# Profiles, Psychology and Satisfaction of Anglers on Fishing Facilities of Saltwater Pond

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#### Abstract

**Purpose:** This research looked at visitor characteristics as well as angler satisfaction with recreational fishing facilities and services at the Ko-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) in Tuaran, Sabah.

**Theoretical Framework:** Recreational fishing has a lot of potential in Sabah since there are so many natural areas to fish in, such the sea, rivers, and ponds. Although there have been researches on recreational fishing in ponds, particularly artificial and freshwater ponds, no studies on saltwater ponds have been done.

**Design/Methodlogy/Approach:** The study design is exploratory and descriptive, using a quantitative approach. Qualitative approaches through in-depth interviews with KPIMKL entrepreneurs and indirect interviews with chosen respondents, are also used in this study. The survey included 105 people who were chosen at random.

**Findings:** The finding showed that the visitor profiles of the respondents include repeat visitation and group visitation, fishing duration of 5 - 6 hours, utilising private automobile, major source of information is social media, and the attraction elements are the diversity of fishing ponds and sizes of fish. Furthermore, the majority of respondents have participated in KPIMKL-organised contests, particularly in the Big Game category. Visitors were generally satisfied, as 10 of the 17 attributes for facilities and services provided at KPIMKL received a "very high" mean score (including surau facilities, rest huts, and food stalls), 6 received a "high" mean score (including sources, as well as fishing fees), and only one received a "moderate" mean score (the rubbish bins facility).

**Research Practical and Social Implication:** In summary, the recreational fishing study at this saltwater fishing pond will help stakeholders, particularly fisheries department and fishing pond operators to be more dedicated and proactive in ensuring the quality of fishing services and facilities is always at its best.

Keywords: Satisfaction Level, Recreational Anglers, Facilities, Services, Fishing Ponds

# 1. Introduction

Recreation is a leisure activity that involves a sense of enjoyment, pleasure, and satisfaction that is strongly linked to elements of human wellbeing (Hansen, 2018). Recreation is also synonymous with relaxation, a break from activities and a work commitment to restore energy. This it is closely related to the aspects of a person's mental and physical health (Koppen et al. 2014). According to Hansen (2020), recreation is a leisure activity that provides enjoyment as well as mental and physical well-being. According to Arlinghaus et al. (2021), when a country develops and its population earns more, people are able to spend more of their resources on leisure and recreational activities. Recreational fishing for example, is one of the activities that people like doing in their spare time (Pitcher & Hollingworth, 2002).

In general, recreational fishing includes fishing as a profession, hobby, outdoor sports, or leisure activities on the edge or in recreational fishing like lakes, oceans, rivers, and other bodies of water. Arlinghaus et al. (2007) emphasised that recreational fishing or angling refers to fishing activity that does not have the primary goal of producing food or generating revenue for sale. According to Demirci et al. (2018), the concept of recreational fishing covers the aspects of hobbies, entertainment, tourism and leisure activities. Anglers who fish for fun are called recreational anglers (Ditton & Hunt, 1996).

To better comprehend the idea of recreational fishing, Kauppila and Karjalainen (2012) developed a model of the link between fishing activities, leisure, recreation, and tourism that was adapted from Hall and Page's original model (2006). The approach starts with the idea of "free time," which is separated into two parts, which are work time and free time. This classification is based on the subject's perspective, for example, whether fishing is a job activity (commercial fishing) or a leisure activity, such as subsistence fishing, local recreational fishing, and fishing tourism (tourism fishing).

Recreational fishing activities, according to Arlinghaus et al. (2019), engage millions of individuals worldwide and produce billions of dollars (USD) in various industries. Recreational fishing activities, from a social and economic standpoint, contribute to the well-being of individual recreational anglers and industries that rely on such activities, the ability to finance recreational fisheries management, and encourage active public participation in natural processes and biodiversity conservation (Arlinghaus et al., 2019;Yusoh et al., 2022)). According to Morales-Nin et al. (2021), around 73% of respondents fished in seawater regions, 40% fished in freshwater areas, and 13% indicated the respondents that fished in these two distinct habitats, namely saltwater and water bland.

Accordingly, one of the popular recreational fishing locations is the man-made or natural ponds whether freshwater or saltwater. Fishing ponds, according to Elliot (2004), are often found in rural regions because owners open their paid ponds on private land. Recreational anglers would have the option to fish in public fishing ponds, which are always available to the public. In addition, a saltwater fishing pond has been constructed and is designed for leisure fishing activities. To simplify the water flow system into the ponds, saltwater fishing ponds are typically created near the ocean area.

Eliah et al. (2011) and Mohd Azim (2015) conducted researches on recreational fishing in freshwater ponds in Malaysia. Regardless, both of these studies were carried out in freshwater ponds, although research on saltwater fishing ponds has never been done before. Hence, this enables researchers to conduct studies on recreational fishing activities in saltwater fishing ponds, particularly at the Co-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) in Tuaran, Sabah. Furthermore, since the 1970s, the study of human aspects to understand anglers' attitudes, norms, and behaviours has grown in response to managers' recognition that they manage people, not fish (Arlinghaus, 2004; Parkkila et al., 2010). To that aim, researchers intend to investigate the human side of saltwater fishing ponds by concentrating on the characteristics of recreational anglers and their satisfaction with the amenities supplied. The objectives of the study are:

- i. To identify the characteristics of recreational anglers' visits at the Co-Nelayan Laya-Laya.
- ii. To examine the level of satisfaction of recreational anglers on the facilities and services provided at KPIMKL.Marine Fishing Pond (KPIMKL), Tuaran, Sabah.

# Malaysia's Recreational Fishing Activities: Literature Highlights

In Kuala Rompin, Pahang, Malaysia, studies on recreational fishing activities began to be recorded through master's level research connected to the potential of deep sea fishing activities as a tourist attraction (Ismail, 2007). This study discovered that deep sea fishing operations in Kuala Rompin have the potential to be developed as a tourist attraction. The Royal Pahang Billfish International Challenge (RPBIC) is a well-known cruise fishing tournament in Malaysia and across the world in this respect. With the help of 30 rental boats, RPBIC was able to attract 66 participants from Malaysia, Singapore, and Zimbabwe at the beginning of its operation. The number of participants grew to 100 in 2005, with increasing involvement from Singapore, the Philippines, China, Canada, the United Kingdom, Australia, and Japan (Ismail, 2007).

Following Ismail's work in 2007, Eliah et al. published their findings in 2011. However, researchers discovered that the growth of recreational fishing activities in Malaysia is more impacted by research commitment elements in postgraduate studies (Ismail, 2017) and research groups for a single short-term project (Eliah et al., 2011; Alias

et al., 2014). To that end, the researcher conducted a review of the literature on recreational fishing activities in Malaysia based on the similarity of themes and issues studied, namely the concept of fishing activities and its relation to tourism (Mohd Zulhalmi et al., 2015; Alias et al., 2014), deep sea fishing activities (Ismail, 2007; Jabil et al., 2020b), coastal fishing activities (Jabil et al., 2020a), and fishing activities in man (Table 1).

#### **Recreational Fishing Activities as a Tourist Attraction**

The notion of fishing activities and their relationship to tourism were the first subject investigated (Mohd Zulhalmi et al., 2015; Alias et al., 2014; Pirdaus Yusoh et al, 2022). Mohd Zulhalmi et al. (2015) conducted a conceptual survey of fishing activities as a tourist attraction in Malaysia, describing the idea, segmentation, and research potential of fishing tourism. The ideas that are highlighted include fishing activities, leisure, relaxation, and tourism. Boat operators, fishing tourist profiles, and fishing sites posit among the segmentation criteria investigated. According to the findings of the literature review, fishing activities are still in their early stages. There are still numerous fishing places that have not been scientifically explored and scholarly written; thus, the potential for research linked to this recreational fishing activity is still vast.

Alias et al. (2014), with their study on fishing tourist activities using a sustainable method in Kenyir Lake, Terengganu, are among the scholars who employ the idea of fishing tourism. The purpose of this study is to investigate sustainable ways in fishing tourism using qualitative methodologies with fishing stakeholders. According to the study's findings, numerous techniques for lake management must be applied in order to control fish supplies and further protect natural resources. This research adds to a better knowledge of fishing practises, particularly among recreational anglers. The study's findings can also assist the government and other key stakeholders in developing additional recreational fishing tourist locations in the country. Alias et al. (2014) limited their investigation to lakes, as opposed to others that involved the deep sea (Ismail, 2007; Jabil et al., 2020a), coasts (Jabil et al., 202b), and man-made ponds and freshwater (Eliah et al., 2011; Mohd Azim, 2015).

#### **Deep Sea Recreational Fishing Activities**

Deep sea fishing is the second study subject linked to recreational fishing activities in Malaysia (Ismail, 2007; Jabil et al., 2020b). The project, which is based on Ismail's master's thesis, is a pilot study in the nation that focuses on the potential of deep sea fishing operations as a tourist attraction, as mentioned at the start of this literature review. Jabil et al. (2020b) are the next deep sea recreational fishing activity researchers. The purpose of their research is to look into the involvement of charter boat operators in deep sea recreational fishing activities in Kota Kinabalu, Sabah. This study used a qualitative technique with 15 respondents from recreational fishing charter operators and staffs. Management, services, competition, and economic generating are the four forms of charter vessel operator engagement in deep sea recreational fishing operations. In terms of services, this includes factors such as packages, bookings, and fishing activity sites. In terms of competition involvement, the majority of ship owners participate in international fishing tournaments that held annually by the Sabah Anglers Association (SAA). Furthermore, engagement in economic generation reveals that a ship industry's earnings are estimated based on income from recreational angler rentals, but an economic generation for ship captains and ship personnel is measured based on a month's salary and commission each time they travel to sea.

#### **Coastal Recreational Fishing Activities**

Jabil et al. (2020a) undertook a survey of recreational fishing activities along the coast. This research focuses on the characteristics and motivations of anglers participating in coastal recreational fishing activities in Kota Kinabalu, Sabah. This study used a quantitative method with a total of 60 participants. The findings reveal that the profile of beach recreational anglers in Kota Kinabalu comes from a diverse range of backgrounds. A total of five motives of coastal recreational anglers recorded the highest mean of the 15 analysed, including close fishing site (4.48), interest in fishing activities (4.34), conveniently accessible fishing equipment (4.30), comprehensive public facilities (4.28), and inexpensive fishing fees (4.25). As a result, constant initiative and dedication are required to realise Kota Kinabalu's potential as a prominent recreational fishing destination.

#### **Man-Made Pond Recreational Fishing Activities**

Two studies have been conducted on recreational fishing in the pond, notably Eliah et al. (2011) and Mohd Azim (2015). Both of these studies took place in freshwater ponds. Eliah et al. (2011) evaluated the economic value of fish resources acquired from fishing pond firms by examining the relationship between the production of products and services and the assessment of the economic value of fish resources obtained from fishing pond enterprises. In the state of Pahang, the Contingent Valuation Method (CVM) is used to determine the economic worth of angling in fishing ponds in the context of ecotourism. Recreational anglers were interviewed using questionnaires to learn about their socioeconomic profile, the entry charge to the pond, the market price of fish in the pond, fishing and transport costs, the kind and species of fish, and their willingness to pay (WTP). This research included 53 participants from fishing ponds in the Pahang districts of Raub, Kuala Lipis, Kuantan, Pekan, Maran, and Jerantut. The study's findings reveal that the one-time admission price for three (3) hours ranges from RM12.00 to RM100.00, with an average WTP of RM32.94. For the same period, the real one-time admission charge ranges from RM10.00 to RM36.00, with an average of RM18.00. In terms of the regression function, variables such as monthly visits and entry costs were shown to be favourably linked with WTP, whereas age was found to be negatively correlated (Yusoh, M.P et al, 2022). The growth of fishing pond activities, as well as freshwater anglers' willingness to pay, have the potential to assist forest biodiversity conservation and river conservation. By providing additional possibilities for reproduction, this can assist in minimising the threat of extinction for freshwater fish resources.

Mohd Azim (2015) also performed a survey on recreational fishing activity in the pond. His research focuses on the social aspects of recreational anglers' fishing themes. This research also evaluates the importance of fishing motives that are often associated with angler motivations. A total of 100 recreational anglers were interviewed for this research. The questions cover 17 important themes. A total of 14 themes revealed that respondents 'agreed' with the supplied statement. According to the conclusions of this survey, nearly all respondents 'agree' to select recreational fishing as a pleasant activity with the family, a way to alleviate stress at work, a place to meet new people, develop fishing abilities, and appreciate the beauty of nature. However, some of them engaged in recreational fishing activities in order to win jackpot rewards provided by fishing pond owners to anglers who caught the largest fish. The majority of respondents, on the other hand, 'disagreed' with the statements of spending time with family while fishing, selling all fish obtained as a source of revenue, and releasing all fish caught as satisfaction in fishing activities. The results of the study concluded that the government and some non - governmental organisations (NGOs) need to improve the level of recreational fisheries management in Malaysia by knowing the real themes or priority desired by recreational anglers.

#### **Local Fishing Competition**

Despite the fact that there are several organisations involved in fishing contests at various levels, such as clubs or associations, districts, states, national, and worldwide, research on fishing competitions in Malaysia are still inadequate and limited. Jabil et al. (2020c) performed one of the researches on fishing contests at the local level. The purpose of this study is to determine the characteristics and motivations of participants in local fishing contests using case studies from Kota Kinabalu and Bongawan. Interviews using questionnaires, indirect interviews, and observations in the subject region were utilised as research techniques. In terms of angler profiles, the majority of competitors in local fishing contests use just one rod, favouring a certain brand of fishing rod and its quality. The cost of purchasing a set of fishing rods is RM300 or less, while the cost of participating in local level fishing tournaments is RM200 or less. However, the vast majority of respondents did not belong to a fishing club (85%). The interest factor recorded 4.37, which is the mean score in the very high' category, for the motivation to participate in the local fishing tournament. Participating in the competition because there was free time, the value of the rewards, and the number of prize categories given were among the seven reasons that registered under a 'strong' motive (mean 3.43 - 3.93). Following that are four 'moderate' level variables (mean 3.12 - 3.28) such as family encouragement, cheap competition costs, and organiser reputation factors. Nonetheless, the presence of fishing clubs was shown to be the least important factor (2.58). The findings of this study are significant in terms of giving advantages to the community as a healthy lifestyle practise, generating profitable money for competition organisers, and providing helpful documentation for recreational fishing activities and sports fishing in the country.

Thoma	Sahalar	Study title	Issues that are being	
Theme	Scholar	Study the	addressed	
Fishing tourism	Mohd Zulhalmi	Fishing tourism:	The concept of fishing	
concept	et al. (2015)	Concepts, segmentation	activities in terms of	
		and research potential in	segmentation and research	
		Malaysia	potential in Malaysia.	
Fishing tourism on	Alias et al.	Sustainable approach of	A sustainable approach of	
the lake	(2014)	fishing tourism in	fishing tourism in Kenyir	
		Kenyir Lake	Lake.	
Deep sea fishing	Ismail Mudin	The potential of deep	This study examines the	
	(2007)	sea fishing as a tourist	potential of deep sea fishing	
		attraction in Kuala	activities as a tourist attraction	
		Rompin	in Kuala Rompin, Pahang.	
Deep sea fishing	Jabil et al.	Involvement of charter	The involvement of deep sea	
	(2020a)	boat operators in deep	charter operators is in the	
		sea recreational fishing	aspects of management,	
		activities in Kota	services, competition and	
		Kinabalu, Sabah	economic generation.	
Coastal fishing	Jabil et al.	Profiles and motives of	This study examines the	
	(2020b)	anglers on coastal	profile of fishing activities	
		recreational fishing	and the motivations that	
		activities in Kota	motivate them to fish on the	
		Kinabalu	coast.	
Man-made fishing	Eliah et al.	An economic study of	Willingness to pay at fishing	
	(2011)	recreational fishing in	ponds in five districts in the	
		fishing ponds	state of Pahang.	
Man-made fishing	Mohd Azim	Sociological study	Reviewing several themes	
	(2015)	of fishing themes	of recreational fishing on a	
		commonly sought by	fishing pond in Semenyih,	
		recreational anglers	Selangor.	
Local fishing	Jabil et al.	Profiles and motives	This study examines the	
tournament (pond &	(2020c)	of anglers in local level	profiles of anglers and the	
coastal)		fishing competitions	motives that motivate them to	
			participate in local -level	
			fishing competitions.	

**Table 1:** Research Themes of Recreational Fishing Activities in Malaysia

# 2. Data And Methodology

Study design, according to Creswell and Creswell (2017), is a detailed action plan for how a study will be carried out. This strategy is intended to help researchers through the process of gathering, evaluating, and interpreting the outcomes of their study. This study utilised an exploratory and descriptive research approach. The fundamental principle behind exploratory design is to use quantitative data and descriptive analysis to assess subjectively formed impressions, opinions, and attitudes from large-scale data collection (Othman, 2013). As a result, these exploratory and survey studies are acceptable and relevant for gathering the data needed for this current study. The method employed is quantitative, and it is backed up by qualitative data from in-depth interviews with fishing pond operators and indirect interviews with a small number of respondents. A total of 105 respondents were chosen at random from visitors who fished at the Ko-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) in Tuaran, Sabah, to undergo interviews by utilising a questionnaire.

Respondents' responses are based on a 5-point Likert scale, with 1 = very unsatisfactory, 2 = less satisfactory, 3 = moderate, 4 = satisfactory, and 5 = very satisfactory, to evaluate the degree of satisfaction of recreational anglers

with elements of facilities and services at KPIMKL. There are 17 factors connected to the fishing pond's facilities and services that have been established. Following that, the responses were evaluated using five mean score scales: 'very low' (1.00 - 1.80), 'low' (1.81 - 2.60), 'moderate' (2.61 - 3.40), 'high' (3.41 - 4.20), and 'very high' (4.21 -5.00). The technique suggested by Alias (1999) was utilised to interpret the mean score in this investigation (Table 2).

Table 2: Interpretation of Mean Scores		
Level	Mean	
Very low	1.00 - 1.80	
Low	1.81 - 2.60	
Moderate	2.61 - 3.40	
High	3.42 - 4.20	
Very high	4.21 - 5.00	
(1000)	ã	

Source: Alias (1999).

# 3. Research Area

Tuaran is a district located in Sabah's northwest coast. Tuaran Town is around 34 kilometres from Kota Kinabalu. The region encompasses roughly 450 square miles and it is a home to 212 villages. This research was carried out in the Co-Nelayan Laya-Laya Tuaran Marine Fishing Pond in Sabah. This Marine Fishing Pond is located in the Laya-Laya Village. Tuaran town and Laya-Laya Village are 15 kilometres apart. The coordinates for Kampung Laya-Laya are 6.0803211000° latitude and 116.2068354000 ° longitude. The Co-Nelayan Marine Fishing Pond, which measures 8,630 square metres, was finished in 2016. The water supply for this pond is identified in the flow of sea water around the pond. The pond is rectangular in shape (Photo 1).



Figure 1: Image of Co-Nelayan Laya-Laya Tuaran Marine Fishing Pond Source: Google Earth (2019).

# 4. Results And Discussion

# **Demographic Profile of Respondents**

Table 3 shows the demographic characteristics of the 105 respondents who took part in this survey. According to the study's findings, the majority of respondents (92 persons, or 87.6%) were male, while the remaining 13 people (12.4 %) were female. Men participate in recreational fishing more than women since this activity is more associated with men. In terms of marital status, 80 individuals (76.2%) were single, 22 of them (21.0%) were married, and the remaining three (2.9%) were widowed. According to the study's findings, the majority of respondents (34.3%) were Bajau Sama / Ubian, followed by other races such as India, Chinese, Iranun, and Murut (29.5%) (31 people). Dusun respondents made up 13.3% (14 persons), Bugis 12.4% (13 people), and Kadazan 10.5% (11 people).

In terms of age, respondents between the ages of 21 and 30 comprised 36 respondents (34.3 %), followed by those between the ages of 41 and 50, who included 33 of them (31.4 %). Furthermore, respondents aged 31 to 40 years and 50 years and above accounted for 19 (18.1 %) and 12 (11.5 %) of the total, with the remaining five (4.8 %) aged 20 years and under. Furthermore, the majority of respondents (55.2 %) had their secondary level of education, followed by those with their higher degree of education (21.0 %) (26 people). Following that, 3.8 % (four persons) have different education level than those stated, such as obtaining a certificate and skills level. While respondents with primary school education made up as 2.9 % (eight individuals), those who did not attend school made up as 1.9 % (five people).

Demographic Characteristics	Criteria	Frequency	Percent (%)
Gender	Male	92	87.6
	Female	13	12.4
	Single	80	76.2
Marital status	Married	22	21.0
	Widow/widower	3	2.9
<b>D</b> (1,)	Bajau Sama / Ubian	36	34.3
Ethnic	Dusun	14	13.3
	Kadazan	11	10.5
	Bugis	13	12.4
	Others	31	29.5
Age	20 years and under	5	4.8
	21 – 30 years	36	34.3
	31 – 40 years	19	18.1
	41 – 50 years	33	31.4
	50 years and above	12	11.5
Education	High	26	24.8
	Secondary	62	59.1
	Primary	8	7.6
	Certificate & skills education	4	3.8
	No formal education	5	4.8
Jobs	Civil servants	25	23.8
	Private servants	10	9.5
	Traders / Entrepreneurs	21	20.0
	Self-employed	31	29.5
	Retired	6	5.7
	Housewife	8	7.6
	Student	4	3.8

**Table 3:** Demographic Profile of Respondents

In terms of employment, self-employed respondents had the largest percentage (29.5%) (31 individuals), followed by government officials (23.8%) (25 people). Following that, 20.0% work as traders (21 people). Respondents who work as private officers reported a total percentage of 9.5% (10 individuals), followed by housewives, who recorded a percentage of 7.6% (eight people). Retirees account for up to 5.7% (six individuals), and students account for up to 3.8% (four people).

# Characteristics of Respondents' Visit to KPIMKL

According to Table 4, the majority of respondents who visited the Co-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) were repeaters or loyal visitors, with the total of 87 individuals (82.9%). There was a total of 18 responders who visited for the first time (17.1%). The majority of repeat visitors to this fishing pond are those who attend the fishing competitions hosted at KPIMKL, regardless of whether the tournament is a Small Game, Medium Game, Big Game, or JP Strike. In terms of the type of visit, the study revealed that 57.1% (60 individuals) were group visits, while 22.9% were family visits (24 people). It recorded 20% for the type of visit alone (21 people). For the profile of the fishing time period in KPIMKL, the majority of respondents, which were 82 people (78.1%) fished within 5 to 6 hours. Meanwhile, for a period of 1 - 2 hours and 3 - 4 hours recorded 8 people (7.6%) and 11 people (10.5%) respectively. Only four respondents (3.8%) were identified fished in KPIMKL within 6 hours and above. For recreational fishing activities to KPIMKL, the majority of respondents or 82 people (78.1%) use private cars. In addition, there were 14 respondents (13.3%) who use motorcycles and the remaining nine people (8.6%) who use other modes of transportation such as walking, cycling, vans and sightseeing buses.

Visit Characteristics	Criteria	Frequency	Percent (%)
Category of visit	First time visit	18	17.1
	Repeat visit	87	82.9
Form of visit	In groups	60	57.1
	With family	24	22.9
	Alone	21	20.0
Duration of fishing time	1-2 hours	8	7.6
	3-4 hours	11	10.5
	5-6 hours	82	78.1
	6 hours and beyond	4	3.8
Transportation mode to	Private car	82	78.1
KPIMKL	Motorcycle	14	13.3
	Others (bicycles, vans, buses etc.)	9	6.7
Source of information on	Social media (Facebook etc.)	50	47.6
KPIMKL	Relatives & friends	41	39.0
	Leaflet / brochure	5	4.8
	Newspapers / megazines / books	5	4.8
	Others (banners, agencies etc.)	4	3.8
The main attractions in	Various types & sizes of fish	50	47.6
KPIMKL	Contest prizes offered	37	35.2
	Strategic pond location	9	8.6
	Natural pond	5	4.8
	Reasonable rental fees	4	3.8
KPIMKL fishing	Ever participated	102	97.1
competition	Never participated	3	2.9
The type of fishing	Big Game	49	46.7
competition that	Medium Game	29	27.6
accompanies	Small Game	26	24.8
	JP Strike	1	0.9

 Table 4: Characteristics of Respondents' Visit to KPIMKL

Following that, 50 respondents (47.6%) discovered about the Co-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) via social media platforms such as Facebook, Whatsapp, Instagram, and others. In addition, 41 persons (39.0%) got the information from their relatives and friends. While both sources of information, namely pamphlets or brochures and newspapers, megazines, and books, yielded the same number of responses, which was five

(4.8%). Finally, additional sources were marked by four persons (3.9%), where they gained the information from sidewalk banners and tour operators.

The main attraction that motivates 50 respondents (47.6%) as recreational anglers to visit KPIMKL is the fishing pond itself, which offers a variety of fish species and sizes that may be fished. Meanwhile, the reward component given during the recreational fishing competition at this fishing pond was the major draw for the other 37 responders (35.2%). The second element that draws people to the fishing pond is the strategic position, which was chosen by nine individuals (8.6%), while five people (4.8%) said that the natural pond is the thing that draws them there. The remaining four respondents (3.8%) believe that the low rental costs motivate them to come fishing at KPIMKL.

The findings of the survey revealed that a total of 102 respondents (97.1%) said they have participated in fishing contests held by KPIMKL operators. The remaining three respondents (2.9%) said they have never entered a fishing competition held at the pond. Through the details, the majority of respondents (49 individuals) have participated in the Big Game tournament (46.7%). In the Medium Game and Small Game contests, a total of 29 individuals (27.6%) and 26 respondents were registered (24.8%). Only one respondent (0.9%) had ever competed in the JP Strike fishing tournament at this fishing pond.

# Anglers' Level of Satisfaction with Facilities and Services

Table 5 indicates how satisfied respondents were with the facilities and services at Tuaran's Co-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL). The analysis of the mean score of the respondents' degree of satisfaction was organised in the order of "very high" to "moderate". The findings revealed that ten facilities and services recorded a mean score of "very high" scale, namely the level of cleanliness and cheerfulness of the pond environment (4.79), variety of types and sizes of fish in the pond (4.76), surau facilities (4.53), water supply facilities and electricity (4.52), rest huts (4.47), food and beverage stalls (4.41), space facilities for fishing (4.39), environmental safety of fishing ponds (4.38), parking facilities (4.25), as well as payment counters (4.24).

Facilities and Services	Mean	Scale
The pond environment's cleanliness and cheerfulness	4.79	Very high
Variety of types and sizes of fish in the pond	4.76	Very high
Surau	4.53	Very high
Water and electricity supply	4.52	Very high
Resting hut	4.47	Very high
Food and drink stalls	4.41	Very high
Space for fishing	4.39	Very high
The safety of the fishing pond environment	4.38	Very high
Parking space	4.25	Very high
Payment counter	4.24	Very high
The position and location of the fishing pond	4.12	High
Toilet	4.12	High
Road to the fishing pond	4.11	High
Complaint room and information for visitors	4.11	High
Fishing fees charged	4.09	High
Signage / location map to the fishing pond	4.00	High
Rubbish bin	3.12	Moderate

**Table 5:** Level of Satisfaction of Anglers with the Facilities and Services at KPIMKL

Following that, there are six facility and service statements in KPIMKL that received a mean score of "high", namely the position and location of the pond (4.12), toilet facilities (4.12), road facilities to the fishing pond (4.11), complaints facilities and information to visitors (4.11), fishing fees charged (4.09), and signage facilities/location map to the fishing pond (4.00). The bin facility, on the other hand, had a mean score of 3.12 on a "moderate" scale.

#### 5. Discussion

Satisfaction, according to Birdsong et al. (2020), is the reward that recreational anglers obtain from their experience. Angler satisfaction influences rule selection, rule compliance, and the overall of angler behaviour. As a result, recreational fisheries management, which also the operator of saltwater fishing ponds in this study, must understand every factor that influence recreational angler happiness. According to Arlinghaus (2006), greater levels of satisfaction among recreational anglers can impact their trips to a particular fishing site.

#### "Very High" Mean Score Satisfaction Level

The study's findings revealed ten statements with a mean score of "very high". This demonstrates that people who came to KPIMKL to fish were "very satisfied" with the facilities and services offered. According to the researcher's discussions with pond owners, the elements of safety, hygiene, and amenities are prioritised at this pond;

As a pond owner, I place a high value on the pond's safety, cleanliness, and convenience. We do this to ensure that visitors are satisfied and comfortable.

(Entrepreneur, 44 years old)

A survey of anglers' satisfaction with the saltwater fishing pond amenities at Ko-Nelayan Laya-Laya, Tuaran found that several of the facilities offered had a mean score of "very high", including water and electricity supply (4.52), rest huts (4.47), and payment counters (4.47). Figure 1 shows photos of some of the additional facilities that provide anglers of KPIMKL with a high degree of satisfaction.

Furthermore, the aspect of a clean and cheery atmosphere, as well as the type and size of fish supplied in this fishing pond, provides anglers with greater enjoyment. The findings of this study are consistent with those of Arlinghaus (2006) and Golden et al. (2019), who found fishing location conditions like fish catch rates, environmental aesthetic value, and excellent environmental quality as the causes to angler's satisfaction. According to Hunt et al. (2019), most recreational anglers' choice of fishing site is influenced by the quality of amenities offered, the size of the fishing grounds, and the supply of a pleasant atmosphere. In conclusion, studies on angler satisfaction clearly indicate that the significance of convenience (utility) and satisfaction that might explain angler behaviour, as well as other elements of this, is essential to policymakers (Birdsong et al. 2020).



a) Surau



b) Parking space



c) Food & drink outlets d) Fishing space Figure 2: Selected Facilities Provided at KPIMKL

#### "High" Mean Score Satisfaction Level

Six statements on facilities and services in this saltwater fishing pond have a mean score of "high", indicating that visitors are "satisfied". Among the position and location criteria are toilet facilities, signs or location map, and fishing fees charged. The findings revealed that respondents were pleased with the strategic fishing pond's position and location. This is due to the profile of anglers who visited KPIMKL, which also dominated by repeat visitors (82.9%). The findings of this study contrast with those of Jabil et al. (2020a), who found location as the most important motivator, and this was also stated in 14 other statements given in a survey of respondents' motivations for fishing off the coast of Kota Kinabalu.

In addition, according to the researcher's observations, toilet facilities and the development of location maps or signboards in this marine fishing pond also satisfy recreational anglers who visit KPIMKL. Based on an indirect interview conducted by the researcher with one of the respondents, he states his satisfaction through the following:

I am at ease with the toilet facilities offered because they are clean and always functional. The information about how to get here is also apparent to me, as there are signboards. (Respondent 1, 25 years old, Bugis)

In terms of the fishing fee, it was discovered that the respondents were satisfied with the rate set. As a result, Jabil et al. (2020c) discovered that the primary motivation for a recreational angler to engage in a fishing tournament is to occupy spare time and reduce job stress. As a result, for someone with a strong interest in this leisure activity, the charge rate is neither a priority nor a problem.

#### "Moderate" Mean Score Satisfaction Level

The study's findings revealed just one statement with a "moderate" degree of visitor satisfaction, namely the garbage bin facility, which had a mean score of 3.12. According to the researcher's observations, the availability of trash cans in some parts of the fishing pond is still limited and insufficient, especially during the saltwater pond fishing competition. Visitors would face trouble to dispose their trash properly, especially when the huge number of visitors come during fishing competitions. According to Mustafa et al. (2007), customer satisfaction is critical to a company's performance since consumers will evaluate features of facilities and services both directly and indirectly. As a result, in order to preserve the quality of a business premises, including the fishing pond operation, amenities such as rubbish bins should be given a proper care.

#### 6. Conclusion

Fishing is a popular recreational sport that has grown in recent years as a way to spend leisure time with friends and family. Those engaged in recreational fishing activities are interested in the existence of freshwater and saltwater fishing pond operations, whether natural or man-made. The Ko-Nelayan Laya-Laya Marine Fishing Pond (KPIMKL) in Tuaran is unique by not only offering a diverse range of fish species and sizes, but also providing comprehensive services and facilities to visitors. Most visitors are very satisfied with most of the facilities and services supplied, according to one research regarding the visit profile of recreational anglers as well as a study of the degree of satisfaction with the facilities and services at KPIMKL. Fishing ponds in different places may have varied experiences and results, not to mention freshwater ponds and saltwater ponds differ in terms of location and even the sort of fish fished. As a result, not only the findings of this study are significant and relevant to current fishing operators, it also beneficial to those who want to become fishing operators in the future. Given the paucity of research on recreational fishing activities at the national level, particularly in Sabah, the findings of this study are important as a source of documentation and literature for policymakers, developers, and academics to review.

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