Research Paper

Analysis of Young Fisherman Role on Increasing Income in Medan Belawan Sub-District

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ABSTRACT

The objective of the research was to analyze the role of young fishermen as a moral power, as social control and simultaneously as moral power, social control, and agent of change in increasing income in Medan Belawan Subdistrict. The research used quantitative method with multiple linear regression analysis and questionnaires in gathering the data. It also used survey method in which the data were gathered from the samples of the whole population, taken by using simple random sampling technique from 6 villages in Medan Belawan Subdistrict. Frank Lynk formula was used to get 96 respondents as the samples. The result of t-test and F-test showed that, simultaneously and partially, there was significant influence of the role young fishermen as moral power, social power, and agent of change in increasing income of 50.3%. Their potency as moral power, social control, and agent of change gives the opportunity for them to increase their income. Their potency as moral power was indicated by their high loyalty, their work efficiency, cooperation, and their having good understanding and knowledge when they sailed on the sea to increase their income. Their potency as social control was indicated by their participation, criticism, maintaining order, supporting and noticing the government’s policy which curbs the process of sailing on the sea to increase their income. Their potency as agent of change was indicated by their interest in entrepreneurship, leadership, and creativity to increase their income.

Keywords: Role, Young Fishermen, Increasing Income

INTRODUCTION

Indonesia is geographically an archipelagic country with two thirds of the ocean area larger than the mainland. This can be seen with the coastline on almost every island in Indonesia (± 81,000 km) which makes Indonesia rank second after Canada as the country that has the longest coastline in the world. It is this power which is a great potential to advance the Indonesian economy. Data on the Food and Agriculture Organization in 2012, Indonesia is currently ranked the third largest in the world in fisheries production under China and India (Hardiana and Benedicta, 2017). The marine sector which is defined as the fisheries sector, marine tourism, marine mining, maritime industry, sea transportation, marine building, and marine services, is a mainstay in responding to these challenges and opportunities. This statement is based on the fact that the great resource potential of 75% of the Republic of Indonesia (NKRI) is the sea and has contributed significantly to the success of national development. Significant contributions from the marine resources, among others, include the provision of basic needs, increased income for the community, employment opportunities, foreign exchange earnings and regional development. With the vast potential of the
The fishing community is a group of people who are relatively economically, socially disadvantaged (especially in terms of access to education and health services), and cultural compared to other community groups. The condition of coastal communities or fishing communities in various regions is generally characterized by the presence of several characteristics, such as poverty, socio-cultural underdevelopment, low human resources (HR) because most of the population only pass elementary school or have not finished elementary school, and the weak function of existence Business Groups (Kusnadi, 2003).

Medan Belawan Subdistrict is one of 21 sub-districts in Medan, North Sumatra, Indonesia. Medan Belawan Subdistrict is bordered by Deli Serdang Regency in the west, Deli Serdang Regency in the east, Medan Marelan and Medan Labuhan in the south, and the Malacca Strait in the north. Medan Belawan District consists of 6 villages namely Belawan I, Belawan II, Belawan Bahagia, Belawan Bahari, Belawan Sicanang, Belawan Bagan Deli. Medan Belawan Sub-district including very dense settlements, the current environmental conditions are very worrying, where the Medan Belawan sub-district often floods, which is caused by poor drainage. Medan Belawan sub-district has boat ports, so it is not uncommon for us to find slum areas around the coast, and this is also the case in all of Indonesia (Statistics Indonesia Agency, 2016).
The Central Bureau of Statistics in Medan Belawan Subdistrict in the 2016 figures stated that 6 sub-districts of Medan Belawan sub-district each have a fishing profession. Like other fishing communities, Belawan fishermen also rely on the source of their economic life by utilizing marine resources and fisheries. Their fishing activities are very much influenced by weather conditions and the current season. Moreover, the emergence of the phenomenon of climate change that makes weather conditions difficult to predict, their economic activities at sea become very affected (Central Statistics Agency, 2016). Livelihoods as fishermen are no longer profitable for fishermen, so surely there will be no more people who want to work as fishermen in the future. This is probably one factor that becomes an obstacle for those who work or who want to work as fishermen, among others: (1). The current low supply and demand, (2) Inadequate fishing equipment so that they are unable to compete with foreign fishermen who use more modern fishing equipment, (3) Human resources who have the ability to use science and technology and an understanding of innovation that is low, up to dichotomy exploration that is only on the ground is a bit of a common problem experienced by Indonesian fishermen. The fact that is very concerning is the record of the low ability of fishermen so that fisheries catches experience a "drastic decline". The number of traditional fishermen according to the BPS survey results from the 2003-2013 census where the number of traditional fishermen fell from 1.6 million to 864 thousand. From these data the number of older fishermen is more than the young age so this data provides the fact that there is no longer the interest of the younger generation to become fishermen (Prasetyono, 2016).

Young face a period of social and cultural change. Meanwhile, according to the Young Bill, young are those between the ages of 16 and 30 years. Judging from the age side, young is a period of biological and psychological development. Therefore young always have aspirations that are different from the aspirations of society in general. In a positive sense these different aspirations are called the spirit of reformers. In Indonesian vocabulary, young are also known as young people and young people. Often the terminology of young, the younger generation, or young people has various definitions. The definition of young above is more on technical definitions based on age categories while other definitions are more flexible. Where young / young generation / young people are those who have a spirit of reformation and progressiveness.

In developments from time to time young shows the development of their role. With its considerable influence in national development, the government pays attention to the role of young through Law No. 40 of 2009 concerning young. Based on the Act, young have three roles, namely: moral strength, social control, and agents of change. The role of the young mentioned above is the embodiment of the functions, roles, characteristics, and strategic position in national development. In its role to be able to realize and enhance national development, the young have several efforts that are able to encourage the creation of several important conditions in development as follows: a conducive climate, harmonization, good governance, and the political field.

Because of the above, it is necessary to study the extent of the role of fisherman young in increasing income in the Medan Belawan District. This study is expected to provide an illustration of the pattern of increasing income for young fishermen-based people, especially in Medan Belawan Sub-district. So the objectives of this study are as follows to analyze the role of fisherman young as a moral force to increase income, analyze the role of fisherman young as social control to increase income, analyze the role of fishermen young as agents of change to increase income, analyze the role of young fishermen as strength moral, social control,
and agents of change simultaneously towards increasing income in the Medan Belawan District.

LITERATURE REVIEW

Role
The term role in "Big Indonesian Language Dictionary" means showman (film), comic artist on makyong games, behavioral devices that are expected to be owned by people in the community. Role is a dynamic aspect of position (status) that is owned by someone, while status is a set of rights and obligations that a person has if someone does his rights and obligations in accordance with his position, then he performs a function. Role is an action or behavior carried out by someone who occupies a position in social status, role requirements include 3 (three) things, namely: Role includes norms that are related to a person's position or place in society. The role in this sense is a series of rules that guide a person in social life.

Role is a behavior concept that can be implemented by individuals in society as an organization. Role can also be said as individual behavior, which is important for the social structure of society. Role is an orderly series that is caused by a position. Humans as social beings have a tendency to live in groups. In group life, there will be interactions between one community member and another community member. The growth of interaction between them is interdependent. In community life what emerges is called a role. Role is a dynamic aspect of one's position, if a person carries out his rights and obligations in accordance with his position, the person concerned carries out a role. To provide a clearer understanding it is better to first understand about the notion of roles, (Thoha, 1997).

Young
According to the Law of the Republic of Indonesia Number 40 of 2009 concerning Young Article 1 paragraph (1), defines that "Young is an Indonesian citizen who enters an important period of growth and development aged 16 (sixteen) to 30 (thirty) years". Based on the above understanding, it can be concluded that young people are humans aged 16-30 years who have biologically shown signs of maturity. The process of nation building cannot be separated from the role of young, because young is a moral force, social control, and agent of change as an embodiment of the functions, roles, characteristics, and strategic position in national development. Young are individuals who when viewed physically are experiencing development and psychologically are experiencing emotional development, so that young people are human resources both now and later that will replace the previous generation. Young is an individual with a dynamic character, even turbulent and optimistic but has no stable emotional control. Young face a period of social and cultural change

Role of Young as Moral Strength
Young is not only an object of development, but a part of the subject of development. In carrying out its role as a moral force, young can make it happen by fostering aspects of ethics and morality in acting on every dimension of young life; strengthen faith and piety and spiritual mental resilience; and / or increase legal awareness (Susilo and Mardizal, 2002). Yuni Poerwanti, Minister of Political Affairs at the Ministry of Young and Sports representing the Minister of Young and Sports while giving a speech while opening the 2016 Catholic Young Working Meeting in Lamandau District, Central Kalimantan, Wednesday (20/4) said that the government positioned young as a force morality that is able to develop aspects of ethics and morality in acting on every dimension of young life, strengthen faith and piety, spiritual mental endurance, and / or increase legal awareness. (http://beritasport.co/2016/04/25/kemenpora-positikan-pemuda-sebagai-kekuatan-moral/).

a. Role of Young as Social Control
The active role of young as social control is realized by strengthening national insight; raising awareness of the responsibilities, rights and obligations as citizens evoking a critical attitude towards the environment and law enforcement; increase participation in public policy formulation; guaranteeing public transparency and accountability; and / or provide easy access to information (Susilo and Mardizal, 2002). Yuni Poerwanti, Minister of Politics Minister of Young and Sports's Expert Staff representing the Minister of Young and Sports when giving a speech while opening the 2016 Catholic Young Working Meeting in Lamandau District, Central Kalimantan, Wednesday (20/4) said that young must also play a role as agents of change, who are able to develop political education and democratization, economic resources, concern for society, science and technology, sports, arts, culture, concern for the environment, entrepreneurial education, and / or leadership and pioneering young. (http://beritasport.co/2016/04/25/kemenpora-posisikan-pemuda-sebagai-kekuatan-moral/).

b. Role of Young as Agents of Change
The active role of young as agents of change is realized by developing political education and democratization; economic resources; concern for the community; science and technology; sports, arts and culture; concern for the environment; entrepreneurship education; and / or leadership and pioneering young (Susilo and Mardizal, 2002). Yuni Poerwanti, Minister for Political Affairs at the Ministry of Young and Sports representing the Minister of Young and Sports when giving a speech while opening the 2016 Catholic Young Work Meeting (Rakernas) in Lamandau District, Central Kalimantan, Wednesday (20/4) said that young must also play a role as agents of change, who are able to develop political education and democratization, economic resources, concern for society, science and technology, sports, arts, culture, concern for the environment, entrepreneurial education, and / or leadership and pioneering young. (http://beritasport.co/2016/04/25/kemenpora-posisikan-pemuda-sebagai-kekuatan-moral/).

Marine and Fisheries
The development and improvement of this capacity also supports the existence of Republic of Indonesia Law No. 9/1985 and Republic of Indonesia Law No.31/2004 concerning the fisheries sector, which states that activities included in fisheries start from pre-production, production, processing to marketing, which are carried out in a fisheries business system, and this regulation supports the development of marine and fisheries sector activities to increase local revenue. The contribution given by the maritime and fisheries sector to regional income is in the form of local revenue, balance funds, other income, and other sources of income (Muluk, 2007).

Increase in Fishermen's Income
According to Sukirno (2006), income is the amount of income received for work for a certain period, both daily, weekly, monthly, and yearly. The number of catches is reflected in the amount of income received and the income is mostly for family needs, thus the level of fulfillment of family consumption needs is largely determined by the income received (Sujarno, 2008). According to Salim (1999), the factors that influence fishermen's income include social and economic factors, where the factors consist of the amount of capital, the number of boats, the number of workers, the distance when fishing, and experience. Fishermen's income depends on the utilization of potential fisheries resources in...
the ocean. The income of fishing communities directly or indirectly will greatly affect their quality of life, because the income from fishing is the main or even the only source of income for them, so the size of the income will greatly influence their lives, especially their ability to manage the environment in which they live (Hakim, 2011).

According to Sitorus (1994), income is the amount of utility that can be generated through a business. The amount of money received depends on:
1. The amount of money spent by consumers.
2. Number of products marketed.
3. Costs to move products to market.

Fishermen's income comes from two sources, namely income from fishing business (main income) and income from outside fishing business (Sajogyo, 1996). Family expenses can be divided into two, namely expenditures for food and non-food needs. Food expenditures include consumption measures for food groups of grains, fish, meat, eggs, vegetables, nuts, oil, fat, and fruits. Meanwhile, non-food expenditures include costs for housing, fuel, lighting and water, goods and services, clothing and other durable goods. The average family expenditure, especially in poor families is still dominated by food expenditure (Firdaus, et al., 2013). Engel's theory states that the higher the level of income, the percentage of household expenditure for food consumption will decline.

**Boat**

What is meant by the type of boat is the type of sea transportation facilities used by fishermen to catch fish. Types of marine fleet based on its classification are distinguished by several types including:
- Jakung
- A boat without a motorbike
- Small boat
- Medium boat
- Big boat
- Outboard motors
- Motorboat

The size of the boat used affects the overall level of fish production as well as the engine used also affects the performance of the fishing process.

**Fish Catch Technology**

Judging from the technology of capture equipment used can be divided into two categories, namely modern fishermen and traditional fishermen. Modern fishermen use capture technology that is more sophisticated than traditional fishermen. The measure of modernity is not solely because of the use of a motor to move the boat, but also the size of the motor used and the level of exploitation of the fishing gear used. Differences in fishing device technology modernity will also affect their operational roaming abilities (Imron, 2003). Supporting factors in the fishing process are types of fishing gear. The type of fishing gear in question is the type of fishing gear used by fishermen as a means to catch fish. According to Setiawati (1991) in Situmorang, H.D. (2009), the types of fishing gear in the sea can be:

- Large net, measuring 270 meters long and 60 meters wide
- Medium net, measuring 100 meters long with 5-6 meters wide
- Small nets, less than 100 meters in length and less than 5 meters wide
- Drag
- Fishing

The diversity of the size of the fishing gear used by fishermen affects the number of catches obtained, the smaller the size of the net used, the less the amount of fish obtained. Mubyarto, et al (1984) revealed that fishermen who are more productive are wanted by fishermen because they can increase overall fish production.

**Sea Experience**

Experience According to the large Indonesian dictionary, the experience of fishermen can be interpreted as what has been experienced by fishermen who work in the sea in a matter of years. In terms of
experience, fishermen who work who are followed by education can also make someone become independent, with the independence of a person can have the ability to know the problems faced and be able to recognize their strengths or weaknesses. People who have experience will become more skilled people and have skills, as experienced by fishermen, where fishermen have experience of fishing or working in the sea will be more skilled and have the ability to find fish than those who have no experience or few have experience. With this experience, someone will better understand how to be a good fisherman indirectly.

Mileage and Sea Time
What is meant by the range of sailing distance in this study is the distance for sailing by fishermen from the coastline to the sea of the fishing area. The range of sailing distance is adjusted to the size of the boat and the fishing gear used. According to the Decree of the Minister of Agriculture No.607 of 1976 jo No.609 of 1976 as follows:
1. Line I is less than three miles, for boats of less than two GT size, with traditional fishing gear such as rawe fishing rods, fish traps, beach trawlers, klitik and tramels.
2. Line II is three to seven miles, for boats measuring two to five GT, with fishing gear that can be operated on line I plus ramp, payang, gillnet, purse-seine, lamp, arad, cantrang, and axle.
3. Line III, from seven to 12 miles, for boats with sizes ranging from six to 30 GT and fishing equipment that can be operated in this line are all types of fishing equipment owned by Indonesian citizens.
4. Line IV is more than 12 miles, for boats larger than 30 GT, with all types of fishing gear.
Furthermore, according to Masyhuri and Nadjib (2000) explained that at least there is a pattern of fishing which is commonly done by fishermen. "First is the pattern of fishing more than one day, two days, three days, one week / more than one week. This pattern of arrest concerns the coastal prison area. Far nearby the catchment area (fishing ground) determines the length of the sea. Second is the one-day fishing pattern. This one-day fishing pattern refers to offshore fishing. The third pattern of fishing is the midday fishing pattern. This pattern is a pattern of fishing near the coast."
Furthermore, according to Masyhuri and Nadjib (2000) that offshore fishing carried out in one or several days has the possibility of obtaining more adequate income compared to coastal fishing conducted in the middle of the day. Thus the range of sailing distance can determine the fish catch.

Fisherman type
According to MJ (2011), there are three types of fishermen in general, namely:
1. Fishermen entrepreneurs, namely capital owners who focus their investment in fishing operations.
2. Mixed fishermen, namely a fisherman who also does other work besides his basic work as a fisherman.
3. Full fishermen, are groups of fishermen who live as fishermen in the sea using old or traditional equipment.
However, if most of a person's income comes from fisheries (land and sea), he can be called a fisherman (Mubyarto, 2002). Whereas according to Subri (2005), fishermen are grouped into 3 categories, including:
1. Labor Fishermen, namely fishermen who work with other people's fishing gear.
2. Skipper fishermen, namely fishermen who have fishing gear and are operated by other people.
3. Individual fishermen, namely fishermen who have their own fishing equipment and in their operation do not involve other people.

Public policy
Many empowerment programs have been carried out by the government, one of which is economic empowerment of coastal
communities (PEMP). In essence, this program is carried out through three approaches, namely:

a. Institutional. That in order to strengthen the bargaining position of the community, they must be gathered in a solid institution, so that all their aspirations and demands can be channeled properly. This institution can also be an intermediate link between the government and the private sector. In addition, this institution can also be a forum to ensure the revolving of productive funds among other groups.

b. Mentoring. The existence of a companion is indeed felt very needed in every empowerment program. The community has not been able to walk alone, perhaps because of lack of compliance, a low level of mastery of science, or perhaps their level of dependence is still strong because their self-confidence has not yet recovered due to past development paradigms. Apart from that, the role of the companion is very vital especially accompanying the community to carry out its business activities.

c. Rolling Productive Business Funds. In the PEMP program funds are also provided to develop productive businesses that are the choices of the community itself. After the groups of beneficiaries of the funds succeed, they must set aside profits to be rolled out to other community groups who need them. The revolving arrangements will be agreed upon in a forum or institution formed by the community itself by facilitating the local government and assistants.

Empowerment and Extension Conceptually, the relationship between counseling and empowerment is very close. As stated by Satria (2011), "for counseling experts, empowerment is part of counseling. While for empowerment experts, counseling is part of empowerment ". This is related to the understanding of empowerment which means to empower or give power to the community so that the community becomes strong and independent. Power can be in the form of business capital, science, networks, organizations, and so on. Meanwhile, counseling is a process of non-formal education which is actually a form of social empowerment, namely providing power through education. Education provided to the community is non-formal education or counseling which has the role of empowering the target in the following ways:

1. Developing the ability of the community to become increasingly critical in anticipating, seeing, and understanding the problems of life.
2. In a democratic manner, develop an innovation adoption process that is more beneficial to the target community.
3. Accompany the counseling target in the problem solving process (learning from each other and sharing experiences).
4. Become a mediator between policy makers and clients (targets), extension agents as facilitators, and communities as actors (subjects).
5. Develop public awareness of the opportunities that exist, to plan development, implement, and enjoy the results optimally.
6. Developing community capacity to determine development programs, originating locally and globally oriented, and
7. Develop the ability of the community to master and adapt to the physical environment and social environment.

The relationship of empowerment and counseling can be seen from the aspects of empowerment activities and extension functions, as stated by Satria (2011) that "empowerment activities are inseparable from extension functions, because the principles of empowerment are the same as extension principles aimed at" to help them help themselves ". Still according to Satria, that the term empowerment and counseling is often distinguished in the field because the power given in empowerment programs is not only knowledge, but also money and
strengthening organizations. This is where the role of counseling carried out by extension agents has a lot of roles as a companion and catalyst. As a companion because they are expected to be able to provide solutions to problems by helping with ways of identifying needs, identifying problems, and setting goals for changes to be achieved, obtaining sources of information, facilities and infrastructure needed, modifying solutions, and evaluating and anticipating problems that may arise in the future. As a catalyst, because it encourages the desire for change from the community. This usually begins with a sense of community dissatisfaction with existing conditions.

**MATERIALS & METHODS**

The research was conducted in Medan Belawan District, Medan City, North Sumatra Province, the time of the study was carried out for 2 (two) months namely February to April 2018. The research location was determined purposively, based on the consideration that Medan Belawan Subdistrict was one of the sub-districts. most of them have fishing professions located in one of the sub-districts in Medan, North Sumatra Province, the type of research used is explanatory research. According to Sugiyono (2006), explanatory research is research that intends to explain the position of the variables under study and the relationship between one variable and another. The relationship between the variables studied was a causal relationship or causal relationship between the role of fisherman young in increasing income in Medan Belawan District. The data used in this study are primary data and secondary data. Primary data is obtained through field observation, questionnaire filling and interview. Interviews were carried out through in-depth interaction and direct communication with respondents in Medan Belawan District. While secondary data is obtained from relevant agencies or agencies, such as Medan Belawan District, North Sumatra Province Fisheries and Marine Service, Medan City Central Bureau of Statistics, and Chair of Medan City's HNSI (Indonesian Fishermen Association) and literature studies sourced from literature and documents - documents or writings relating to this research. The sampling technique in this study uses a lot of probability theory. Probability sampling is a sampling technique where each member of the population has the same opportunity selected as a sample. Thus the sampling technique used in this study is simple Random sampling. Where simple random sampling is the closest method to the definition of probability sampling. Sampling from the population randomly based on the frequency of probability of all members of the population.

**Population**

The research population which aims to determine the factors of increasing income are all categorical young aged fishermen in Medan Belawan District. To find out the number of productive age population above categorical age of young according to age group and sex in Belawan District can be seen in Table 1. To find out the number of young population according to age group and male sex in Medan Belawan District can be seen in Table 2. To find out the number of people who work as fishermen in the Medan Belawan District can be seen in Table 3.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>35-39</td>
<td>3,563</td>
</tr>
<tr>
<td>40-44</td>
<td>3,273</td>
</tr>
<tr>
<td>45-49</td>
<td>2,826</td>
</tr>
<tr>
<td>50-54</td>
<td>2,396</td>
</tr>
<tr>
<td>Total</td>
<td>12,058</td>
</tr>
</tbody>
</table>

Source: processed from BPS, Belawan District in figures, 2016.

According to the Republic of Indonesia Young Law number 40 of 2009 young are Indonesian citizens who enter an important period of growth and development aged 16 (sixteen) years to 30 (thirty) years. Based on this explanation, it can be seen the number of young aged fishermen in Belawan District.
of population according to age group and sex in Medan Belawan Subdistrict, in Table 2 below.

Table 2. Number of Young Population by Umu Group and Male Sex in Medan Belawan District.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Population</th>
<th>Male</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>4.683</td>
<td>2.567%</td>
<td></td>
</tr>
<tr>
<td>20-25</td>
<td>5.411</td>
<td>3.266%</td>
<td></td>
</tr>
<tr>
<td>25-29</td>
<td>4.313</td>
<td>2.364%</td>
<td></td>
</tr>
<tr>
<td>30-34</td>
<td>3.835</td>
<td>1.013%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18.242</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Source: processed from BPS, Belawan District in figures, 2016.

In this study the total respondents were determined as a sample of 96 people. Of the 96 sample people, the method of taking and determining the total respondents based on productive age above the categorical age of young was divided into each kelurahan so that they were obtained in each of the 16 sample villages. When calculated using the formula above, it is known that the total sample needed to determine the factors of income increase in young fishermen are as follows:

\[
    n = \frac{N \cdot Z^2 \cdot P(1-P)}{Nd^2 + P(1-P)}
\]

Description:
- \( n \): Total sample
- \( N \): Total population
- \( Z \): Normal value of variable (1.96) for 95% confidence level
- \( P \): Highest benchmark price (0.5)
- \( d \): Sampling error (0.1)

When calculated using the formula above (Frank Lynk formula), it is known that the total sample needed to determine the role of fisherman young in increasing income is as follows:

\[
    n = \frac{(24.669)(1.96)^2(0.5)(1−0.5)}{(24.669)(0.1)^2 + (0.5)(1−0.5)}
\]

\[
    n = (24.669)(3.84)(0.5)(0.5)
\]

\[
    (24.669)(0.01) + (0.5)
\]

\[
    n = (24.669)(0.25)
\]

\[
    (24.669)(0.01) + (0.25)
\]

\[
    n = 23.682.24
\]

\[
    246.94
\]

\[
    n = 96 Persons
\]

RESULT

Validity Test and Variable Reliability

Role of Fishermen Young

To find out the results of the validity and reliability test of the role of fisherman young as moral strength, social control, and agents of change can be seen in Table 4.
Based on the results of the validity test it can be concluded that the entire statement of the role of the young variable as moral strength, social control, and change agents is declared valid, it can be seen that r-count is greater than r-table. Reliability testing is done to show the extent to which a measuring device can be trusted. In general, an instrument is said to be good if it has an alpha Cronbach’s coefficient > 0.6, then the research questionnaire is declared reliable (Sekaran, 2003). The test results show that the cronbach's alpha value is > 0.6. This shows that the research data is declared reliable.

**Test for Validity and Reliability of Variable Increases in Income**

The results of the test of the validity and reliability of variable income increases can be seen in Table 5

<table>
<thead>
<tr>
<th>Variable</th>
<th>Butir Pernyataan</th>
<th>r-count</th>
<th>r-table</th>
<th>Information</th>
<th>Koefisien Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancement</td>
<td>1</td>
<td>0.768</td>
<td>0.361</td>
<td>Valid</td>
<td>0.743</td>
</tr>
<tr>
<td>Income</td>
<td>2</td>
<td>0.735</td>
<td>0.361</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.688</td>
<td>0.361</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.813</td>
<td>0.361</td>
<td>Valid</td>
<td></td>
</tr>
</tbody>
</table>

Source: Results of Primary Data Processing, 2018.

Based on the results of the validity test, it can be concluded that all elements of the statement of income increase variables are declared valid, this can be seen that r-count is greater than r-table. Reliability testing is done to show the extent to which a measuring device can be trusted. In general, an instrument is said to be good if it has an alpha Cronbach’s coefficient > 0.6, then the research questionnaire is declared reliable (Sekaran, 2003). The test results show that the cronbach's alpha value is > 0.6. This shows that the research data is declared reliable.

**Young Perceptions of Fishermen Against Income**

Soekanto (1990) suggested young as part of the social system. In the world of marine and fisheries, one of the roles of young is as fishermen. This is in accordance with the characteristics of the urban community whose core work is in the marine and fisheries sector, although not all community members are fishermen. The younger generation, young, young people, young people, or whatever they are called, is a nomenclature that represents a group of residents in a country. This group is important to be observed and given special attention, at least for three reasons. First, seen from the socio-political dimension, the younger generation or young people are seen as the nation's successor as well as agents of change. Second, from the point of view of the socio-demographic dimension, the younger generation is related to aspects of quality in the demographic composition,
so that they become the potential of Human Resources (HR) for the development of the nation in the future. Third, the socio-psychological dimension, young people often clash with the older generation when the young generation seeks identity. The perception of young fishermen certainly gives their own views. Young fishermen assume that work as fishermen is a high-risk job with a small wage. Because of these wages, young fishermen choose jobs outside the marine and fisheries sector and even work in the city. This perception is not as long as true, in Medan Belawan District from the results of the research conducted. Perception of fishermen young towards increasing positive income, this is evidenced by the results of direct interviews with young fishermen in the Medan Belawan District. Perceptions of fishermen young on increasing income include aspects of economic value, fishing technology, government attention, and entrepreneurial spirit or new ideas. The average score of fishermen's young perception can be seen in the following table.

Table 6. Score of Young Perception of Fishermen Against Income Increase.

<table>
<thead>
<tr>
<th>No</th>
<th>Perception</th>
<th>Ratan Skor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Economic Value</td>
<td>3.6</td>
</tr>
<tr>
<td>2</td>
<td>Fish Catch Technology</td>
<td>3.2</td>
</tr>
<tr>
<td>3</td>
<td>Attention of the Government</td>
<td>3.7</td>
</tr>
<tr>
<td>4</td>
<td>Entrepreneurial spirit or New Idea</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Average Score of All Aspects</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Source: processed from primary data, 2018.

The interpretation of the scores of each perception variable is to look at the average score and then the values are interpreted by referring to Table 7. to state whether all variables are in the area specified in the table.

Table 7. Basic Interpretation of Score Questionnaire Items on Perception Variables in Research.

<table>
<thead>
<tr>
<th>No</th>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0&lt; NS≤1</td>
<td>Being in a very negative area</td>
</tr>
<tr>
<td>2</td>
<td>1&lt; NS≤2</td>
<td>Being in a negative area</td>
</tr>
<tr>
<td>3</td>
<td>2&lt; NS≤3</td>
<td>Located in the middle area</td>
</tr>
<tr>
<td>4</td>
<td>3&lt; NS≤4</td>
<td>Being in a positive area</td>
</tr>
<tr>
<td>5</td>
<td>4&lt; NS≤5</td>
<td>Being in the area is very positive</td>
</tr>
</tbody>
</table>


From the average score of all variables the perception of respondents of fisherman young to income increases is in the positive area. These results indicate that there is an understanding that the majority of fisherman young respondents have a perception of the importance of increasing income in the Medan Belawan District.

The perception of the Medan Belawan and HNSI District Government Against the Role of Young Fishermen in Increasing Income in the Medan Belawan District

Perception of the Government of Medan Belawan District

Head of Medan Belawan Sub-district Mr Ahmad, SP through Mr. S.Saing, SE., When interviewed by the author, the following is the summary of interviews: 6 urban villages in Medan Belawan sub-district each have a profession as fishermen. Fishermen generally work as laborers and are spread as semi-modern fishermen and modern fishermen in Gabion. The attention of the Medan Belawan District Government towards increasing income is through facilitators if the companies in the Medan Belawan Sub-district provide assistance in the form of CSR (Corporate Social Responsibility). With this assistance, it is hoped that the fishermen will be helped in fulfilling their daily needs. The synergy of the Medan Belawan District Government was carried out, namely through the distribution of aid provided by companies in the Medan Belawan District. The Medan Belawan District Government also as the policy maker in Medan Belawan Subdistrict also invited HNSI (Indonesian Fishermen Association) to the Musrenbang (Development Planning Consultation) in Medan Belawan District in order to improve the welfare of fishermen in Medan Belawan District. The Medan Belawan District Government also coordinated with the OPD (Regional Device Organization) related to maritime affairs and fisheries, namely the Department of Agriculture and Maritime Affairs, Medan and the Office of Marine and Fisheries of North Sumatra Province.
The policy implemented by the Central Government which was translated by the Office through a Regional Regulation (Perda) will be applied to the Medan Belawan District Government.

**Perception of HNSI Medan City**
Chairman of HNSI Medan City Mr. H.T.Bahrumsyah, S.H. when interviewed by the author, the following is the summary of the interview: HNSI fishermen groups as a means of fishing organizations aim to meet the aspirations of fishermen, including: capture fisheries, processing cultivation. Fishermen of capture fisheries consist of 2, namely traditional fishermen and fishermen laborers. The HNSI (Indonesian Fishermen Association) special program on increasing income in the Medan Belawan sub-district: increasing income through cooperatives (groups of groups), capital support, there is also CSR (Cooperate Social Responsibility) support from companies that are channeled to fishermen, and through training or extension programs. There are ± 10 traditional fishermen who have their own boats or boats, the rest are fishermen who work as traditional fishermen who work for 1-3 days in the sea, even most of them in the middle of the sea, approximately 15 days at sea. From the education level, young fishermen generally graduate from elementary or middle school. Indeed, most fishermen, especially young fishermen, mostly graduated from elementary or middle school. This is due to environmental factors that try to go to sea so forget to study. The synergy of the government and the HNSI is the synergy between the Regional Devices Organization (OPD) of the Agriculture and Maritime Services of Medan City and the North Sumatra Province Marine and Fisheries Service, of course through the training program (counseling) facilitated by the HNSI and the Office once provided assistance in the form of technology catch fish and help fishermen cards. Assessment of young fishermen: generally young people here work as fishermen. Because Medan Belawan Subdistrict is known by the sea so the fishermen here also want to be affected or see their friends go to sea so they go to sea.

The synergy of the KNPI (Indonesian Young National Committee) with the HNSI (Indonesian Fishermen Association) in Medan Belawan Sub-District never existed and HNSI wing organizations did not exist. But it needs to be emphasized that the existence of an fishing organization or community, for example PNTI (Indonesian Traditional Fishermen's Association), etc. is of a sporadic nature. This is because the organization or community is acting when getting assistance.

**The Role of Young Fishermen Against Increased Income**
The young generation is very important for increasing income is the utilization of all potential marine and fisheries resources. The steps that need to be taken to increase income are by exploring and optimizing all resource potential, entrepreneurship, and being sensitive to government policies in fishing regulations. And by empowering people to be able to manage this potential productively and efficiently to improve their welfare. Because, one potential that plays an important role is human resources (HR) that are qualified and have a commitment to increase revenue.

The quality of human resources has an important meaning because all available resources cannot run optimally and are well empowered if they are not played by human resources who are reliable, have integrity, and have strong commitments. The intended HR is young as a generation in the nation's successor who has an active role as a moral force, social control and as an agent of change. Is an embodiment of functions, roles, characteristics and strategic position in national development. To find out the role of fisherman young in increasing income in the Medan Belawan Sub-district can be seen in Table 8. below.
Table 8. Scores of Roles of Fishermen's Young in Increasing Income.

<table>
<thead>
<tr>
<th>No</th>
<th>The role of young</th>
<th>Average Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Moral Strength</td>
<td>3.5</td>
</tr>
<tr>
<td>2</td>
<td>Social control</td>
<td>3.2</td>
</tr>
<tr>
<td>3</td>
<td>Agent of Change</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>Average Score of All Aspects</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Source: processed from primary data, 2018.

The interpretation of the scores of each variable of the role of young is to look at the average score and then the value is interpreted by referring to Table 9. To state whether all variables are in the area specified in the table.

Table 9. Basic Interpretation of Score of Questionnaire Items on Variables of Role of Young Fishermen in Increasing Income.

<table>
<thead>
<tr>
<th>No</th>
<th>Score</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0&lt; NS≤1</td>
<td>Being in a very negative area</td>
</tr>
<tr>
<td>2</td>
<td>1&lt; NS≤2</td>
<td>Being in a negative area</td>
</tr>
<tr>
<td>3</td>
<td>2&lt; NS≤3</td>
<td>Located in the middle area</td>
</tr>
<tr>
<td>4</td>
<td>3&lt; NS≤4</td>
<td>Being in a positive area</td>
</tr>
<tr>
<td>5</td>
<td>4&lt; NS≤5</td>
<td>Being in the area is very positive</td>
</tr>
</tbody>
</table>


From the average score of all variables the role of young fishermen in increasing income is in the positive area. These results indicate that there is an understanding that the majority of respondents to the variable role of young fishermen as moral strength, social control, and agents of change. Thus it can be said that in general the variables of the role of fisherman young as moral strength, social control, and agents of change are important factors that play a role in increasing income.

Influence of the Role of Young Fishermen on Increased Income

Testing of Classical Assumptions

Normality test

The data normality test aims to find out whether in the regression model the disturbance or residual has a normal distribution. To test whether this research data is normally distributed or not known through 2 ways, namely graph analysis and statistical analysis. An easy way to see residual normality is to look at a probability plot that compares the cumulative distribution of a normal distribution. The normal distribution will form a diagonal straight line and plotting the residual data will be compared with the diagonal line. In addition to see residual normality, it can also be done by looking at a histogram graph that compares the observations with normal distributions that are close to the normal distribution.

![Normal P-P Plot of Regression Standardized Residual](image)

The results of the normal plot graph display in Picture 1. It can be concluded that the data spreads around the diagonal line and follows the direction of the diagonal line. This shows that the residual data is normally distributed that is almost perfect (symmetrical).

Multicollinearity Test

Multicollinearity test was conducted to test whether the regression model found a correlation between independent variables. If there is a correlation, then there is a multicollinearity problem. A good regression model should not have a correlation between the independent variables. Testing for the presence or absence of symptoms of multicollinearity is done by considering the value of the correlation matrix produced during data processing and the value of VIF (Variance Inflation Factor) and its Tolerance. VIF values of less than 10 and tolerance of more than 0.10 indicate that there are no symptoms of multicollinearity. So it can be concluded that the regression model does not have multicollinearity problems.
The results of the analysis can be seen that the VIF and tolerance values are as follows, the moral strength variable has a VIF value of 1.083 and tolerance of 0.923. The social control variable has a VIF value of 1.066 and tolerance of 0.939. The change agent variable has a VIF value of 1.024, and tolerance is 0.976. The results of the above analysis can be seen the tolerance value of all independent variables (moral strength, social control, and agent of change) more than 0.10 and VIF values less than 10, it can be concluded that the independent variables do not occur multicollinearity so that the model meets the requirements of classical assumptions in regression analysis, this is due to the existing provisions that if the VIF value <10 and tolerance> 0.10 then there are no symptoms of multicollinearity and the values obtained from the calculation are in accordance with the provisions of VIF values and tolerance.

**Heteroscedasticity Test**

Heteroscedasticity test aims to test whether the regression model occurs inequalities of residual variance, one observation to another observation. To detect the presence or absence of heterocedasticity can be done by looking at the graph of scatterplots. The graph of the scatterplots in Picture 2. shows that the points spread randomly and spread both above and below the number 0 on the Y axis and did not form a regular pattern, it can be concluded that there was no heteroscedasticity in the regression model. Overall, the regression model meets the classical assumption test requirements.

**Hypothesis testing**

**Determination Coefficient Test Results (R2)**

The coefficient of determination is used to test the goodness-fit of the regression model that can be seen from the value of R Square. To find out the relationship between the role of fisherman young as moral strength, social control, and agents of change with an increase in income can be seen through the magnitude of the coefficient of determination.

The result of the calculation of the value of R Square is 0.503; this means that 50.3 percent of the increase in income can be explained by variables (moral strength, social control, and
change agents) above, while the remaining 49.7 percent is explained by other variables not examined in this research.

Simultaneous Test Results (Test F)
Simultaneous tests are used to determine whether the independent variables simultaneously or simultaneously affect the dependent variable. For more details, see Table 12

Table 12. Simultaneous Testing Results (Test F) Effect of the Role of Young Fishermen on Increased Income.

<p>| Source: processed from primary data, 2018. |</p>
<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>201,072</td>
<td>3</td>
<td>67,024</td>
<td>30,323</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>198,928</td>
<td>90</td>
<td>2,210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>400,000</td>
<td>93</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simultaneous statistical tests are indicated by a comparison of the values of F calculated with F table. The value of F table with a confidence degree of 95 percent is 2.47. In Table 12 above it can be seen that in the equation, Fcount 30.323 is greater than F table. The probability level is 0.000. Then it can be concluded P = 0.000 <α = 0.05 which means Ha is accepted. This explains that the independent variables (moral strength, social control, and agents of change) are simultaneously significant in explaining increased income.

Partial Test Results (t-test)
In a partial statistical test with a critical t value (critical value) at df = (n-k), where n is the total sample and k is the total independent variables including constants. To test the coefficient of individual partial regression of each independent variable can be seen in Table 13.

Table 13. Partial Testing Results (Test - t) Effect of the Role of Young Fishermen on Increased Income.

<p>| Source: processed from primary data, 2018. |</p>
<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.452</td>
<td>1.685</td>
<td>.268</td>
</tr>
<tr>
<td>KM</td>
<td>.153</td>
<td>.063</td>
<td>.188</td>
<td>2,431</td>
</tr>
<tr>
<td>KS</td>
<td>.456</td>
<td>.065</td>
<td>.541</td>
<td>7.055</td>
</tr>
<tr>
<td>AP</td>
<td>.432</td>
<td>.076</td>
<td>.429</td>
<td>5.703</td>
</tr>
</tbody>
</table>

In Table 13 the results of the statistical test t are obtained, as follows:

1. Variable moral strength shows t-count = 2.431 and t-table 1.660 with probability level 0.017. Thus it can be concluded that P = 0.017 <α = 0.05, the hypothesis Ho is rejected and accepts the Ha hypothesis which states that the variable moral strength has a significant positive effect on increasing income.

2. Social control variables show t-count = 7.055 and t-table 1.660 with a probability level of 0.000. Thus it can be concluded that P = 0.000 <α = 0.05 then the hypothesis Ho is rejected and accepts the Ha hypothesis which states that the social control variable has a significant positive effect on the increase in income.

3. Variable agent change shows t-count = 5.703 and t-table 1.660 with a probability level of 0.000. Thus it can be concluded that P = 0.000 <α = 0.05, the hypothesis Ho is rejected and accepts the Ha hypothesis which states that agent change variables have a significant positive effect on income increase.

DISCUSSION
Young is a community of people aged 16 to 30 years who have brilliant,
creative and innovative thoughts. The hope in many of the ideals of this nation lies in the hands of young people. The perception of fishermen young in increasing income in Medan Belawan Subdistrict is positive, because the role of the younger generation in increasing income is very important, we have seen that marine and fisheries in Indonesia are currently experiencing aging. Therefore, young people must be encouraged to be interested in the marine and fisheries sector. Young people must be motivated in the maritime and fisheries sector, so that they can become a driving force to increase income in the Medan Belawan District. Based on the results of research conducted by the role of fishermen young with dimensions of moral strength, social control, and agents of change have a positive effect on income increases both simultaneously and partially. It is concluded that there is an opportunity for fishermen young as a motorbike to increase income in the Medan Belawan District.

Based on the results of research conducted that the factor of the role of fishermen young in the dimension of moral strength has a positive effect on increasing income. This is due to the fact that young fishermen generally improve work efficiency, personal and group image, have high loyalty, and have an understanding or knowledge to increase income. This is in accordance with Susilo and Mardizal (2002) literature which states that in carrying out its role as a moral force, young can make it happen by developing ethical and moral aspects in acting on every dimension of young life. This is also reinforced by the situation when fishermen go to sea the fishermen have their respective duties and functions when fishing, and have high loyalty when fishing to increase the income of fishermen. Based on the results of the research conducted, the factor of the role of fishermen young in the social control dimension has a positive effect on increasing income. This is due to the fact that young fishermen participate in criticizing policies or regulations that do not favor fishermen in inhibiting the process of going to sea, participating in maintaining order or peace in order to support the smooth running of activities for young fishermen, encouraging government policies to be provided in the form of fishing cards, and responding to policies government that is not pro against the surrounding community or the general public. This is consistent with research conducted by Dault (2007) that the factors that influence the role of young in the development of marine and fisheries are public policy, young entrepreneurship, ownership of social capital, and mastery of resources. The most influential variable in public policy is the intensity of counseling and credit. There is a correlation between factors that influence the role of young and indicates that public policy will be biased effectively if it is supported by policies related to other factors simultaneously.

Based on the results of the research conducted, the factors of the role of fishermen young in the agent dimensions of change have a positive effect on increasing income. This is due to the fact that the majority of young fishermen have entrepreneurial spirit, have leadership in the organization to provide positive encouragement to the government to advance the income of fishermen, and preserve the environment on land and at sea to increase income. This is in accordance with the literature of Susilo and Mardizal (2002) which states that the active role of young as agents of change is realized by developing economic resources, concern for society, science and technology, entrepreneurship education, and young leadership. In general, young fishermen are also members of the HNSI organization and some have a management structure and criticize government policies. Most young fishermen have entrepreneurial spirits in managing the results of fishing and have an entrepreneurial spirit when not fishing. Based on the results of the research conducted by distributing 96 questionnaires, it was found that young people with
elementary education were 22 people (22.9%), junior high school 67 people (69.8%), and 7 people (7.3%) had high school education. It can be concluded that in general the education level of young educated fishermen is low. The low level of education causes the income obtained by a person is relatively low while the higher education so that the person will have the ability to face life where education obtained by someone can do business and work in order to obtain sufficient income for living needs and improve living conditions in order to achieve the welfare used.

The low productivity of labor is one of the factors that influence the low income of fishermen, especially those in the coastal areas in Medan Belawan District. If they do not work, some fishermen will not get income to finance their daily needs and will reduce the welfare level of the fishing community. Based on the results of the research conducted, the factors that increase income are material consisting of sea / month capital, income / month, expenditure / month, and side income / month. It can be concluded that the results of the questionnaire distributed in income / month are a majority below the Minimum Wage (Regional Minimum Wage). Based on the results of the research conducted, 100% of the questionnaires were based on ownership / boat rental / leadership status, 100% used fishing technology, and 100% labor fishermen. This is the majority of fishermen in the Medan Belawan Subdistrict are labor fishermen who expect salaries from the leadership or tauke. Based on the results of research conducted by distributing questionnaires, some young fishermen have never received assistance from the government and some young fishermen have also never attended counseling. This is in accordance with the results of interviews with the Medan Belawan District Government and the Chair of the HNSI that assistance from companies located in Medan Belawan District was given to fishermen through the government of Medan Belawan District and Chair of the HNSI. However, not all young fishermen have enjoyed the assistance.

**CONCLUSION**

1. The role of fisherman young as a moral force has a positive effect on increasing income in the Medan Belawan District. This means that the role of fisherman young as a moral force is seen as important and still needs to be increased for increasing income in the Medan Belawan Sub-district.

2. The role of fisherman young as social control has a positive effect on increasing income in the Medan Belawan District. This means that the role of fisherman young as social control is seen as important and still needs to be increased for increasing income in the Medan Belawan Sub-district.

3. The role of fisherman young as agents of change has a positive effect on increasing income in the Medan Belawan District. This means that the role of fisherman young as a moral force is seen as important and still needs to be increased for increasing income in the Medan Belawan Sub-district.

4. The role of fisherman young as moral strength, social control, and agents of change has a positive effect on increasing income in Medan Belawan Sub-district. This means that the role of fishermen young as a moral force, social control, and agents of change is seen as important and still needs to be increased for increasing income in the Medan Belawan District.

**REFERENCES**

Desa Ketapang Barat, Jawa Timur. J Sosek kp.8 c1/

- UU RI No. 40 Tahun 2009 Tentang Kepemudaan.

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