# FORMAL EDUCATION, WORK EXPERIENCE AND EMPOWERMENT OF THE FISHING COMMUNITY IN TERENGGANU, MALAYSIA

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#### ABSTRACT

**Background and Purpose:** Efforts in bringing about changes to fishers' lives are often met with obstacles due to their lack of participation in empowerment programmes as well as their excessive reliance on external assistance. However, such situations are said to be the results of their level of education and work experience. This paper also examines the relationship between work experience with empowerment and formal education as a control variable to the relationship. Therefore, this paper aims to observe the reality of empowerment among fishing communities from the lens of participation and self-reliance among fishers in Terengganu, Malaysia. Concurrently, this study also reviews the theme mentioned above from the lens of formal education and work experience and their impacts on the fishing community empowerment.

**Methodology**: This study used a survey design and involved 220 coastal fishers, who were identified through multi-stage sampling. Data were gathered using a questionnaire, and data analysis was done through descriptive statistics and the Analysis of Variance Test (ANCOVA).

**Findings**: The empowerment of the fishing community in this study is not influenced by the number of years they have spent as fishers. On the other hand, their level of education plays a pertinent influence on their empowerment. Such a finding clearly shows that experience is not only a major factor in increasing the empowerment of the fishing community.

**Contributions**: This study contributes to our understanding that it is undeniably true that formal and informal education play an integral role in empowering the fishing community, where through education, fishers are more participative in their community and exhibit autonomy towards their work.

Keywords: Fishers, empowerment, formal education, experience, community development

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## **1.0 INTRODUCTION**

Community empowerment refers to the rise of personal understanding, relationships, or power in the community (Pyles, 2009). Most of the time, empowerment occurs through awareness-raising activities, participation in social action, and role play in the community (Pyles, 2009). Past studies have categorised community empowerment into two elements, namely active participation (Bahari, 2013; Lyndon, Moorthy, Er, & Selvadurai, 2011; Tremblay & Gutberlet, 2010; Fawcet et al., 2010) and self-reliance (Bahari, 2013; Lyndon et al., 2011; Fawcet et al., 2010). Unlike in the past, community empowerment efforts have taken place more actively these days, and this includes the coastal fishing community in Terengganu, which is the main focus of this study.

The fishing community in Malaysia is one of the forces that has contributed to the sustainability of Malaysia's Gross National Product, 2019, through their fishery products. In 2019, Malaysia's fisheries sector had contributed up to 12% to the country's agricultural sector (Department of National Statistics, 2020). This figure has increased 0.2 percent compared to the previous year and subsequently signals that the contribution of seafood catch has increased, with fishers being able to get a catch of 1455.4 thousand metric tons compared to 1452.9 thousand metric tonnes in 2018.

According to the 2016 Annual Report of the Malaysian Fisheries Development Authority (LKIM), fishers' average monthly income was around RM 1255 (LKIM, 2013). However, their income in 2017 showed a huge leap, with an average of RM 2300 per month (LKIM, 2017). Despite the increase of 13 percent, fishing is still listed as a job that belongs to the B40 households with not more than RM 3000 per-month, based on the Household Income and Basic Facilities Survey Report.

Until 2018, there were 8985 fishers registered with UPEN. The number of boats for fishing activities is estimated around 2578, and of that number, 1422 boats are outboard owned by coastal fishers (Terengganu Economic Planning Unit, UPEN, 2019). The location of their living, which is close to the beach, is one of the factors that influences the decision to work as a fisher in order to support their daily needs.

In Terengganu, coastal fishers are traditional fishermen who operate from land within a distance of 1-5 Nautical Miles with their small boats. From the social context, such as education, coastal fishers are normally equated with a low education background. Furthermore, in certain situations, they also have limited access to health and education due to the limited number of facilities available in their community (Ibrahim & Anuar, 2016). In fact, according to Ibrahim and Anuar (2016), coastal fishers continue to face poverty issues as their source of income depends entirely on the seafood products that they catch from the sea. Concurrently, the economic resources of coastal fishers are low due to other factors, especially in terms of facilities.

Participation is an authority given to individuals to enhance their role in the community that they are in and as an initiative to attract more people in the community to participate in community activities (Pelit, Ozturk, & Arslanturk, 2011). Participation helps community members to identify issues, engage in planning and implement actions in order to produce the desired changes (Wilson, Minkler, Dasho, Wallerstein, & Martin, 2008).

Participation by community members in activities organized by their circles creates community development (Suharto, 2009). Through the activities, communities are able to implement the decisions that they have agreed on (Capistrano & Charles, 2012) and develop their community according to their objectives and aims that they have set (Simmons, Reynolds, & Swinburn, 2011; Jentoft, 2005). Moreover, members will also have the opportunity to develop their soft and generic skills, including organizational leadership skills collectively, transparently, and democratically (Tremblay & Gutberlet, 2010). The efforts shown by the community members in participating in each activity as a group clearly show that they have the capacity to shape their community. Portraying such characteristics may herald that the community members are actively playing their roles and trying their best to be independent of external parties' total-help.

On the other hand, self-reliance is an ability to rely on one's own ability (resources) to self-manage oneself by mobilizing available resources as an investment for a better life (Thomas & Pawar, 2010; McAreavey, 2009). Self-reliance refers to the ability of the individual in the

community to improve the community (Fonchingong & Fonjong, 2002). Fonchingong and Fonjong (2002) also reiterate that self-reliance is no different from the principles of helping oneself. This also explains that self-reliance is an element in community empowerment, where the members can advance themselves and their community towards better development. This is true as they need to make an effort to identify their real needs before their community can progress. Identifying the needs heralds the freedom they have in choosing activities or work that can help them to improve their community.

On the same note, the UNESCO and Rad, Ates, Delioğlan, Polatöz, and Özçömlekç (2012) also highlighted that education is an important factor in determining the level of participation of a community. This is because education involves the process of potential building to better one's life (Hasmori, Sarju, Norihan, Hamzah, & Saud, 2011). A good level of education encourages community members to access better information and skills, to develop themselves through the process of socialization in the community and to strengthen the relationships with other people (Helliwell & Putnam, 2007).

Apart from the level of education, work experience is also believed to contribute to community empowerment. According to Ani, Abu Samah, Redzuan, and Ahmad (2016), small groups tend to rely on experience in order to achieve empowerment. In fact, experience is also a factor in possessing a better source of employment and income (Lamia, 2013). Lamia (2013) also suggests that a person's work experience can be determined through period of time that they have spent in their field of work. Such an involvement may reflect that the longer a person in a job is, the longer he or she will have an impact towards their community (Abd Kadir & Sohor, 2009).

Apart from formal education, knowledge gained by a person from previous generation and later passed down to the younger generation also merits our attention as we discussed matters related to community empowerment (Abd Kadir & Sohor, 2009). This belief echoes with the statement made by Nadzri, Roslu, Bakar, and Baharudin (2015) where they mentioned that fishing community often pass down their skills and knowledge to their younger generation by bringing them to the sea. Educational factors have been identified as being able to have an impact or as a mediator on community empowerment. Formal education as a mediator to work experience (independent variable) against community empowerment (dependent variabel).

# 2.0 EDUCATION, EXPERIENCE AND EMPLOYMENT ISSUES AMONG FISHING COMMUNITY

Officially, the task to develop and empower fishers in Malaysia is given to the Malaysian Fisheries Development Authority (LKIM). To date, various programs have been organized by the LKIM. This includes the efforts to increase sources of income, provide infrastructure, organize courses and training, advisory services, marketing, enforcement, research, and development of fishers. However, the efforts made by LKIM are less effective because they do not fully involve the fishers. Such an action contradicts past studies that suggest the need for fishermen's involvement (Mohamed Shaffril, Abu Samah, D'Silva, & Md. Yassin, 2013; Awang, Idrus, Omar, & Abdul Rahman, 2004).

Mohamed Shaffril et al. (2013) however, highlighted that even if the fishers participated in the development programme, such participation was usually driven by incentives for attending it. Such a condition, unfortunately, is not a healthy condition for a long term project. Participation motivated by certain incentives will not have much impact for a long period (Kayat & Mohd Nor, 2006). This could also mean that the fishers were forced to join the programme rather than due to their self-interest.

Regarding the issue of self-reliance among fishers, this issue has persistently remained a problem until now. For example, fishers still expect intermediaries to market their seafood products (Wan Mohd Zaifurin, Mamat, & Abdul Majid, 2009). Among the reasons that lead to such behaviour is due to their small capital and low level of ICT knowledge (Ramli & Mohd Rabani, 2017). On the contrary, many fishers have specialized expertise related to the sea (Mohamed Shaffril et al., 2013) and the marine products that they obtained are also high in terms of quality and value (Petersen, 2007). What fishers lack is their efforts to be self-reliant and less dependent on others.

On a similar note, efforts to empower fishers often being hampered by the ownership of formal education. According to Ramli, Sheikh Dawood, and Mohd Som (2019) and Ibrahim and Anuar (2016), fishers often face dropouts from formal education due to their poverty, and on average, fishers only possess primary school level of education (Ramli, 2019; Ramli & Mohd Rabani, 2017). Some fishers' kids also skip formal education at secondary school due to their involvement in fishing activities with their parents and the influence of their environment (Ibrahim & Anuar, 2016).

Thus, the efforts to empower fishers are slowing down due the possibility that they are not ready to learn new skills and knowledge for their future. This reality can also be observed through their lack of desire to increase their income through participation in other economic activities (Ibrahim & Anuar, 2016; Ramli & Mohd Rabani, 2017). This of course cannot be forced by external parties as involvement in formal education is dependent on one's readiness.

Instead, they are more convinced that the experience that they possess and pass down is more important and valuable for their survival and income (Ibrahim & Anuar, 2016). For example, their experience and knowledge to track marine resources (Mohamed Shaffril et al., 2013), and experience to determine climate change (West & Hovelsrud, 2010) have made them completely dependent on that experience solely. What is more, all the experiences mentioned earlier are passed down by their family instead of learning at school (Aryanto & Sudarti, 2017). Hence, it is not weird to see why this community has less impression towards formal education.

Based on the issues mentioned earlier, it is possible that efforts to empower fishers from the aspects of participation and self-reliance are affected by their level of formal education and experience Thus, this paper seeks to identify the empowerment of fishers in Terengganu, Malaysia, from the dimension of participation and self-reliance. This study also analyzes the influence of formal education and work experience on fishers' empowerment. Education was a control variable in examining the influence between work experience and the empowerment of the fishing community.

#### **3.0 RESEARCH METHODOLOGY**

This study used a survey design to identify the level of empowerment of fishers in Terengganu. Data were collected using a questionnaire. The questionnaire contains two sections: the basic demographic section and the section that examines empowerment among fishers. The demographic section or Part A focuses on gathering information related to the respondents' formal education level and experience.

On the other hand, Part B measures the reality of active participation and the self-reliance of fishers. Active participation includes community members' involvement in participating in every community development effort (Sudarmono, 2009). Active participation among fishers includes participation in community development programmes, namely the process of problem identification and needs, planning, implementation, monitoring, and improvement in community development efforts. Concurrently, the measure of self-sufficiency is understood through the element of capacity or ability to rely on self-efficacy in managing, mobilizing and using available resources as an investment for a better life (Thomas & Pawar, 2010). The ability to be independent without others' help is seen from the lens of improving the socio-economic of the family by doing business or working overtime in the fishing industry or non-fishing industry.

To investigate the active participation and self-reliance of the target fishing community, this study used a questionnaire with a 4-point Likert scale. The ordinal scale was arranged sequentially like in the study done by Amir Zal, Abdul Rahman, Tengku Anuar, Mat Saleh, and Md Rasdi (2020). The measurement points are, 1 =Never, 2 =Rare, 3 =Sometimes and 4 =Always. The use of ordinal measurements based on the Likert Scale is to measure community empowerment.

An internal consistency test was conducted using Cronbach's Alpha test (Table 1) and the results indicate that the questionnaire items have a high level of consistency value of 0.879 (Community Empowerment).

Variable Community Empowerment		Participation	Self-Reliance	
Cronbach's Alpha	.879	.758	.916	

Table 1: Cronbach's Alpha Value

This study was conducted in Terengganu. To be more specific, the respondents of this study lived in the Kuala Terengganu (North) and Kuala Besut. Fishers in Kuala Terengganu were selected because the area is rapidly developing. After all, Kuala Terengganu is the capital city of Terengganu. While Kuala Besut was chosen because it is located far from the capital city of Terengganu and closer to the state of Kelantan as shown in Figures 1 and 2. The catch statistics, as reported by the Terengganu Economic Planning Unit (UPEN) in the two districts, show that 20 866.26 tons of fish out of 36 776.01 tons was obtained by coastal fishers from all over Terengganu.

The population studied only involves coastal fishing communities. Researchers learnt that, there have been several studies conducted in both places but it is not enough to specifically understand the empowerment of the communities. Therefore, research on a specific empowerment needs to be carried out as previous research only revolves around fishermen socioeconomic (Firth

1966; Wan Hashim, 1980) and social mobility in coastal communities only (Sa'at, 2011). The same goes to the study carried out by Mohamed Shaffril et al. (2013), which only focuses on social adaptation and the use of technologies in fishermen's activities. Generally, these studies showed that there was empowerment, but the empowerment mentioned was not specifically examined in the aspect of participation and self-reliance.



Figure 1: Malaysian map

Source: https://www.google.com.my/maps/place/Malaysia/@4.111216,100.5588516,3046206m/data



Figure 2: Terengganu map

Source:https://www.google.com.my/maps/place/Terengganu/@4.9407276,101.8089229,380340m/data

The population in this study consists of 326 coastal fishers. Respondents were selected from the sampling framework obtained from the District Fisheries Offices of Kuala Terengganu and Kuala Besut. The study's analysis units are based on these criteria: full-time coastal fishers, own a small boat and registered with the District Fisheries Office.

From the criteria mentioned above, this study managed to identify 220 respondents. One hundred respondents were from Kuala Terengganu, and 120 respondents were from Kuala Besut. The total sample size was obtained using Cochran's (1963) formula and also based on the maximum sampling error of 5 percent (Corbetta, 2003).

The questionnaire used in this study had gone through several procedures through a pilot study implemented on a fishing community in Kuala Terengganu Selatan (Kuala Ibai). This process involved 40 respondents. According to Sahu (2013) and Sabitha (2009), the minimum number of respondents for a pilot study is 30 respondents. Therefore, the pilot study had fulfilled the requirements to obtain data for the statistical analysis process. Subsequently, the questionnaire in this study had also gone through the validity process. According to Muijs (2004), validity refers to measuring research variables with accurate measurements. This study satisfies two validities, namely content validity, and face validity. Content validity is achieved through detailing variables

through past reading materials (Muijs, 2004). In line with Muijs's (2004) suggestion, face validity had been obtained by asking respondents about the form of the questionnaire, whether the items are appropriate to be used in that specific context. Through the pilot study procedure, this study's content validity and face validity have been ascertained.

Sampling is a procedure used to identify population units based on the sampling criteria. This study had identified the samples of this research to correspond to the study's objectives (Sabitha, 2009). This study used a multi-stage sampling. Multi stage sampling is a usage of two or more sampling methods in a study (Sedgwick, 2015). This study obtained samples by combining two sampling procedures which are purposive sampling and systematic sampling. The list of names then became the sampling framework in selecting the samples (Sabitha, 2009). The process began by obtaining the list of names from the District Fisheries Department of Kuala Terengganu and Besut.

Firstly, purpose sampling was carried out. Fishermen with these characteristics had been selected as a sample of the study. Through purposive sampling, the names were compiled based on the unit of analysis, namely the coastal fishers, working full time as a fisher, and aged between 18 and 75 years old. After that, the names of the respondents were arranged in ascending order, and systematic sampling was carried out.

In the systematic sampling process, sample intervals were obtained in each sample size of the two areas. The sample intervals identified were each second number of sample size names (2,4,6,8......) of the sampling framework that had been arranged.

To ensure that research ethics is followed, selected respondents were ensured to voluntarily participate in this study and they may request to drop out of the study at any time. Their identities were also not disclosed to others, including in the study report. Data were analyzed using SPSS software for descriptive statistics as well as inferential statistics. The Analysis of Variance Test (ANCOVA) procedure was conducted to analyze the relationship between empowerment, level of formal education and respondents' experience.

#### 4.0 RESULTS AND DISCUSSION

This study explores the empowerment of the fishing community in Terengganu from the dimensions of participation and self-reliance. The section begins by describing the respondents'

level of education and their experience in general, before going into a detailed discussion on the influence of formal education and experience towards the fishing community's empowerment.

## 4.1 Fishers' Level of Education and Work Experience

Table 2 shows the results of the study related to respondents background. 100 fishers (45%) were from Kuala Terengganu and 120 fishers (55%) were from Besut. The majority of the respondents were between 35 and 60 years old (55%). Meanwhile, 77 respondents were 61 years old and above (35%), 17 fishers (8%) were between 20 and 34 years old, and only one fisher was 19 years old (1%). All fishers involved in this study are male.

In terms of the level of formal education, more than half (60%) of them have primary school level education. Twenty-eight percent of the fishermen have been to secondary school, 10 percent have never been to school, and only 1 percent of fishers have attended college-level education. The range of monthly incomes earned by the fishers was between RM 751 to RM 1500, with 81 fishers (37%). This is followed by the highest income group or those who earned above RM 1500, with a total of 75 fishermen (34%). The third group is fishers who earned between RM431 and RM750, with a total of 59 fishers (27%). Only five fishers were found to earn below RM430 monthly. In terms of experience as a fisherman, almost half of them (47%) has over 40 years of experience as fishers, 18% of respondents have between 30 and 39 years of experience, 15 percent of respondents have between 20 and 29 years of experience, 14 percent of the respondents have between 11 and 19 years of experience and only 6% of the respondents have less than 10 years of experience as fishers.

	1	naeme suengiouna	
Item	N (%)	Item	N (%)
Location		Age	
Kuala Terengganu	100 (45%)	19 years old and below	1(1%)
Besut	120 (55%)	between 20 and 34 years old	17 (8%)
		between 35 and 60 years old	125 (57%)
Gender		61 years old and above	77 (35%)
Male	220 (100%)		
		Work Experience (Fishers)	
Level of Education		10 years and below	13 (6%)
No formal education	23 (10%)	between 11 and 19 years	31 (14%)
Primary level	132 (60%)	between 20 and 29 years	33 (15%)
Secondary level	62 (28%)	between 30 and 39 years	40 (18%)
University/college	3 (1%)	40 years and above	103 (47%)
Average Monthly Income			
RM 430 and below	5 (2%)		
between RM 431 and	59 (27%)		
RM750			
between RM 751 and	81 (37%)		
RM1500			
RM 1500 and above	75 (34%)		

## Table 2. Respondents' background

# **4.2 Empowerment from the Participation Dimension**

Concerning the level of empowerment from the participation dimension (Table 3), the results indicate that fishers' participation is *sometimes* only (2.7). In detail, fishers are *sometimes* (2.9) involved voluntarily in the development of their community, committed to developing their community as planned (2.9), clear about the needs to develop fishing community (2.8) and able to carry out the tasks assigned to the end (2.8). Concurrently, fishers also *sometimes* give ideas to solve problems faced by other fishers (2.7), together with community members in planning programmes related to community development (2.7) and voice out opinions to improve community development (2.7).

Dortisingtion	Average
Participation	Score*
Involved voluntarily in the development of the community	2.9
Committed to developing the community as planned	2.9
Clear about the needs to develop the fishing community	2.8
Able to carry out the tasks assigned to the end.	2.8
Give ideas to solve problems faced by fishermen	2.7
Together with the community in planning programmes related to community	2.7
development	
Voice out opinions to improve fishing community development plan	2.7
Help to raise awareness among community members about the community	2.6
development plan	
Provide help in implementing the plan for fishing community development	2.6
Monitor community development plan to ensure it runs smoothly	2.5
Evaluate the implementation of any community development programmes	2.4
Cumulative Min	2.7

### Table 3: Empowerment from participation dimension

* Note: Average Score based on scales	1. Never	2. Rarely
	3. Sometimes	4. Often

Fishers *sometimes* help to raise awareness among community members about community development plan (2.6), provide help in implementing the plan for fishing community development (2.6), and monitor community development plan to ensure it runs smoothly (2.5). However, fishers rarely evaluate the implementation of any community development programmes (2.4).

The results of the study show that the level of participation of fishers is only sometimes, and this may suggest that the element of participation is not well-practiced in the community. According to Suharto (2009) and Sulehan et al. (2008), creating a significant division of roles between stakeholders requires active participation among the fishers. Not only that, by participating in the community development programmes, whether directly or indirectly, the fishers will be able to increase the value of their self-potential (Amir Zal, 2014).

Unfortunately, such a positive attitude was not found in the community in this study. Without active participation, community development programmes are prone to fail (Stanford, Wiryawan, Bengen, & Febriamansyah, 2014). Such failures occur due to lack of support by the target group (Wan Mohd Zaifurin et al., 2009) as they feel the programmes are unnecessary for them, and this happens because they do not actively involve at the initial stage of the programmes.

Stanford et al. (2014) also stress that basic facilities for fishing community activities could not help fishers when such facilities are not based on the actual reality of the fishing community's needs. Aldon, Fermin, and Agbayani (2011), add that without the cooperation of the community, the rules formulated in developing them will be ineffective since the rules are lacking of support from the community. On the same note, without active cooperation from the community, identifying the potentials will be an impossible mission. Amir Zal (2012) points out that fishers will be able to develop their potential through the community empowerment processes. In addition, among the efforts or forms to encourage participation is to hold programmes or give the community members option in carrying out activities that are characterized by direct participation played by community members themselves.

#### 4.3 Empowerment from the Self-Reliance Dimension

Apart from the above variable, the respondents were also asked to rate their level of self-reliance. Table 4 shows the level of empowerment from the self-reliance dimension. From the survey, it can be seen that the level of self-reliance among fishers in this study is on the scale of *sometimes*. Despite that, there is a mixture of results in this part of the survey. There are two items that can be seen to be on the scale of *often*, two items on the scale of *sometimes* and four items on the scale of *rarely*. Based on the survey it is found that the fishers are *often* free to determine their lives (3.9), and determine how to work (3.9), and the fishers *sometimes* have the initiative to find other methods to increase their seafood (2.7). One item was found to stand between *rarely* and *sometimes*, which is to self-market seafood (2.5). On the same note, fishers *rarely* determine the price of seafood obtained (2.1), do side work to increase income (2.1), and obtain information related to the program to further improve the skills of fishers (2.1). Fishers also *rarely* do side jobs that are not based on fishing skills in order to increase their income (2.0).

Self-Reliance		Average Score*
Free to determine my life		3.9
I can determine the way I work witho people.	ut being influence by other	3.9
Able to find other methods to increase	seafood production	2.7
Able to market products by myself		2.5
Able to set the price of seafood product	s by myself	2.1
Do extra work in order to increase inco	me	2.1
Able to get information related to emp myself	powerment programmes by	2.1
Doing extra work that is not related income	to fishing skill to increase	2.0
Min Cumulative		2.7
* Note: Average Score based on the	1. Never	2. Rarely
scales	3. Sometimes	4. Often

Table 4:	Empowermen	t from	self-reliance
	r · · · ·		

The results in Table 4 indicate that the fishers' ability to be independent can be described through their efforts in determining the direction of their life. Such an effort can be seen through the methods that they use to increase the source of income without relying too much on the existing traditional methods. Just like other communities, the fishing community also has the capacity to be independent in shaping their community. The ability to be independent should exist in the fishing community. According to Mohamed Shaffril et al. (2013), the self-reliance of the fishing community can be explained through the knowledge of their environment, and the possession of experience in detecting and identifying habitats and types of fishes in the ocean. The experience possessed by the fishing community has directly helped them to increase their resources as fishers, and this happens due to the community empowerment efforts driven by the fishing community at the local level (Zamzani, 2016).

However, the efforts of the fishing community to be independent from the context that does not involve fishing work are scarce. It is found that the concentration of the fishing community only involves activities related to seafood products only. Their focus is only on the production process (finding seafood), and fishers do not have the efforts to sell themselves that is at the marketing (sales) level. This statement is also seconded by Sudarmono (2009) where many

fishing communities will not sell their seafood products themselves where they involve intermediaries most of the time. Such a condition contradicts the suggestion made by Thomas and Pawar (2010) who clearly state that the ability to be independent is closely related to one's own capacity or ability to self-manage available resources. In fact, according to Thomas and Pawar (2010), the concept of self-reliance is related to the survival of the individual. The individual and the community can mobilize and use available resources to invest in a more sustainable life in the future. The roles played by the intermediaries, indirectly, have pejoratively impacted the fishing community, especially the one conducted in this study. This finding also echoes the finding of a study conducted by Mulyila, Matsuoka, and Anraku (2012) in Pohnpei (Micronesia), Mafia (Tanzania) and Guimaras (Philippines), where intermediaries often made much profit in marketing seafood compared to the fishers themselves.

Issues related to the ability to be independent have been discussed in studies done by Sudarmono (2009) and Wan Mohd Zaifurin et al. (2009), where fishers do not have the initiative to market their seafood products, and fishers continue to rely on intermediaries in marketing their seafood products, resulting to low income on the fishermen's side. Ironically, despite being taken advantage by other parties, the fishing community in this study shows a total comfort with what they have already had, and no efforts have been made to reduce their dependence on others

# 4.4 The Relationship Experience with Empowerment Community and Formal Education Level as Control Variable

Table 5 shows the results of correlation analysis between the level of education and work experience of fishers. To find the difference between the variables, this study used the ANCOVA test, and the results of the analysis found significant relationship between work experience possessed by the respondents on the fishers' empowerment (F = 2.650, p = 0.034). On the contrary, there are significant differences found between education level possessed by the fishers and their empowerment (F = 10.422, p = 0.001). The results also show that there was a significant effect of education level (control variable) on empowerment. The results show that by controlling the level of education, the work experience will affect the empowerment of the fishing community. Therefore, experience and the level of education of fishermen are key factors to the empowerment community.

Sources	Sum of	Degrees of	Min of	F Value	Sig
	Squares	Freedom (df)	Squares		~-8
Corrected Model	2674.882 <sup>a</sup>	5	534.976	5.792	.000
Intercept	13140.372	1	13140.372	142.254	.000
Level of Education	962.722	1	962.722	10.422	.001
Work Experience	979.200	4	244.800	2.650	.034
Error	19767.749	214	92.373		
Total	436045.000	220			
Corrected Total	22442.632	219			

 Table 5. Relationship experience with empowerment community and formal education level as

 control variable

a. R Squared= .119 (Adjusted R Squared = .099)

These results reflect a similar observation as found in other studies. Studies conducted by Ramli et al. (2019) show that although more than half of their respondents have had many years of experience as fishermen, they are still unable to be independent and fully participate in community empowerment programmes. Therefore, to enable the empowerment efforts in this community, the level of education among fishers needs to be improved. Based on the findings in this study, the fishing community still does not have a good community empowerment development level. This is because the role of formal education in improving the fishing community's financial status is still lacking in this community. These results also highlight that the fishers' work experience, although valued dearly, has little influence on improving their lifestyle and economy.

Through this analysis, there is no doubt that education is the main factor that can influence the fishing community's empowerment. However, in reality, the fishing community often possesses a limited level of education. According to Ali Puteh and Sa'at (2012), the fishing community is often marginalized, not because of their settlement area, but mostly because of their education level. The location factor, whether the presence of the community in the rural or urban areas, is not the reason why this community continues to be plagued by various problems. All this happens because of the education level that they have. Therefore, this community needs to be made realized that the process of empowerment can only occur when they possess knowledge from the formal educational system (Paim, 2014). Only by achieving this will the community participate in the empowerment programmes seriously.

The importance of education in human capital development has also been explained by Sa'at and Ismail (2014). Their study explicates that the development of the fishing community needs to take into account the human capital (human) point of view and this would include the roles of education in reducing the impact of the backward circle. According to Bene and Friend (2011), education can help fishers to adapt themselves in their local community. Education also helps to increase their source of income and subsequently help to improve the poverty rate. Nasibhul Janah and Subroto (2019), through their study among the community in East Java, suggest that a high standard of education can reduce a community's poverty rate directly. Their study also shows the positive correlation between the source of income and the level of education.

Therefore, in order to empower the community in this study, there is a need to shift their reliance over their experience to the formal education offered by the authority. It is important to understand that education not only involves formal education but also includes the construction of educational capacity with added value in terms of knowledge and skills for the fishing community. The definition of education should not be capped at schools and institutions. Rather, it should be viewed as a system made up of various components: educators, participants, educational purposes, educational tools, and educational areas (Saat, 2015). Achieving the objectives of any development programmes will not be a reality if participants' level of education is too low. In such cases, capacity building programmes that can promote nation building are very much needed (Hussin, Md. Yasir, Hossin, & Kunjuran, 2015). Formal education is the basis of national development planning, and it is the catalyst in building human potential for a better life (Saat, 2015; Hasmori et al., 2011). To sum, experience alone is not sufficient to increase the community's level of empowerment. This is evident when the fishing community in this study is incapable of increasing their source of income, even though they have been in this job for many years.

#### 5.0 CONCLUSION, IMPLICATIONS AND SUGGESTIONS

In conclusion, the fishing community in this study shows that they have different levels of education, with most fishers have more than 40 years of experience at sea. Interestingly, the empowerment of the fishing community in this study is not influenced by the number of years they have spent as fishers. On the other hand, their level of education plays a pertinent influence on their empowerment. Such a finding clearly shows that experience is not only a major factor in

increasing the empowerment of the fishing community. Attention to educational factors can have positive implications for improving their lives as a whole.

This study contributes to our understanding that it is undeniably true that formal and informal education play an integral role in empowering the fishing community, where through education, fishers are more participative in their community and exhibit autonomy towards their work. Therefore, participation and self-reliance are pertinent empowerment processes in helping to develop the community to identify issues, implement plans, and evaluate and monitor the progress. Fishing communities that involve in planning and implementing the decisions will bring better changes to their communities. To achieve this, the fishing community should increase their self-reliance by following formal and informal skill-training programmes such as courses in producing seafood or non-seafood products.

Educational efforts that involve knowledge and skill transfer, especially related to current technologies, can positively impact them. Concurrently, the study also suggests that the responsible agencies for the fishing community take a more active part in promoting formal education among fishers' children. The engagement in formal education among the younger generation is important in changing the future of the community, especially in scaffolding them towards becoming professional fishers like those in other developed countries. This action is important because professional fishers tend to manage their career as a fisher systematically and often keep abreast with the rapidly changing conditions that are bound to occur from time to time.

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