significant role of these assets for a business, therefore, obstacles examined in this study is how fishermen in Ambon City utilize resources and capabilities to achieve competitive advantages.

LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

1. Resource Based View

*Resources Based*refers to capitals required by origination to accomplish competitive advantages. Barney (2001) states that resources are whole assets (tangible and intangible) such as company attributes (reputation and innovation), information, and capabilities and strategies to manage resources that can increase effectivity and efficiency of companies. Tangible asset is physical assets which are seen and touched such as, land, buildings, equipment, and capitals.They can provide benefits despite short term because they can be purchased in open markets. On the one hand, intangibles are resources which are not visible physically.These require time to be improved because they are inaccessible in open markets. It consists of human resources (workers who are skilled, experienced, creative, and problem-solving) and intellectual resources (product quality/brand, patent, and partnership).

Regarding resources, Lockett, Thompson, and Morgenstern (2009) point out that there are three central elements in the Resurces Based View: resource functionality, resource combination, and resource creation and decay. By combining resources, firms are able to add value. In fact, Penrose argues that the "opportunity set is also influenced by the way managers combine resources to produce productive services or capabilities".

Furthermore, these sources must fulfill the criteria of VRIN: valuable (V), Rare (R), inimitable (I), and non-*subtitutable* (N). Resources is considered valuable if it helps firms to reduce cost, escalate uniqueness, or combine characteristics of cost and uniqueness to create value for costumers. Rare means resources are not available in competitors because if the competitors have the resource, companies cannot generate uniqueness and competitive advantage. Inimitable is defined as resources are not easy to be imitated by rivals. Non-substitutable means the resources cannot be substituted with other sources. Four of this shape competitive advantage. If companies employ the strategy of value creation which is not possessed by other corporations, hence, they can create additional values for themselves. Value chain management is the main source of competitive advantage which is obtainable through exploitation of companies' internal capability.

2. Hypothesis Development

1. Resources and Competitiveness

Resources are all means assisting humans to produce something with added value. What is more, it allows individuals to transform something worthless to be added value. It is divided into natural resources and artificial resources. Natural ones include ocean, forest, river, land, and mountains. These are available naturally and provide added value to humans through products it contains. Meanwhile, artificial resources are manmade which support human to produce goods with selling value. These are money, transportation, equipment, and other assets buttressing transformation towards outputs with added values. These artificial sources can be called with the term of physical revenue or facilities/infrastructures.

Grant (1991) calls physical capital as input resources required in production process. These resources have crucial roles for performances of a business where without them a business cannot create products. Adequate resource accessibility can jack up business performance (Maheswara, Setiawina, and Saskara 2016). What is more, Grant (1991) mentions that corporations that are aware of the way of managing resources well will reach competitive advantage. Micro business doers combine simple resources with manual process to generate merchandises. Several study findings have proven that resources through production techniques (Sandra and Purwanto, 2015; Purwaningsih and Kusuma, 2015) crucially affect business successes.

Whether natural or artificial resources both obtain cruccial roles for the survival of a business. This is intended to provide optimal benefits of fishing for fishermen. If excellent advantages are achieved, hence, fishermen directly acquire gender equality. This is due to gender equality refers to group of people who deserve to receive equal benefits andd access to resources as well as obtaining similar controls.

Natural or artificial resources both contain essential parts for survival of an industry. Fishermen in the fishing process also necessitate these two which are combined with their fishing strategies. These are ocean, equipment, transportation, machinery, gears, and money. Fishers do not gain results without transportation, utensils, and fishing components. Moreover, caught fish's qualities depend on type of equipment employed. Similarly, Metekohy (2020) finds that capitals are one of the most essential sources to fishermen towards income. Extraordinary revenue indicates that they possess excellent competitiveness. Based on explanation above, it is formulated as following: *H_1: resources positively influence fishermen's competitiveness.*

2. Capability and Competitiveness

Capability is regarded as humans' abilities in industrializing existing resources to accomplish certain outcomes. Additionally, it is often termed with humans' capitals or human resources (HR). There are three types of human capitals which can systematically affect the future of a business. First is explicit knowledge which focuses on the information aspects articulated in formal symbolic language (Polanyi in Schenkel, D'Souza, and Matthews, 2012). This understanding is attained through formal education and trainings. Educational aspects (Gonzalez-Uribe and Leatherbee, 2018) and empowerment of micro, small, medium enterprises (Samosir, Utama, and Marhaeni, 2016) crucially influence micro business' performance. Second is tacit knowledge which concentrates on specific aspects of information that is difficult to articulate or transmitted formally, for example awareness of markets, consumers, technologies, working experiences, and leadership experiences. The finding of Wu and Chen (2014) signifies that knowledge, working experiences, and leadership experiences also encourage the process of creating added value for enterprises. Third is information processing motivation which refers to an individual's motivation to process new information to assist business decision making. In this digital era, human resources in every aspect are obligated to master technology and information well. Business individuals who do not possess understandings regarding this sector might not be productive due to the loss of costumers.

Fishermen as businessmen must also improve their capabilities internally through knowledge, training and self-empowerment to be able to promote raised output qualities. If output escalates, their retailing will also raise and further encourage business expansion and additional fishing industry facilities, hence, finally fishers can attain competitiveness

Fishermen's understandings regarding methods of fishing, storing, and mastering market information can instigate themselves to make decisions and retain extraordinary bargaining influence in market, hence, fish price are not solely determined only by auctioneers. If they have held materials regarding market condition evidently, they can regulate fish price freely and receive continuous profits. This matter will lead fisherman to relish the equality of benefits of fishing process.

Trainings and self-improvement are considered important as well to these individuals as forms to share information associated with ocean condition, optimal fishing practices. These training can be executed through related offices and existing fishermen communities in every village. These matters are rather necessary to motivate fishermen's willingness to advance competitiveness and not comfortable in the current situation. Metekohy (2020) finds that sailing experiences as part of fishing skills importantly affect effort performances of those fishermen. Based on explanation above, hypothesis is organized as following:

H2: Fishermen's capabilities positively affect their competitiveness.

METHOD, DATA, AND ANALYSIS

1. Population and Sample

Research population is all fishermen in Ambon Island. There are some villages of fishermen such us Eri, Air Louw, Seri, and Latuhalat. This study bases sampling with purposive sampling method with criteria: fishermen who work daily, using puresein, 'tonda'.

2. Data Types and Resources

This study employs quantitative approach by distributing questions written in questionnaire. To complete the result of questionnaire completion, researcher carries out intensive interview with fishermen in each location.

3. Analysis Unit

Analysis units in this study are fishermen in Eri-Airlouw Village, Latuhalat, and Seri Village, in Ambon Island.

4. Data Collection Methods

Research methods used in is answering questionnaire executed by research team. Furthermore, direct interviews with fishermen are based on structured enquiries. Other than that, observation is implemented by documenting respondents' behaviors, working methods, and nature condition.

5. Data Analysis Techniques

Data analysis utilized in this study is multiple linear regression analysis using SPSS 17 to observe factors impacting fishermen's competitiveness in Ambon City. Regression equation is formed as following:

$$Y = ®0 + ®_1X_1 + ®_2X_2 + □$$

where: Y = Fishermen's competitiveness; X_1 = Resources; X_2 = Capability; □ = Error

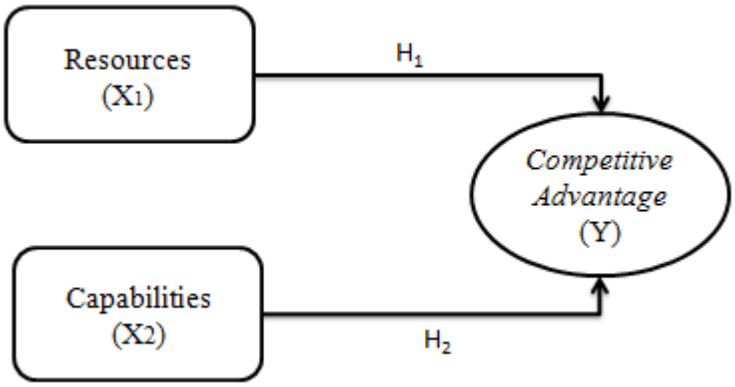

Figure 2. Research Model (2021).

RESULT AND DISCUSSION

1. Respondent Characteristic

Respondents' demography is listed according to gender, age, latest education, and business duration. Table 1 represents it.

Table 1. Respondent Demography Data on the Study.

Respondent Item	Respondent Demographic	Total	Percentage
Sex	Male	60	100%
Age	22 – 41 years old	21	35%
	42 – 61 years old	34	57%
	> 62 years old	5	8%
Education Level	'Sekolah Rakyat' (SR)	2	49%
	Elementary School (SD)	15	25%
	Junior High School	12	20%
	High school & Equivalent	28	47%
	Diploma	2	3%
	Bachelor	1	2%
Length of Business	<= 5 years	4	7%
	6 – 15 years	14	23%
	16 – 25 years	17	28%
	>25 years	25	42%

Source: Data processed based on a survey.

All fishermen in Ambon Island are male with maximal age of 83 years old. Majority have completed senior high school education and pursued profession as fishermen for more than 25 years.

Table 2. Descriptive Statistic Research Indicators.

Indicator	Statement	N	*Min*	*Max*	*Mean*	*St.Dev*
Resource 1	Financial availability to aid fishing process	60	2	5	3.9	0.8
Resource 2	Raw materials availability to aid fishing process	60	3	5	3.9	0.7
Resource 3	Fishing equipment availability	60	2	5	3.8	0.8
Resource 4	Transports availability to aid fishing process	60	2	5	4.2	0.7
Resource 5	Transports availability to market fish	60	2	5	3.6	1.1
Resource 6	Technological availability to aid fishing process	60	1	5	2.8	1.1
Resource 7	Clean and hygienic fish storages	60	2	5	4.5	0.9
Resource 8	Building availability to process products	60	2	5	3.2	1.1
Resource 9	Space availability to process products	60	2	5	3.0	1.0
Resource 10	Long-lasting relation with costumers	60	2	5	4.4	0.7
Resource 11	Market share availability	60	2	5	4.7	0.7
Resource 12	Regular costumers	60	2	5	3.6	1.2
Resource 13	Costumers feel comfortable when in debt	60	2	5	3.4	1.1
Resource 14	Customers' trustworthy	60	2	5	3.5	1.1
Resource 15	Regular customers	60	2	5	4.1	1.3
Resource 16	Fishermen communities	60	2	5	3.9	1.3
Average of Resources					**3.8**	**1.0**
Capability 1	Education to support fishing	60	2	5	3.1	0.9
Capability 2	Implementing unremitting innovation	60	2	5	3.7	1.1
Capability 3	Good quality of fishing outcomes	60	2	5	4.5	0.8
Capability 4	Great skills of fishing	60	2	5	4.5	0.8
Capability 5	Great skills of fish marketing	60	2	5	4.2	1.0
Capability 6	Skills to use the internet to promotion and sales	60	1	5	2.5	0.8
Capability 7	Health to support fishing	60	4	5	4.8	0.4
Average of Capability					**3.9**	**0.8**
Competitiveness 1	Affordable prices compare to competitors	60	2	5	3.7	0.7
Competitiveness 2	Capability to satisfy costumers' daily demands	60	2	5	4.2	0.7
Competitiveness 3	Capability to market fine quality of fish to customers	60	2	5	4.2	0.9
Competitiveness 4	Time accuracy in marketing fish	60	2	5	4.5	0.8
Competitiveness 5	Appropriate price according to fish qualities	60	2	5	4.6	0.7
Average of *Competitive Advantages*					**4.2**	**0.7**

Source: Data processed based on a survey.

The total average value of competitiveness is 4.2 which is considered as high. This indicates that fishermen's competitiveness in Ambon Island is classified as excellent but still requires improvement. The total average value of resources 3.8 and capability 3.9 is high as well. This specifies that fishermen have satisfactory resources and capability in the fishing processes.

2. Indicator Validity Tests

Indicator Validity Tests is carried out in 2 stages which are initial and advanced stages. Initial stage results two invalid indicators which are RS5 and RS16. Because it does not fulfill the validity requirement, indicator RS5 cannot be included in the following test. Table 3 depicts validity test result after indicators RS5 and RS16 are eliminated.

Table 3. Validity Test Result.

Construct	Indicator	Load Factor > 0.40	Validity
Resource (RS)	RS 1	0.516**	Valid
	RS 2	0.596**	Valid
	RS 3	0.608**	Valid
	RS 4	0.416**	Valid
	RS 6	0.508**	Valid
	RS 7	0.483**	Valid
	RS 8	0.485**	Valid
	RS 9	0.477*	Valid
	RS 10	0.500**	Valid
	RS 11	0.488**	Valid
	RS 12	0.429**	Valid
	RS 13	0.426*	Valid
	RS 14	0.469**	Valid
	RS 15	0.504**	Valid
Capability (CB)	CB 1	0.494**	Valid
	CB 2	0.659**	Valid
	CB 3	0.852**	Valid
	CB 4	0.885**	Valid
	CB 5	0.869**	Valid
	CB 6	-0.370**	Valid
	CB 7	0.677**	Valid
Competitiveness (CM)	CM 1	0.602**	Valid
	CM 2	0.817**	Valid
	CM 3	0.785**	Valid
	CM 4	0.709**	Valid
	CM 5	0.841**	Valid

Source: Software output of SPSS 17.

After being confirmed as valid, all the indicators advance to the reliability test. Reliability test result shows that the three variables have Cronbach's Alpha value of over 0.6, which therefore is considered valid (Table 4).

Table 4. Reliability Test Result.

Reliability Statistics		
Variable	Cronbach's Alpha	N of Items
Resources	0.752	14
Capabilities	0.673	7
Competitiveness	-	-

Source: Software Output of SPSS 17.

Following the reliability test are simultaneity and partial tests. Simultaneity test is intended to examine whether variables such as resources and fishermen's capabilities has a simultaneous impact on the fishermen's competitiveness. Table 5 shows the test result.

Table 5. Analysis of Variance of the Simultaneity Test Result.

Anova[b]						
	Model	*Sum of Squares*	*Df*	*Mean Square*	*F*	*Sig.*
1	Regression	164.322	2	82.161	15.800	0.000[a]
	Residual	296.412	57	5.200		
	Total	460.733	59			

a. Predictors: (Constant), Resources, Capability

b. Dependent Variable: Competitiveness

Simultaneity test result reveals that resources and fishermen's capability simultaneously affect the fishermen's competitiveness. This can be seen from the significance value of 0.000.

Table 6. T-Test Linearity of the Simultaneity Test Result.

Coefficients[a]						
	Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.990	2.729		2.195	0.032
	Resources	0.145	0.050	0.359	2.916	0.005
	Capability	0.259	0.097	0.330	2.681	0.010

a. Dependent Variable: Competitiveness

$$Y = 5.990 + 0.145\ x_1 + 0.259\ x_2 + \square$$

The equation shows that the good resources and capabilites positively promotes the fishermen's competitiveness. Partial test shows that resource variable significantly affects the fishermen's competitiveness with the significance value below 0.05, which is 0.005. In addition, capability variable significantly affects the fishermen's competitiveness with the significance value of 0.010.

Table 7. Coefficient of Determination.

Model	R	R-Square	Adjusted R-Square	Standar Error of the Estimate
1	0.598	0.358	0.336	2.277

a. Predictors: (Constant) Resources, Capability

b. Dependent Variable: Y

Table 7 indicates the *Adjusted* R^2 value of 0.336, showing that the roles of resource and capability variables weigh 33.6% over fishermen's competitiveness variable, while the remaining 66.4% is affected by other variables.

Resources and Fishermen's Competitiveness

Resources play a fundamental role in fishermen's competitiveness. This is indicated by the sig value of under 0.05, which is 0.005. This proofs that fishing gears and equipment used for fishing determine fishermen's ability to compete. This confirms the research done by (Maheswara *et al*., 2016, Prasetyo and Harjanti, 2013).

Fishermen in Ambon tend to have considerably mediocre fishing gears and equipment. These include motor boats, machines, nets, fishing gears, fish storage, petrol, and baits. These simple equipment results in fishermen's inability to out yield more fish than those of fishermen from outside the city. For instance, foreign fishermen have more technologically sophisticated equipment hence enabling them to easily detect fish spots. This results in local fishermen losing their chances to catch more fish.

Fishermen use different resources for different types of fishing techniques. For example, anchovy fishermen would require lighting tools. Trolling fishermen would need petrol, storage, lightings and massive nets as well as bamboo fish trap or sea bed nets.

Several fishermen received fishing gears from the government, such as boats and nets. On the other hand, a great number of fishermen rely heavily on their own resources. They also use baits that they obtain themselves prior to fishing. A fisherman from Seri Village says:

> "In regards to the government's assistance, we only received groceries from Department of Social Affair. We received none for fishing tools, so if we earn more from selling the fish, we save some for petrol. We use big boats that require kerosene to operate, and how much petrol it requires depends on how far we fish. If it is nearby, it would cost around IDR 250.000 for petrol, while the farthest distance would cost IDR 500.000" (Mr. Zefnat Tuhumuri, 55).

Petrol cost is the main resource for fishing. This expense tops the list, followed by machines maintenance. Petrol and machine maintenance are the two major expenses but they do not determine the amount of catch. One fisherman from Seri Village claims:

> "I save the highest proportion of my income for operational cost for the next day as well as for machine maintenance. I save some money for maintenance in case the machine is damaged and needs repairing. The remaining proportion is saved for my children's education because this job has been the primary source of income for me and my family" (Mr. Ferry Talahatu).

There are always moments when fishers catch no fish in spite of going so far out in the sea. A going concern strategy is to save some amount of money on petrol especially when the selling price is high. Therefore, the catch does not rely on how far they fish. Similarly, the cost for petrol does not affect the catch. The catch is influenced by the conditions of the sea.

The sea as a natural resource plays a fundamental role in the fishers catch. If the sea is smooth, the catch would be abundant and the selling price soars. Other resource such as petrol does not affect the catch. However, the decision to go out to the sea and fish tend to rely on the availability of petrol because of its daily urgency. Different from boats, baits and nets which are readily available for the fishers. Petrol and fishers are the two inseparable integral aspects of fishing.

Fishing gears also affect the amount of catch. The better and more technologically sophisticated the gears, the more abundant the catch. One setback that the local fishers have is the rather old-fashioned fishing gears, compared to those of foreign fishers. These fishers who enter Ambon Sea are equipped with more modern fishing tools which can easily direct fish to the traps. This results in bigger catch, hence causing the local fisherman a great loss. The following is an excerpt of an interview with a member of a fishing community in Eri village:

> "Our income depends on the fishing gears. If we have all the tools, we need the catch would be plentiful. Yet, if the boats are not well equipped, our income would automatically be low."

Fishers need to clarify the cost variable and fixed cost so that they can calculate the profit they make from production to selling. This is crucial because the cost will generate income for the fishers. Observation and interview results show that fishermen experience difficulty in calculating operational cost because they are not used to such concept.

During famine, in spite of having all the fishing gears ready at their disposal, fishers may catch no fish at all. There are also times when the catch is abundant but the selling price plummets. The lives of coastal fishers rely heavily on fishing. They also perform side jobs such as being farmers and masons, especially when they are not fishing due to rough sea conditions.

In one year, there are two seasons that fishers must face, harvesting and famine. During famine, the fish selling price would skyrocket as well as the demand due to the fact that fish is the main source of food for Ambonesse and hence the main choice. In addition, damaged resources tend to absorb higher cost that the benefits they receive. The frequency of machines being damaged is also higher than that of fish catch. This is highly influenced by foreign fishers who enter Indonesian sea illegally. The competitiveness of local fishers in Eri, Latuhalat and Seri is far below that of illegal fishers. The resources of those illegal fishers are also far better which results in more plentiful catch.

One hour passes and fishers would go back to dry land and distribute their catch to buyers, usually women fish sellers (*jibu-jibu* or *papalele*). The haul would then be sold at traditional markets. Fish

purveyors would wait for the catch and sell them at the traditional market. The selling price is set by the market. Demand and bargain will result in the fish fixed-selling price.

The above factors contribute to the low quality of local fishers. The abundant resource of the sea does not guarantee fishers competitiveness, particularly if the sea is rough. Small amount of haul tends to be caused by bad sea condition and unpredictable weather. In the long term, this will affect the fishers' competitiveness, especially if no innovation is made, especially by the fishers themselves and the local government as the policy makers.

Capability and Fishers' Competitiveness

Test result indicates that fishermen's capabilities affect their competitiveness with the sig value of 0.010 under alpha 0.05. This goes in line with the research done by Asmara, Irnad, and Hartono (2018), Sandra and Purwanto (2015), Purwaningsih and Kusuma (2015).

Fishers in coastal Ambon city implement traditional fishing techniques. This method helps the fishers to make an occasional catch, but there are always times when they make no catch at all. In addition, this conventional way of catching fish causes the fishers to lose the competition with the fishers from outside Ambon. Their catch is affected by the fishing skills.

The vast majority of fishermen have natural fishing skill which they have procured since they were little. This skill is sharpened through experience from daily fishing activities since the majority of the locals live in the coastal area. Other important skill is how to analyze the condition of the nature to determine the correct fishing spots. The ability to analyze the weather is carried from childhood because most fishers come from parents who are also fishers, hence inheriting the skill from one generation to the next. The following is a response of the chair of fishing community in Eri neighborhood:

> "In the past our fishing spots were only around Ambon Bay around the east. Nowadays as life demands increase, we expand our fishing area. We are not bound to one single spot. If so, we would encounter difficulty due to bad weather because it is also one thing to be considered. If the weather is bad in the east area, then we would go for the west area. Hence now we have two main locations for fishing, east and west. The decision to fish in a certain area can be made easily because we can predict the weather easily" (Rolly Pea, chair of fishers' community, Eri neighborhood).

As the time goes by, the fishers have begun to develop their skill and ability through innovation in spite of having financial shortage. One fisher from Eri village responds:

> "The catch is usually sold directly to the market. We have not come up with an innovation for the fish because we are still learning how to make a catch. How can we preserve the fish if there is no budget for that?" (Mr. Rein, a member of fisher community, Eri neighborhood).

The fishers' activity is based on the fishers' knowledge about sea condition, weather as well as the selling stage. The most difficult aspect to control would be the weather. The fishers' strategy when the sea is rough is to go and search for other fishing spots because the vast majority relies greatly on fishing. A conventional method is still used to sell the haul, in which the catch would be taken to purveyors at the market and sold there.

Fishermen business venture involves no use of the internet because all the catch will be sold directly at the traditional market. The internet is such as new culture in this era. If business entities do not adapt to the current trend, it is certain that these entities will fall behind and cannot meet the customers' demands appropriately. Fishers are still far behind with respect to using the internet, unaware that the internet can help them expand their market and open opportunities for business partnership with other online market users.

From all the interviewed respondents, not a single one uses the internet to develop their business venture. This shows that fishers do not adapt to the changing world. This becomes a setback for improving competitiveness of coastal fish catchers. They are internet illiterate. This may be caused by them staying in their comfort zones and do not want to embark on new modern methods. Innovative efforts have not been seen from production to selling processes. The fishers argue that using the internet will only complicate their job, thinking that even without the internet their catch can still make it to the market. The following is a response from an interview with a fisher in Seri:

"The selling process is usually done by my mother. When the catch arrives, she takes them to Mardika Market to sell. The travel to the market is by public transport. Because it is parents who sell the fish, the internet is not required because they are technologically illiterate. Moreover, selling fish directly to the market has been done for a long time because it is not difficult" (Maklon Pea, 47).

The above statement implies that fishers limit the possibility for them to improve their business venture and feel comfortable with the current condition. This hinders their competitiveness, which during harvest season when the catch is abundant, causes the selling price to drop because there is no innovation and methods for promotion. The low price causes the selling to drop, fishers purchase intention also dips and their welfare remains stagnant. The improvement of fishers' competitiveness is ideally supported by the willingness to innovate, adapt to new era, so that they can meet the people's demand right on time.

Other than that, there is one system which has been running at the traditional market, which causes the fishermen unable to determine the fish price freely. This system is fish auctioneers. These people are those who wait at the market for fishers to sell their catch. Ten percent of the income goes to the auctioneers. This system enables to control the market. Fishers can only follow the price set by these auctioneers. In the long term fish catchers will rely heavily on auctioneers. The lack of knowledge and information about market condition cause the fishermen to not have the position to bargain for better price. Fishers are also intimidated by auctioneers, because in this system there is one saying that 'auctioneers are kings. This system has run for so many years, causing the fishermen to remain in the same position from time to time.

Lack of ability for innovation also makes it difficult for the fishers to have a reasonable bargaining position with other competitors. A good bargaining position can only be achieved through a knowing the market condition and innovation.

Fishermen also lack financial management skill. All respondents admit that they have no records of their expenses and income of the business transaction. For them, fishing is a mere activity of fulfilling family needs hence not so important that they need to record their business transactions. This ignorance is constantly pulling down the integrity of this enterprise. Fishing and selling the catch are a series of business activity which can generate income for the fish catchers if well managed. One method is recording business transactions.

All the respondents also acknowledge that they only use intuition for every transaction they make. There is no ledger for expense, income and profit, after all a well-recorded business transaction may help the enterprise to control the business. A high proportion of the money from selling the fish goes for the family needs and the children's education. A vast majority of fishermen do not have bank accounts, because for fishermen who live in the coast, bank offices are too far away which makes it challenging for them to withdraw money in urgent times. Saving money in the banks is unusual for fishermen, as well as investment. This situation is similar to the finding of Wauran (2012) that informal businessmen are not familiar with banks instead sharkloans, money breakers, money bonders, pawnshops, saving and loan cooperatives, and other financial offices with tremendous interest rates.

Fishermen's health condition is important in fishing. In average, fishermen start operating at 01.00 midnights and come back around 07.00. Fishermen are involved in a community in which they fish together. Not only are there individual fishers, there are also fishers who operate in teams. These communities are intended to support each other and share information regarding the weather and fishing techniques.

Overall, fishermen's challenges are relatively wide and complex that numerous policies to solve the problems. Each policy taken must be according to the needs, hence, it will be right on target. Policy meant above can be all empowerment efforts which can be implemented for fishermen as targeted group.

CONCLUSION

Fishermen' operation is a series of business activity which is rarely portrayed. The availability of assets and resources which are combined with capability also contributes to the fishers' income. However, this activity shows no significant grow over the years. This can be seen from the production process (fishing), storing to selling, all which still apply conventional methods. This results in the local fishermen in coastal areas of Ambon having a low competitiveness compared to fishers in other areas. Their competitiveness is significantly affected by resources and their capabilities.

IMPLICATION, LIMITATION AND SUGGESTIONS

Fishers are the main pillars of the economy of coastal areas such as those in Maluku. Therefore, major concentration and innovation are required. Government and stake holders must pay serious attention to support the development of fishers' business venture, especially those in coastal regions. This will eventually improve their economy and quality of life.

For this reason, there are several implications which can be applied by the fishers in the coastal regions of Ambon to improve their competitiveness:

1. Innovation is needed to increase the product's selling point.
2. Training is needed to improve the business skill, so that when the harvesting season arrives, no products are damaged (failed products).
3. The use of internet is crucial as a medium for fish promotion with the selling price set by the fishers themselves, not by the purveyors.
4. Ambon Municipal Government must invest on building fish storage to minimalize business partnership between fishers and purveyors who take advantage from fishers.
5. Government needs to focus more on ocean territory which is often invaded by foreign fishers who often claim the rights of the local fishermen. These foreign fish catchers have more advanced fishing technology compared to those of local people. In addition, they are highly skillful and competent fishers, which lead to them catching more fish than local catchers. This affects the economy of the locals who still remain in the category of low-earning people.

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