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Youth perception and effectiveness of the Stimulate Programme in the Malaysian Fisheries Industry

(Keberkesanan dan persepsi belia terhadap Program Rangsangan Kerajaan dalam Industri Perikanan Negara)

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Keywords: youth, perception, program effectiveness, fisheries industry, SERVQUAL model

Abstract

The involvement of youth in the fisheries industry is vital towards securing nation-building for the future. The country needs young people to upgrade, modernise and increase the number of skilled workers in the agriculture sector, especially in the fisheries industry. In this regard, government agencies such as the Fisheries Development Authority of Malaysia (LKIM) and the Department of Fisheries (DOF) have implemented various activities to develop and stimulate the socio-economy of fishermen. Six selected programmes are covered in the present study: Living Allowance or *Elaun Sara Hidup* (ESH), Capture Incentive or *Insentif Hasil Tangkapan* (IHT), Natural Disaster Allowance, Housing Allowance, Diesel Subsidies and Petrol Subsidies. This study aims to measure these programmes' effectiveness and young fishermen's perception of the management of these programmes. This study used a quantitative method and primary data were gathered using a questionnaire. The stratified random sampling technique was employed to select the study's respondents, consisting of 476 (n) Malaysian fishermen. From this sample, the subsample (n_1) in which the respondents were between 15 – 40 years old was chosen and analysed using descriptive analysis, factor analysis and the SERVQUAL model. The findings reported a total mean score of 4.22 out of 5 points for the effectiveness of programme management, indicating the young fishermen's agreement regarding the effectiveness of the programmes. Meanwhile, the SERVQUAL model revealed that the young fishermen's perceptions of the management of these programmes are based on responsiveness, empathy, assurance and tangibles. This study also captured the issues and challenges faced by the young fishermen involved in this industry, where they were affected by factors such as difficulties to obtain technical assistance and a lack of support. These aspects might have contributed to the lack of youth involvement in the fisheries industry. The results of this study suggest that there are vast opportunities to improve the management of these programmes and that all parties should support the government's efforts to encourage the involvement of youths, especially highly educated youths, in the fisheries sector in developing this industry.

Introduction

According to the National Agrofood Policy (NAP, 2001 – 2020), the projected landing of marine fisheries in Malaysia was expected to increase from 1.32 million tonnes in 2010 to 1.76 million tonnes in 2020 at a growth rate of 2.9% per annum. Coastal fisheries fishing was expected to contribute 65% of the total marine catch compared to 35% by deep-sea fisheries by 2020. A recent statistic

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provided by the Department of Fisheries Malaysia (DOF 2020) shows that in 2018, almost 1,452,862 metric tonnes of marine fishes were landed by Malaysian fishermen. Although the amount is relatively small compared to those of other countries, it is still important to the socio-economic growth of the people. Given that fish is an essential source of protein for the locals, it must be handled sustainably. Further, the demand for fish in the country is expected to increase in line with population growth. This demand needs to be matched with a sufficient supply. Coastal fisheries will be restructured to prevent degradation by restructuring fisheries zoning and encouraging the involvement of the fishing community in managing fisheries resources.

Youth participation in fisheries

The global youth population is expected to increase to 1.3 billion in 2050 (Arulingam et al. 2019). Youth can be considered as the transition period from childhood to adulthood, comprising a stage of sexual maturation and reaching social and economic independence from a parent or guardian (Leavy and Smith 2010; Pyburn et al. 2015). According to Pyburn et al. (2015), there are several indicators for determining youth, which can be age, education, gender, marital status and others. Therefore, the classification of youth varies depending on the context. This study adopted the definition by the Ministry of Youth and Sports Malaysia, which classifies youth as those from the age of 15 – 40 years old (Yassin et al. 2018; Abu Samah et al. 2019). Based on the available data from the Department of Statistics (DOSM 2019), about 14 million out of Malaysia's 32.4 million population are between 15 and 40 years old.

The statistics released by LKIM in 2020 show the breakdown of fishermen according to age. Of the 51,608 fishermen in Malaysia, 14.7% were those aged 65 years and above. Those between the ages of 41 and 64 years formed the largest group with 37.4%. Meanwhile, youth between the ages of 15 – 40 made up only 24.9% of the total fishermen population. The local studies by Omar et al. (2012), Shaffril et al. (2013), and Mazuki et al. (2013) also consistently showed that nearly 30% of the fishermen in their studies were young fishermen.

Malaysia's fishing industry lacks youth involvement. Almost 70% of the fishermen in the country are of the older generation as the work has been perceived as an older man's work for years and the stigma has been preserved until today. The participation of young people in fisheries and aquaculture industries has been limited in recent decades, which can be explained by the scarce prospects and job opportunities in these industries. The limited youth engagement can also be attributed to structural and policy disparities or malfunctioning. These flaws have led to young people's reluctance to participate actively in the industry.

The Department of Statistics Malaysia (DOSM 2019) reported that for the year 2018, two-thirds (60.8%) of the total number of migrants in the country were intra-state, where 19.8% were migrants from rural to urban areas and only 6.3% were from urban to rural areas. The migration from rural to urban areas could be due to job opportunity or career development (24.3%) and environmental factors (22.4%). In addition, the statistics show that youth have little interest to venture into the fisheries industry and that most fishermen are among the elderly, which could lead this industry to a labour crisis. Indeed, the number of fishermen aged 65 years and above has increased by more than 100% in 10 years. In contrast, the proportion of young fishermen aged 15 – 40 years has decreased from 26.5% to 24.9% within the same period (LKIM 2020). One of the escalating phenomena is the increasing involvement of foreign fishermen in the fisheries industries, which has led to the continued dependence of the Malaysian fisheries sector on foreign fishermen (LKIM 2020).

Table 1. Selected programmes for the fishermen community in Malaysia

Programs	Background	Requirement	Incentive rate
Fishermen's Living Allowance (ESH)	First introduced in 2008 to help ease the burden of economic pressures of fishermen due to the rising cost of living	i. Malaysian citizen ii. Fishermen who are registered with the Department of Fisheries Malaysia or the Department of Fisheries Sabah and have a Fishermen ID card and has a valid vessel registered by Department of Fisheries iii. Employees to vessel owners owned by authorised individuals or companies	Cash of RM250 (January 2020)
Capture Incentive (*Insentif Hasil Tangkapan*, IHT)	First introduced in 2008 with the objective of providing rewards to fishermen from fish catch with Cash Payment	i. The owner of a vessel issued by the Malaysian Fisheries Department or the Sabah State Marine Department, individually or by the company ii. Have a smart e-diesel or e-petrol card issued by LKIM iii. Declaring the catch of fish to LKIM through the e-Declaration system effective from 1 June 2008 iv. Diesel type vessel that landed at selected LKIM jetty	Cash payment of RM0.10 for 1 kg catch
Natural Disaster Allowance	Introduced on 16 January 2009 and aims to provide assistance to fishermen to ease the burden when disaster occur Examples: Injuries, disabilities, death, damage to homes and fishing equipment caused by natural disasters such as flood. Hurricanes, tsunami, landslides/erosion, earthquake	i. Fishermen who are registered with the Department of Fisheries Malaysia or the Department of Fisheries Sabah and have a fishing card, or; ii. Fishermen with e-Diesel card and e-Petrol card, or; iii. Fishermen who are members of the Area Fishermen Association	

(cont)

Table 1. *(Cont)*

Programs	Background	Requirement	Incentive rate
Housing Allowance	There are three categories of Fishermen's Housing allowance, namely Home renovation, Building a new house and Fisherman resettlement. It aims to address the issues of increasing cost of living to ensure the fishermen can enjoy a better and more comfortable quality of life	i. Repairing existing fishing houses at a maximum cost of RM10,000 per house in Peninsular Malaysia and RM12,000 per house in Sabah, Sarawak and WP Labuan ii. Build new houses on fishermen's land at a maximum cost of RM40,000 each in Peninsular Malaysia and RM50,000 each in Sabah, Sarawak and WP. Labuan iii. The Federal Government provides for the construction of a maximum of 300 units in each location. The maximum cost is RM40,000 per house in Peninsular Malaysia and RM50,000 per house in Sabah, Sarawak and WP. Labuan	
Diesel and Petrol Subsidies	The Diesel and Petrol Oil Subsidy Scheme started in 2006 to cover a part of the fishing operating costs incurred by fishermen as a result of rising oil prices in the market	i. Malaysian citizen ii. Have a valid fishing vessel license issued by the Malaysian Fisheries Department iii. Have a valid fishing vessel license issued by the Sabah Marine Department or Sabah State Ports and Wharfs as well as a Fishing License from the Sabah Fisheries Department	In 2020, the approved subsidised diesel quota is 60 million liters per month at a rate of RM1.65 per liter while for petrol subsidies the subsidised price rate is set at RM1.65 per liter

Source: Fisheries Development Authority of Malaysia (LKIM 2020)

Government programmes to improve fishermen's livelihood and socio-economy

Through the Department of Fisheries (DOF) and the Fisheries Development Authority of Malaysia (LKIM), the government has introduced many initiatives and programmes that aim to improve the socio-economy of fishermen in Malaysia. The existing programmes assistance and incentives set up by the government are focusing more on improving the livelihood and socio-economic aspect of fishermen in general (LKIM 2020). Even after more than 10 years of implementation, research on the effectiveness of these programmes has been very limited, especially regarding young fishermen in Malaysia. Moreover, in order to fully support and encourage youth engagement in this industry, it is important to understand the issues and challenges faced by young fishermen that hinder their participation. For the same reason, the government needs to restructure the programmes to make them more youth-friendly. Therefore, this paper aims to measure the effectiveness of these programmes and evaluate the level of satisfaction with the overall government programmes, assistance, subsidies and incentives.

This study also aims to examine the problems faced by young fishermen and their perceptions of these selected programmes. Today's younger generation shoulders the responsibility of ensuring the survival of the nation in the future. Serious attention needs to be given to this generation as they are the treasures and hopes of the nation that will help the country's leadership. They will be the human

resources for the country's development, industry, trade and economy. This group will live as members of society with highly developed skills as well as the authority to translate and realise the goals of the country.

Materials and method

This study used primary data obtained via a field survey conducted on 467 (n) respondents consisting of fishermen who were members of 25 fishermen associations (PNK) across Malaysia. The respondents were chosen using the stratified random sampling method. Of the total respondents, $n_1 = 71$ young fishermen were selected as the subsample. Young fishermen within this study refer to fishermen aged between 15 and 40 years old. A questionnaire was used to collect the data needed for this study.

Quantitative analysis of the data was performed using the Statistical Package for Social Sciences (SPSS) version 23. In achieving the objectives of this study, two types of analysis were conducted, namely, descriptive analysis and factor analysis with the application of the SERVQUAL model.

Descriptive analysis

The descriptive statistical method was used for preliminary analysis to describe the basic features of the data by providing simple summaries about the data as well as to determine the demographic profile of the respondents.

Exploratory factor analysis

Exploratory factor analysis was performed to identify, reduce and organise a large number of questionnaire items into specific classes of variables (Chua Yan Piaw 2014). The reliability test should be performed first to identify the items that are reliable. A Cronbach's alpha value that exceeds .6 indicates that the items are highly reliable and can be analysed using the factor analysis method.

Bartlett's and Kaiser-Meyer-Olkin (KMO) tests were then used to determine whether the correlations among the items were adequate to perform the factor analysis and to detect multicollinearity among the items. A p-value <0.05 in Bartlett's test indicates that the items are adequate and KMO >0.5 indicates the items are fit for factor analysis and there is no serious multicollinearity problem.

The SERVQUAL Model

Factor analysis was carried out to ensure the construct validity and uni-dimensionality of SERVQUAL. The SERVQUAL model has five key dimensions: responsiveness, reliability, empathy, assurance and tangibles. Responsiveness refers to the willingness of all parties involved in the service provision process to assist customers and provide immediate services. Reliability is the ability of all parties involved in the service provision process to provide service as promised and to be reliable and accurate. Empathy is the attentive and caring nature of the service provider to the customer. Assurance refers to the knowledge and concern of all parties involved in the service provision process as well as their abilities to generate customer trust and confidence. Tangibles encompass the physical facilities, equipment and the appearance of all parties involved in service activities. In this study, the customers are the young fisherman who received service from the government through the six programmes mentioned above and the application of the SERVQUAL model is to capture and measure the service quality experienced by the young fishermen.

The satisfaction of the target group or customers is an important aspect that usually gets the attention of product or service providers. This is because the quality of products or services provided by an organisation can be evaluated and improved based on the views obtained from the target group or customers (Parasuraman et al. 1991; Halina and Atiah 2014; Iwaarden and Van der Valk 2013; Hairunnisa et al. 2015; Norhafiza and Hairunnizam 2017).

Result and discussion

Socio-economic profile

The socio-economic characteristics of the respondents are presented in *Table 2*. Of the total respondents (n = 476), 14.92% (n_1 = 71) are youth and almost all of them are men (95.8%). A strong physical body is one of the factors leading to the higher percentage of men than women involved in fishing activities. Nonetheless, there is a small group of women engaging in this activity, indicating that women also have the skills and interest in this activity. The majority of the respondents are Malays (81.7%), followed by other races (ethnics in Sabah and Sarawak) (11.3%), while the Chinese ethnic only represents 7%. No Indian youth respondents participated in this study. This study also found that most of the respondents (73.2%) studied up to the secondary level, while 18.3% and 8.5% of the respondents reached primary and tertiary education levels, respectively. Since most of the young fishermen had at least a secondary level of education, it will be relatively easier for them to adopt new technology and innovation (Oyelami and Ajanaku 2019). *Table 2* also shows that on average, every respondent had five persons in the family and earned a monthly income of RM2,003, which is above the minimum wage level of RM1,200 per month set by the Malaysian Government (Federal Government Gazette 2020).

Malaysia manages fishery resources using the area zoning system. Under this system, the fishing areas are divided into four fishing zones based on the distance from the beach. Fishermen in Zone A can only operate within 0 – 5 nautical miles from the beach, Zone B within 5 – 12 nautical miles, Zone C within 12 – 30 nautical miles, and Zone C2 from 30 nautical miles to the Exclusive Economic

Table 2: Socio-economic profile of the respondents

Category		Percentage(%)	Mean
Gender	1 = Men	95.8	
	2 = Women	4.2	
Race	1 = Malay	81.7	
	2 = Chinese	7	
	3 = Indian	–	
	4 = Others	11.3	
Education level	1 = Primary school	18.3	
	2 = Secondary school	73.2	
	3 = Diploma/certificates	8.5	
	4 = Degree	–	
No. of household			5.52
Household income (RM)			2,003.86
Fishing zone	1 = Zone A	78.9	
	2 = Zone B	15.5	
	3 = Zone C	2.8	
	4 = Zone C2	–	
Fishing experience (Years)			13.95
Catch weight (MT)			1.63
Catch value (RM)			4,736.5
IAT involvement	1 = Yes	11.3	
	2 = No	88.7	

Source: Field Survey, 2020.

Zone (ZEE) (Samsudin and Shaharuddin 2017). Fishing vessels with the size of less than and equal to 40 GRT (Gross Register Tonnage) and with traditional operating equipment are allowed to fish in any zone. Commercial fishing vessels are allowed to operate only in Zone B and above, depending on the ship's weight. *Table 2* reveals that the majority of the young fishermen in this study operated in Zone A (78.9%). Meanwhile, 15.5% and 2.8% of the young fishermen operated in Zone B and Zone C, respectively. In other words, most of the young fishermen in this study were involved in traditional fishing (Zone A and Zone B) and only 2.8% were involved in commercial fishing, which uses vessels that are more than 40 GRT. On average, these young fishermen had been involved in this activity for 13 years. For IAT (agro-food product), only 11.3% of the young fishermen were involved in this activity.

Youth perception of selected programmes for the fishermen community in Malaysia

Overall, as *Table 3* shows, the living allowance programme (ESH) is the most effective programme, where around 85.71% of fishermen in Malaysia received the benefit, followed by petrol subsidies (58.61%), captured incentive (37.39%), diesel subsidies (19.12%), housing allowance (17.0%) and natural disaster allowance (5.88%). However, only 11.17% of youth received the benefits from all programmes. The analysis by programme shows that youth received more benefits in the form of natural disaster allowance and diesel subsidies which reported the highest percentage of participants (14.29%), followed by captured incentive (11.80%), living allowance (11.27%), petrol subsidies (10.75%) and housing allowance (6.17%). The results also show that youth were more adventurous and might be affected by dangerous fishing activities. They also used diesel vessels, which are normally more robust then petrol vessels. Many youths still lived with their parents and hence, not many of them received the living allowance and housing allowance.

Table 3 also shows the mean scores for the effectiveness of government programmes based on young fishermen's perception. Housing allowance received the highest score (4.8 out of 5.0), indicating the recipients' satisfaction with the implementation of this programme. The second most effective programme was the natural disaster allowance, followed by diesel subsidies with scores of 4.75 and 4.46, respectively. The remaining three programmes, namely living allowance, captured incentive, and petrol subsidies, recorded scores of less than 4, indicating that these programmes were neither ineffective nor effective and there is still room for improvement, especially for youth. According to a report by LKIM, in 2020, more than 89.2% of fishermen

Table 3. Number of participants and mean of effectiveness of government program for fisherman

Programs	Overall sample (%) (n = 476)	Youth (%) (n_1 = 71)	Mean	Std. Deviation
Living Allowance (ESH)	85.71	11.27	3.72	1.294
Capture Incentive (*Insentif Hasil Tangkapan*, IHT)	37.39	11.80	3.67	1.111
Natural Disaster Allowance	5.88	14.29	4.75	0.500
Housing Allowance	17.0	6.17	4.80	0.447
Diesel Subsidies	19.12	14.29	4.46	0.519
Petrol Subsidies	58.61	10.75	3.90	1.269
TOTAL MEAN			4.21	

Likert scale: 1 = very ineffective, 2 = ineffective, 3 = normal, 4 = effective, 5 = very effective

wanted the government to improve the subsidies or incentives extended to them, especially the fishermen in Sabah, Sarawak, and Perak. This is understandable given that the government has reduced the living allowance from RM300 a month to RM200 a month since 2018.

Table 4 shows the breakdown of young fishermen who were satisfied and dissatisfied with the programmes organised by the government. Of the total respondents, 50.7% were satisfied and 49.3% were dissatisfied with the programmes. The high proportion of dissatisfied young fishermen indicates the need for rectifications and serious actions by the agencies involved, such as LKIM and DOF, as there is a high potential of attracting young fishermen to participate in the activities organised by these agencies. Various programmes can be organised to attract young people to venture into the fishing industry.

The SERVQUAL model

Next, the variables that were expected to influence young fishermen's perceptions of the programmes organised by relevant agencies were tested using the SERVQUAL model. The variables in this study consist of five dimensions, namely responsiveness, empathy, assurance, tangibles and reliability that were adapted from the SERVQUAL model. The survey items were matched to the dimensions of the SERVQUAL model using factor analysis, as shown in *Table 5*. This study analysed the five dimensions along with the items to see which of these items affected each of the variables studied by looking at the values of load factor and communality of each item. It is also important to confirm the suitability of the items in the dimension groups studied. The highest load and communal values indicate the largest contribution to the variables studied. The study found that the load values satisfied the required specifications of the model.

Table 4. Level of satisfaction of young fisherman towards selected programs

Level of satisfaction			
	Frequency	Percent	Cumulative Percent
Satisfy	36	50.7	50.7
Not satisfy	35	49.3	100.0
Total	71	100.0	

Table 5 shows the respondents' perceptions of the programmes they participated in based on the five dimensions of the SERVQUAL model. Meanwhile, *Table 6* presents the test for reliability and Cronbach's alpha values. The reliability test is essential for data validation (Nunnally 1978), as it highlights the consistency between two measures. The alpha value is important for Likert-type scale data for composite scores (Raza et al. 2015). This study obtained Cronbach's alpha values ranging from .60 to .84 for all items except reliability, which reported a value below the minimum threshold of .6; hence, this variable should be excluded (Hair et al. 1998).

Table 5 shows the results of the Kaiser–Meyer–Olkin (KMO) and Bartlett's tests performed to check the sampling adequacy of the data. The value of KMO for all items was 0.791 or 79.1%, indicating satisfactory sampling adequacy as the value exceeded the benchmark of 0.5 or 50% (Leech et al. 2005). Bartlett's test of sphericity confirmed a significant difference in the properties of the correlation matrix and identity matrix. For this test, a probability value of less than 0.05 indicates a significant difference in the properties of the correlation matrix and identity matrix, which is desirable (Leech et al. 2005). The result also shows that the value of Bartlett's test of sphericity was significant at the 1% level, implying that the sample data are appropriate for the factor analysis (Bartletts 1954).

Factor analysis was used to validate and construct the dependent and independent variables, as factor analysis can minimise a large set of information into small factors.

Table 5: Young fishermen's perceptions of the management of government programmes in Malaysia

	Component				
	Responsiveness	Empathy	Assurance	Tangibles	Reliability
The help I get meets my needs	.803				
My problems can be identified and solved quickly and effectively	.794				
I receive help easily and quickly	.738				
This program/assistance organised has increased my income	.700				
The help given to me is sufficient	.594				
Department and agency representatives are easily contacted for information and advisory services		.835			
Representatives of departments and agencies are monitoring		.801			
Departments and agencies identify issues and problems in my area		.695			
There is a close relationship between agency and department representatives and me		.588			
I easily deal with representatives of departments and agencies		.475			
Help is open to anyone who is interested			.764		
This program/assistance organised by MAFI can improve my standard of living			.679		
Assistance/subsidies/incentives are provided transparently			.616		
I agree the assistance is from the Ministry of Agriculture and Food Industry (MAFI)				.899	
I agree that the Department and agencies provide a lot of help to fishermen.				.755	
This program/assistance organised by MAFI should be continued every year					.813
My assistance/subsidy application is through departments and agencies					.677
Cummulative Variance (%)	22.543	40.309	54.601	66.025	74.631
KMO measure of sampling adequacy	0.791				
Bartlett's test of sphericity approx. chi-square	716.852				
Degree of freedom	136				
p-value	0.00				

Likert scale: 1 = very ineffective, 2 = ineffective, 3 = normal, 4 = effective, 5 = very effective

Besides, Tabachnick and Fidell's (1996) study suggests performing factor analysis to examine the underlying structure of theory. In this study, the principal component method with Varimax rotation was used. There are several methods for performing rotation, including Varimax, which has been widely used in research (Ali and Raza 2015; Ali et al. 2015; Amin 2012; Raza and Hanif 2013; Raza et al. 2015). A total of 17 questionnaire items related to SERVQUAL and customer satisfaction in five groups were categorised. This study obtained factor loadings greater than 0.50, which were significant and considered suitable for analysis (Kaiser 1974). The results of factor analysis are reported in *Table 6*.

The factor analysis revealed five identifiable factors that could account for 74.631% of the overall variance in the study (*Table 5*). However, the reliability test showed that the reliability factor should not be included as a major factor. Thus, among the four remaining factors, responsiveness explained 22.543% of the total variance, followed by empathy (17.766%), assurance (14.292%) and tangibles (11.424%).

Issues and challenges

This study also captured the issues and challenges faced by young fishermen in this industry. Such issues and challenges can be categorised into three aspects: difficulties in getting technical assistance, inadequate support, and bureaucratic problems (*Table 7*). All these aspects might have contributed to the lack of youth involvement in the fisheries industry.

Based on the reliability test (*Table 8*), the Cronbach's alpha values for all items ranged from .675 to .912. Since these values exceeded the benchmark of .60, the data are thus reliable enough to validate the variables (Hair et al. 1998).

As mentioned earlier, the factor loadings for all items were greater than 0.50, making them significant and appropriate for factor analysis (Kaiser 1974). Subsequently, the factor analysis revealed three identifiable factors that accounted for 62.108% of the overall sample variance (*Table 7*). Specifically, 'Difficulties in getting help' explained 38.062% of the total variance, followed by 'Assistance does not meet the needs' and 'Bureaucratic issues' that accounted for 12.214% and 11.832% of the total variance, respectively.

Table 6. Result of reliability analysis

Variables	Items	Cronbach's alpha
Responsiveness	5	0.875
Empathy	5	0.821
Assurance	3	0.716
Tangibles	2	0.713
Reliability	2	0.521

Difficulties in getting help

In the fisheries sector, government agencies such as the Fisheries Development Authority of Malaysia (LKIM) and the Department of Fisheries (DOF) are directly involved in fisheries training programmes (Zaimah 1996). However, the existing programmes are not comprehensive and do not focus on the needs of youth. According to a study conducted by Nawang et al. (2009), young fishermen mostly inherited their skills from their families rather than from programmes organised by the government. In addition, these young people also assumed that the agencies involved are difficult to contact.

Assistance does not meet needs

Another problem faced by youth in the fishermen community is that the facilities do not meet their needs. For example, most of the jetties are no longer usable. They need a suitable jetty provided by the government to raise their catch to land properly instead of using the jetties owned by boat owners or private companies. In addition, the subsistence allowance rate, which has been reduced from RM300 to RM200 per month in 2018, has caused dissatisfaction among fishermen, especially young fishermen (Field Survey 2020). According to LKIM (2020), 41.9% of the fishermen had limited sea

Table 7. Young fishermen's perceptions of issues and challenges regarding the management of government programmes in Malaysia

	Component		
	Difficulty in getting help	Assistance does not meet the needs	Bureaucratic issues
Some of the assistance is not required (ex: does not follow the correct specifications)	.792		
Department and agency representatives are difficult to contact	.777		
The value limit of assistance is very low/does not correspond to the problem encountered	.774		
Application guidelines are difficult to follow	.736		
Department and agency representatives are less knowledgeable in the prescribed field	.733		
Departments and agencies do not carry out their roles/responsibilities properly	.724		
It is difficult to deal with representatives of departments and agencies	.716		
Programs/assistance carried out do not follow local needs	.715		
No announcement to the local community about the program/assistance organised by the MAFI	.648		
There is a delay in the process to renew the license/permit	.630		
The help received was not of good quality	.564		
No periodic monitoring		.792	
Funds for programs/assistance provided are insufficient		.786	
Bureaucracy in program management often causes delays in receiving aid			.815
The selection of aid recipients/program participants does not follow the procedures and criteria			.716
Cummulative Variance (%)	38.062	50.276	62.108
KMO measure of sampling adequacy	0.844		
Bartlett's test of sphericity approx. chi-square	520.987		
Degree of freedom	105		
p-value	0.000		

Likert scale: 1 = very less effective, 2 = less effective, 3 = normal, 4 = effective, 5 = very effective

Table 8. Result of reliability analysis

Variables	Items	Cronbach's alpha
Difficulty in getting help	11	0.912
Assistance does not meet the needs	2	0.706
Bureaucratic issues	2	0.675

fishing activities due to inappropriate and unsustainable equipment. Thus, to attract young people to join the fishing industry, the government should promote fishing as an entrepreneurship activity that generates a good income and provides financial security. More incentives should be extended to those who are keen to start a career as fish-based entrepreneurs, especially for deep-sea fishing activities, aquaculture venture, and processing industries that promise higher incomes.

Bureaucratic issues

Bureaucratic issues, such as delays in approving license renewals or new applications, are also a concern among young fishermen. Therefore, the agencies involved need to be more attentive to the problems involving youth as such problems will diminish their interest in venturing into this industry. Respondents' interest is also influenced by the role played by government agencies such as DOF and LKIM and this bureaucratic problem has long been debated, for example, by Nawang et al. (2009). It is one of the reasons why fishermen have not been able to increase their productivity. Bureaucracy can also lead to inaccurate and unfair decisions by government agencies, resulting in low service quality. Barbara et al. (2008) stated that the bureaucracy that occurs between private and government sectors is different from the bureaucracy that takes place within the government sector. According to Michael (2010), the level of bureaucracy that takes place depends on the government agency's practice and way of performing its duties. Because of bureaucracy, government agencies may not follow proper procedures and process in implementing their programmes, ultimately compromising the quality of service.

Conclusion

The results of this study show that the management of the programmes was quite effective. The SERVQUAL model results show that young fishermen's perceptions of the management of these programmes were based on the dimensions of responsiveness, empathy, assurance and tangibles. This study also captured the issues and challenges faced by young fishermen in this industry and categorised them into three aspects: difficulties obtaining technical assistance, inadequate support and bureaucratic problems. Youth involvement in Malaysia's fisheries industry is still lacking and these issues will continue to affect the industry if not addressed seriously. Youth are reluctant to participate in this industry due to the stigma that this industry cannot offer better job opportunities or financial security. The programmes and initiatives implemented by the government are for the fishermen community in general and do not take into account the needs of youth. Hence, these programmes have not been effective for them and yet, no specific programme that specifically addresses their needs has been introduced. Only half of the youth were satisfied and felt the benefits of the programmes, while the remaining were not satisfied. Thus, the government needs to examine all the programmes and initiatives that have been implemented, besides redesigning special programmes that can attract youth to join the industry and sustain the existing young fishermen. The results of this study suggest that there are vast opportunities to improve the management of the programmes and that all parties should support the government's efforts to encourage the involvement of youth, especially highly educated youth, in the fisheries sector in developing this industry.

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Abstrak

Penglibatan belia dalam industri perikanan sangat penting dalam menjamin pembangunan masa depan negara. Golongan muda ini diperlukan oleh negara untuk meningkatkan bilangan pekerja mahir dan memodenkan sektor pertanian, terutamanya dalam industri perikanan. Agensi kerajaan seperti Lembaga Pembangunan Perikanan Malaysia (LKIM) dan Jabatan Perikanan (DOF) telah berjaya mengatur pelbagai program untuk membangun dan merangsang sosioekonomi nelayan. Terdapat enam program terlibat dalam kajian ini iaitu Elaun Sara Hidup (ESH), Insentif Hasil Tangkapan (IHT), Elaun Bencana Alam dan Perumahan serta Subsidi Diesel dan Petrol. Objektif kajian ini adalah untuk mengukur keberkesanan program dan tahap persepsi nelayan muda terhadap pengurusan program ini. Kaedah yang digunakan dalam penyelidikan ini adalah kaedah kuantitatif dengan mengumpulkan data primer melalui soal selidik secara bersemuka. Dalam kajian ini, teknik persampelan rawak berstrata digunakan dan responden ialah nelayan Malaysia dengan ukuran sampel n = 476. Daripada sampel ini, sampel (n_1) ialah responden berumur antara 15 – 40 tahun yang dipilih dan dianalisis menggunakan analisis deskriptif, analisis faktor dan model SERVQUAL. Hasil kajian menunjukkan bahawa total min skor bagi skor keberkesanan pengurusan program ialah 4.22 daripada 5 mata, yang menunjukkan bahawa sebahagian besar nelayan muda bersetuju bahawa program ini berkesan. Model SERVQUAL juga data menjelaskan bahawa persepsi nelayan muda terhadap pengurusan program-program ini adalah didasarkan pada responsif, empati, jaminan dan ketara. Kajian ini juga merungkap isu dan cabaran yang dihadapi oleh nelayan muda dalam industri ini yang dipengaruhi oleh faktor utama, iaitu kesukaran untuk mendapatkan bantuan teknikal dan tidak cukup sokongan. Semua aspek ini mungkin menyumbang kepada kurangnya penglibatan belia dalam industri perikanan. Hasil kajian ini menunjukkan bahawa terdapat banyak peluang untuk meningkatkan pengurusan program-program ini dan semua pihak harus menyokong usaha kerajaan untuk mendorong penglibatan para belia dalam sektor perikanan, terutamanya belia yang berpendidikan tinggi dan seterusnya mengembangkan industri ini.