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ATTITUDINAL FACTORS OF FISHERMEN TRAPPED IN THE B40 CATEGORY: AN EMPIRICAL STUDY

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ABSTRACT

The fishing industry plays an important role in global economic development. However, its importance is not in line with the well-being of key players in the fishing industry itself, especially Zone A fishermen who are mostly in the Bottom 40% (B40) of household income category. Although the government has emphasised this issue by providing various programmes and funds that are suitable for fishing activities by Zone A fishermen, there are still some Zone A fishermen who are at the poverty level. Thus, the objective of this article investigated the causes of low well-being among B40 fishermen from the aspect of the individual. The result of the study combined two data sources, namely primary data and secondary data. A qualitative approach was conducted by interviewing 23 informants consisting of Zone A fishermen and directors involved in fishing activities. This study was conducted in three states, namely Perlis, Terengganu, and Melaka. The results of the interviews were transcribed in the form of verbatim data, that is, word extracts from informants. Verbatim data were analysed using thematic analysis involving the process of coding, categorization, and finally theme production to answer the research questions. The findings of the study found that individual factors do affect the well-being of B40 fishermen. Individual factors can be classified into two, namely internal and external factors. Individual factors are internally divided into attitudes, interests, knowledge of fishermen, experience, skills, self-motivation, and also creativity. Meanwhile, external factors are divided into alternative income, family support, and also hereditary fishermen. Hopefully, the important findings in this study can assist to improve the economic standing of the fishing community. At the same time, support and encouragement from families, communities, and the government is important to change the attitude of fishermen to get a better life and get out of poverty in the B40 community. Furthermore, to get an overview of the well-being of fishermen in Malaysia, it is proposed that future studies can increase the number of states and informants, and use a mix method approach or quantitative methods to further provide more finding for the betterment of the fishing communities.

Keywords: B40 fishermen, fishing industry, individual factor, well-being of life, Zone A fishermen.

INTRODUCTION

The agricultural sector plays an important role in the Malaysian's economic growth. This sector contributed as much as 2.4% to the Gross Domestic Product for the period of the 10th Malaysia Plan and is expected to increase to 3.5% in the 11th Malaysia Plan (Economic Planning Unit, 2015). This positive growth was also contributed by the fisheries sub-sector. In 2020, the fisheries sub-sector was observed to have produced 1.79 million ton metric food fish, 227.9 million ornamental fish, and 41.9 million aquatic plants worth RM13.84 billion. This shows that, the value of the contribution of the fishing industry is as much as RM13.84 billion in 2020 apart from the national agriculture sector. Thus, based on this data, the fisheries sector is directly seen as an important sector in economic growth, especially in the supply of national food. However, the fishing sector, which is largely pioneered by B40 fishermen, has low income and faces the problem of poverty.

The poor can be classified as the lowest 40 percent of household income (B40) in Malaysia. The fishing community mostly belongs to the B40, but their contribution to the country cannot be denied. This can be seen through the National Agro-Food Policy which has been enacted focusing on ensuring sufficient national food supply. The Ministry of Agriculture and Agro-based Industry focuses on national food security so that the people get sufficient food. In other words, the fishing community directly ensures the country's food security to be sufficient, especially marine-based products. However, the well-being of the fishing community is still low even though their contribution is very important to the country.

In addition, like other developing countries, Malaysia has also developed many programmes to eradicate poverty every year, including through the New Economic Policy (1971 to 1990) and the latest National Transformation Policy (2011 to 2020). As a result, the poverty alleviation programme in Malaysia is said to be successful. This is evidenced through the continuous reduction of the poverty rate from 8.5 percent in 1999 to 5.7 percent in 2004, and further 0.6 percent in 2014 (Economic Planning Unit, 2015). However, the country's poverty level still needs to be improved in order to obtain good overall well-being of the people by achieving zero poverty.

LITERATURE REVIEW

The poverty rate is one of the most important characteristics to show the level of backwardness of the population in an area. Measuring the poverty line and monitoring the poverty rate trend is useful information for decision makers to plan and implement strategies to deal with problems related to human development, such as education, health, job opportunities, and other issues. The poverty rate is measured using a specific poverty line to describe the economic and social conditions of a place. Therefore, during the 11th Malaysia Plan, the government aimed to increase the average income of B40 households from approximately RM2,500 per month in 2014 to more than RM5,000 per month in 2020. According to Che Mat and Hakim (2011), poverty in rural areas is higher than in urban areas due to rural economic resources involving agricultural and fishing activities.

The fishing community is a coastal community referring to those who live in seaside areas and their economic resources depend directly and indirectly on the sea (Wahab, Kurniawan, & Wahab, 2014; Sa'at, 2011). Therefore, the government is taking extensive efforts including bridging the gap in education and skill achievement as well as increasing productivity for the well-being of people's lives. There are many studies done on the poor, especially those who belong to the fishing community. A study by Zaimah et al. (2015) was performed to measure the level of well-being of fishermen and a comparison was made between the level of well-being of coastal fishermen and deep-sea fishermen in Sedili. The results of the study stated that the average income of respondents from working as fishermen was RM713.00 per month. Although their income is low, the respondents' perception of their level of well-being is good with the average respondent being satisfied and very satisfied with their well-being.

Following that, Ibrahim and Anuar (2016) suggested the development of entrepreneurship in the fishing community to improve this group involved in non-agricultural activities, especially in the seafood processing industry. Among other examples of non-agricultural activities are seafood processing,

homestays, and downstream activity enterprises (Ibrahim & Anuar, 2016). These activities are also supported by other studies such as by Haggblade et al. (2010), that the non-agricultural economy should be encouraged because when the economy grows it will lead to increased income and job opportunities in rural areas will multiply. However, these non-agricultural activities will not be successfully implemented if there is less cooperation from the fishermen themselves. Thus, the findings of Ibrahim and Anuar's (2016) study on 200 coastal fishermen in Kuala Kedah showed that the determinants of fishermen's involvement such as individual characteristics (age, gender, education, and experience) and household characteristics (number of allowances, expenses on income, spouse's income, and children's contribution) has a direct impact on non-agricultural activities.

Fishing community poverty can be monitored based on one of the basic measures of life, which is the group's own attitude to change. According to Chamhuri et al. (2012), poverty is said to be often associated with poverty culture and poverty attitude, which demands a change to a positive attitude in order to overcome poverty. Attitude is the interpretation of behaviour and tendency in acting. This statement is also supported by Krech et al. (1962) who stated that attitude is part of behaviour. The concept of an attitude of being satisfied with what is owned causes fishermen to be less interested in changing towards self-improvement (Mohd Shariff et al., 2006) and thus fail to upgrade the fishing equipment they own to become more productive and generate higher income.

Moreover, this negative attitude needs to be removed among the fishermen by giving them the appropriate exposure to change and try to improve their quality and standard of living. This is because, attitudes may change for the better or worse, according to time and situation, as a result of interaction with the external environment (Chaiken & Stangor, 1987; Rosenberg, 1960; Rosenberg et al., 1960). According to Allport (1935), attitude is a state of mind that shows a willingness to manage through experience in a way that can control or modify individual behaviour to all related objects and events. Therefore, negative attitudes and practices should be changed in order to guarantee well-being and improve living standards of the B40 fishing community.

A study by Yusuf (1991) involving 400 fishermen in Kemaman, Terengganu, found that the attitude of self-employed fishermen often underlines poverty as a factor of luck. This point is also supported by Khir et al. (2011), and Rahman (2002) who stated that an attitude of too much faith in fate can cause a person to put in less effort and quickly admit defeat when faced with an obstacle. Furthermore, Yusof (1997) in his study also found that the poverty factor in B40 community is caused by a negative attitude that is totally believing in fate, combined with and lack of motivation to exit from the cycle of poverty. Therefore, the attitude of submission and belief in fate, dependence and not wanting to be independent is very synonymous with the fishing community which find it difficult to get out of the poverty cycle. These negative attitudes need to be removed from the B40 fishing community so that efforts toward development can be carried out and have a positive impact on the changes and well-being of the B40 fishing community.

RESEARCH METHODOLOGY

Qualitative design used in this study was phenomenology, involving various case studies. The phenomenological qualitative study is to explore the causes of the low level of well-being of the B40 fishing community. In detail, this study is in the form of a multiple case study or known as a study of multiple field sites. According to Merriam (1998), the study of various cases involving various places of the study field and the data can further increase the external validity or generalization of the findings. Furthermore, evidence obtained from multiple case studies can be measured robustly and reliably (Baxter & Jack, 2008). The data collection method also uses various sources including documents, previous records, interviews, and observations, all of which are form the sources for data triangulation.

The selection of informants was done using purposive sampling and snowball sampling. Purposive sampling is according to the main criteria that have been set, namely; (i) Malaysian citizens; (ii) native and active fishermen (receive subsistence allowance); and (iii) have experience as a Zone A fisherman

for more than two years. Researchers have used snowball sampling to obtain additional informants who fulfil the same criteria and have been introduced by previous informants. This informant sample was obtained previously and while the researcher was at the study locations.

A total of 23 informants were interviewed in depth in three states, namely Perlis in Kuala Perlis district (six respondents), Terengganu in Dungun district (five respondents), and Melaka in Melaka Tengah district (seven respondents). Meanwhile, the other five informants were representatives from LKIM, the Department of Fisheries and Fishermen's Associations which are located in all the three states. This informant interview takes into account (i) their cooperation and willingness to be interviewed and; (ii) reaching a saturation point where the informant gives the same or repeated answers as the previous informant.

The data were analysed using a qualitative method procedure. In particular, the results of the interviews were transcribed in the form of verbatim data, which are the actual words recorded from the informant during interview. Next, verbatim data were analysed using thematic analysis which involves the process of coding, categorization, and finally producing themes to answer the research questions. In order to analyse qualitative data, there is no specific way or specific technique to extract themes, as long as the method used achieves the purpose of the study and answers the research questions that need to be answered. Taking the view of Bogdan and Biklen (2007), qualitative data analysis is a systematic process to find and organise transcripts of interviews, field studies, and other documents that can improve one's own understanding as well as the understanding of others. This analysis includes working with data, managing data, dividing data into specific units, synthesizing data, examining patterns and introducing what is important and what can be learned from the data and determining what can be communicated to the public. This study chose to use a thematic method to manage the data. The thematic method is one of the appropriate methods to analyse and classify themes (Braun & Clarke 2006) related to the data of this study. It can describe data in detail that has various research subjects through the interpretation of research (Alhojailan 2012; Maguire & Delahunt 2017).

DATA ANALYSIS

Based on the analysis of the findings of the study, the authors concluded that the well-being of life is influenced by the attribute factors of fishermen which can be classified into two, namely internal and external factors. Individual attributes are internally divided into attitudes, interests, fishing knowledge, experience, skills, self-motivation, and creativity. This finding is supported by the following interview excerpts:

❖ ...Interest... Interest in being a fisherman...No pressure...I don't feel tension...It's interest.

Fisherman A

❖ ...that time of work, it is with the soul. Got in touch with the soul of a fisherman...after that... daily income...not tied down...doesn't like being tied down...likes to work alone.

Fisherman B

❖ ...this interest...it's really an interest...the whole family is a fisherman.

Fisherman C

Meanwhile for the external factors, it is divided into alternative income, family support, and hereditary fishermen. The results of this study found that there are several elements that need to be improved such as raising the interest and motivation of fishermen, setting clear goals by the government, clarifying the government's expectations, and providing a good monitoring system. Thus, the following interview excerpts show that there are some fishermen who do not support the program run by the government because it is not in line with the needs and time of the fishermen themselves.

❖ ...I'm not interested in that kind of program...I don't join...I don't join. I didn't have a time... Because the boat repair program, sometimes I have to go for two or three days.

Fisherman D

A study by Keke (2008) discussed several methods to arouse interest and motivation such as attracting attention and setting clear goals. The government needs to draw the attention of fishermen to be proactive and positive in their careers. The second step is to set clear goals. A clear objective can be done by giving a strong reason why the fisherman should do the action. Next is to explain the government's expectations for the fishermen.

Having knowledge allows a person to shed and avoid negative attitudes. Darwis Darmawan and Siti Fadjarani (2016) stated that if a person lacks knowledge about something then it will lead to a negative attitude and will bring problems to others. Furthermore, Othman, Latip, and Sa'at (2019) asserted that the factors of wanting to change and wanting to try new things bring results when they manage to dominate the fishing industry.

In addition, individuals who have a good attitude, especially when linked together with knowledge, skills and motivation, will be successful in their careers. For example, the habit of managing time well, working diligently, not giving up easily, maintaining cleanliness, implementing systematic work methods, having respect, showing honesty, and being trustworthy will lead to good work productivity, an atmosphere of friendly social relations, mutual trust, and the spirit of cooperation. Thus, the findings of the study showed the importance of attitude which attributes to change and the well-being of B40 fishermen for the better. Below are excerpts from the interviews which support this notion.

❖ ...fisherman's attitude. He has to work hard, be diligent. Even if he is not smart, he has to be diligent. He is diligent, he can go out. Even in the monsoon season, he still sits and monitors the weather so that he can go to sea, he goes to join the big boat. So you guys. I see that attitude is good. He doesn't just sit at home. Just advanced, let go of the B40. Below the line of RM3000 only.

LKIM Director

❖ Where are the poor fishermen? Fishermen are not poor. These poor people are lazy people. Poor because he is lazy. Lazy search, lazy effort. Actually, so this fisherman is not poor? Poor doc. There is also a car behind. He's poor, just a bicycle. If it's a motorcycle, a car... astro has an astro house? There is. It's rich. Like astro is there. Poor dock, can find food. If you are diligent, you can do a little.

Fisherman E

CONCLUSION

The fishing industry is one of the pillars that develop the Malaysian economy and improve the standard of living of the fishermen themselves. The researchers concluded that the well-being of fishermen is influenced by two types of factors: internal and external, based on their analysis of the findings. Individual attributes are internally divided into attitudes, interests, fishing knowledge, experience, skills, self-motivation and creativity, while for the external factors, it is divided into alternative income, family support, and hereditary fishermen. A person's attitude can influence the actions that will be taken especially in the development of personal and family well-being. Individuals who have a good attitude, especially when linked together with knowledge, skills, and motivation could lead to success in their career. For example, the habit of managing time well, working diligently, not giving up easily, maintaining cleanliness, systematic work methods, respect, honesty and trust will lead to good work productivity, an atmosphere of friendly social relations, mutual trust and the spirit of cooperation. This is because having knowledge allows a person to shed and avoid negative attitudes. This is as Darwis Darmawan and Siti Fadjarani (2016) stated that if a person lacks knowledge about something then it will

lead to a negative attitude and will bring problems to others (Darwis Darmawan & Siti Fadjarajani, 2016). In addition, the attitude of not giving up and holding fast to the sustenance determined by Allah SWT as explained through His word which means:

“...Indeed, Allah provides sustenance to whom He wills without counting.”

(Surah Ali ‘Imran, Verse 37)

Therefore, every Muslim fisherman needs to be aware of the fact that the sustenance received comes from Allah SWT. As servants of Allah SWT, we must strive to obtain sustenance, and depend entirely on the provisions of Allah SWT. Furthermore, the words of Allah SWT in the Qur'an mean:

“And there is nothing among the creatures that moves on the earth, but Allah is the one who sustains its sustenance and knows where it lives and where it returns. Everything is written in the Book (Lauh Mahfuz) that is clear (to the angels concerned).”

(Surah Hud, Verse 6)

RECOMMENDATIONS, LIMITATIONS AND FUTURE STUDY

This study has several limitations. Firstly, in terms of the number of respondents, it was only done to 23 informants and secondly, in terms of the number of areas where it was only done in three states with selected districts, namely in the districts of Kuala Perlis, Dungun, and Melaka Tengah. To gain a clearer and more comprehensive understanding of the well-being of B40 fishermen in Malaysia, future studies should expand to the West Coast and the Sabah/Sarawak region. It is recommended that these studies include a larger number of states and informants, and employ a mixed-method or quantitative approach.

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REFERENCE

Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. *West East Journal of Social Sciences*, 1(1), 39-47.

Allport, G. W. (1935). Attitudes. In C. Murchison (Ed.), *Handbook of Social Psychology* (pp. 798–884). Worcester, MA: Clark University Press.

Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544-556.

Bogdan, R., & Biklen. (2007). *Qualitative research for education: An introduction to theories and methods*. California: Pearson.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>

Chaiken, S., & Stangor, C. (1987). Attitudes and attitude change. *Annual Review of Psychology*, 38(1), 575–630. <https://doi.org/10.1146/annurev.ps.38.020187.003043>

Chamhuri, N. H., Karim, H. A., & Hamdan, H. (2012). Conceptual framework of urban poverty reduction: A review of literature. *Procedia-Social and Behavioral Sciences*, 68, 804-814.

Che Mat, S. H., & Hakim, R. A. (2011) Jangka masa keluar daripada kepompong kemiskinan dan ketermiskinan: Kajian kes di Kedah Darul Aman [Time to get out of the cocoon of poverty and destitution: A case study in Kedah Darul Aman]. *International Journal of Management Studies*, 18(2), 217–236.

Darwisan Darmawan & Siti Fadjarajani. (2016). Hubungan antara pengetahuan dan sikap pelestarian lingkungan dengan perilaku wisatawan dalam menjaga kebersihan lingkungan [The relationship between knowledge and attitudes of environmental conservation with tourists' behavior in keeping the environment clean]. *Jurnal Geografi*. Volume 4(1).

Economic Planning Unit (2015). 11th Malaysia Plan: 2016-2020. *Kuala Lumpur: Percetakan Nasional Malaysia Berhad*.

Hagblade, S., Hazell, P., & Reardon, T. (2010). The rural nonfarm economy and the rural poor. *World Development*, 38(10), 1429–1441. <https://doi.org/10.1016/j.worlddev.2009.06.008>

Ibrahim, A. Z., & Anuar, A. R. (2016). Penentu keterlibatan nelayan pesisir pantai dalam aktiviti bukan pertanian di Kuala Kedah, Kedah [Determinants of coastal fishermen's involvement in non-agricultural activities in Kuala Kedah, Kedah]. *Malaysia Journal of Society and Space*, 12(14), 1–9.

Keke, T. Aritonang. (2008). Minat dan motivasi dalam meningkatkan hasil belajar siswa [Interest and motivation in improving student learning outcomes]. *Jurnal Pendidikan Penabur*, 10, 7–16.

Khir, A. M., Hamsan, H. H., & Redzuan, M. (2011). Sistem nilai dan sikap komuniti Melayu miskin [The value system and attitude of the poor Malay community]. *Fakulti Ekologi Manusia, Universiti Putra Malaysia*.

Krech, D., Ballachey, E. L., & Crutchfield, R. S. (1962). *Individual in Society*. McGraw-Hill.

Merriam, S. B. (1998). *Qualitative research and case study application in education*. Revised and expanded from *Case Study Research in Education*. Jossey-Bass.

Mohd Shariff, M. N., Ali, J., & A Rahman, B. (2006). *Pembangunan usahawan di sektor perikanan Malaysia* [Development of entrepreneurs in the Malaysian fisheries sector]. Universiti Utara Malaysia.

Othman, N., Latip, A. R. A., & Sa'at. N. H. (2019). Fasa peralihan nelayan laut dalam serta kesan ke atas ekonomi, sosiobudaya dan persekitaran [The transition phase of deep-sea fishing and the impact on the economy, socio-culture and environment]. *Akademika*, 89(2), 169–185.

Rahman. S. A. (2002). *Revolusi mental* [Mental revolution] (1st ed.). Utusan Publications and Distributors Sdn. Bhd.

Rosenberg, M. J. (1960). Cognitive, affective, and behavioral components of attitudes. In *Attitude organization and change* (pp. 1–28). Yale University Press.

Rosenberg, M. J., Hovland, C. I., McGuire, W. J., Abelson, R. P., & Brehm, J. W. (1960). *Attitude organization and change: An analysis of consistency among attitude components*. (Yale Studies in Attitude and Communication), Vol. III. Yale University Press.

Sa'at, N. H. (2011). Mobiliti sosial dalam kalangan komuniti pesisir pantai: Kajian kes di Kuala Terengganu [Social mobility among coastal communities: A case study in Kuala Terengganu]. *Kajian Malaysia*, 29, 95–123.

Wahab, Z. A., Kurniawan, Y., & Wahab, H. A. (2014). Pengurusan masalah sosial yang berlaku dalam komuniti pesisir di Kelantan [Management of social problems that occur in coastal communities in Kelantan]. *Jurnal Pengajian Melayu*, 24, 1–15.

Yusof, W. Z. W. (1997). *Kemiskinan dan pembangunan: Satu kajian kes terhadap setinggan di Kuala Lumpur* [Poverty and development: A case study of slums in Kuala Lumpur]. (Master's thesis). Fakulti Ekonomi, Universiti Kebangsaan Malaysia.

Yusuf, M. H. (1991). Atribusi kemiskinan: Satu kajian di kalangan nelayan [Attribution of poverty: A study among fishermen]. *Jurnal Psikologi Malaysia*, 7, 3–15.

Zaimah, R., Saad, S., Azima, A. M., Mohd Yusof Hussain, M. Y., Samsudin, M., Omar, M., & Yussof, I. (2015). Kesejahteraan subjektif: Kajian kes nelayan di Sedili, Kota Tinggi, Johor [Subjective well-being: A case study of fishermen in Sedili, Kota Tinggi, Johor]. *Malaysia Journal of Society and Space*, 11(2), 87–94.