



Research Article

Fishermen's Satisfaction with the Services of Fisherman Identity Card: A Case from Rural Bangladesh

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Abstract | The Department of Fisheries (DoF) has been working in Bangladesh to provide efficient and effective services using Identity (ID) Cards to all categories of fishermen who are involved in inland capture fisheries and marine fisheries. The fisherman ID card services are essential in ensuring the capacity for management, control, and surveillance to manage fisheries effectively and eradicate illegal fishing. To address this issue, we conducted a study to gauge the fishermen's satisfaction level with the services provided by fisherman identity cards. We conducted the study in two unions of Madarganj upazila (sub-district) under Jamalpur district. A Likert-type scale was used to identify the services the respondents mostly received. For each of the statements, they were asked to indicate whether they strongly agree, agree, disagree, strongly disagree with a corresponding score of 4, 3, 2, and 1, respectively. One hundred twenty fishermen were interviewed for data collection with a structured interview schedule in the selected unions from August 20 to September 22, 2022. The highest proportion of the respondents (86.68%) had a medium level of satisfaction, while 9.16% had a low and 4.16% had a high level of satisfaction regarding services provided through the fisherman ID card. Furthermore, providing rice during ban season, forming fishermen cooperative societies, and taking a lease of government open water bodies were the essential services received by the respondents using their ID cards. Among the selected characteristics of the fishermen, credit received, perceived economic return, extension media contact, organizational participation, and attitude towards extension service providers were identified as the influential factors affecting their level of satisfaction. As most of the fishermen had a medium level of satisfaction, concerned authorities should be more careful and take the initiative to make the services easier and more effective for the fishermen to maintain this current level of satisfaction.

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Introduction

Bangladesh is a country located in the northeastern region of the South Asian subcontinent,

characterized by numerous rivers and extensive coastal lands along the Bay of Bengal to the south (Islam *et al.*, 2021). The majority of the country is drained by the Padma, Brahmaputra, and Meghna rivers, forming one

of the world's largest river systems (Khan *et al.*, 2019). The fishing sector has been essential for Bangladesh's socioeconomic development from ancient times (Rahman, 2017). It is a part of our cultural heritage. Historically, many people in this country relied on the fish from different natural water bodies like beels, haors, baors, rivers, and seas (Hasan *et al.*, 2018). The underprivileged fishermen population in our country relies primarily on fishing for their livelihood (Ahmed, 2018). Capture fisheries and aquaculture contributed 1.24% of total export earnings, 26.50% of the country's agricultural GDP, and 3.57% of the overall GDP (Halim and Nabi, 2022). Approximately 12 million individuals in the country, or over 7.05% of the total population, are engaged in activities related to the fishing sector (Rahman *et al.*, 2020).

The fishermen's community in Bangladesh is considered one of the most impoverished and susceptible groups in society (Das *et al.*, 2015). Islam (2013) observed that marginalized fishermen in Bangladesh encounter several internal and external challenges. Vulnerabilities differ among households in the same fishing community. The challenges encompass reduced per-unit catches, constrained revenue, financial assistance from banks through low-interest loans, inadequately maintained fishing vessels, unreliable weather predictions, absence of alternate sources of income, and unfavorable fish marketing conditions. In addition, the Hilsa and coastal fishing communities face seasonal unemployment due to unfavorable weather conditions and a 65-days ban on fishing to protect brood coastal and marine fish. Special food security measures are offered during this time to support the sustainable growth of fisheries (BILS, 2021). A total of 1.252 million people fall within this group, and the 2020–21 fiscal year's budget for this program was 44.66 crore Bangladeshi Taka (BDT) (Bangladeshi currency: 1USD= 110 BDT). This effort focuses on providing subsistence support and promoting sustainable fishing, specifically in managing Hilsa resources for rural working-age residents (DoF, 2022).

The government has initiated a commendable effort to register all the nation's fisherman and provide identity cards (Islam *et al.*, 2018). Under the Department of Fisheries (DoF) development initiative, 1.620 million fishermen are registered, and 1.420 million are given ID cards. This activity is part of the revenue budget's initiative to provide grants and financial assistance

to fishermen's families. In the 2020–21 fiscal year, 20,000 participants received 0.25 crore BDT money for an effort that involved updating fishermen registration and issuing them identity cards (DoF, 2022). According to the Department of Fisheries (DoF), obtaining a Fisherman ID card is easy and allows individuals to access services provided by DoF (Sharifuzzaman *et al.*, 2018). This ID card service offers rice during ban season, establishes alternative income-generating opportunities for fisherman, facilitates the leasing of government open water bodies, and is applicable for fishermen cooperative societies (Islam *et al.*, 2018). Due to the local government's revised roster of licensed fishermen, they are eligible for social security benefits during fishing prohibition times. This is a significant advancement, as many of them lack income during fishing bans implemented to curb overfishing. If fishermen obtain satisfactory services through an identity card, they will be self-motivated to comply with instructions during ban periods by the Department of Fisheries. The Department of Fisheries should offer various support services to fishermen promptly, especially during emergencies. The policy makers can simultaneously modify the current policy. It is essential to investigate fishermen's satisfaction with the identity card to ensure the sustainable livelihood of fishermen and the overall development of the fishing sector. No research has been undertaken to determine the satisfaction level of fishermen who carry the ID card and the services they really receive with this card. So, considering the above scenario, this study was conducted considering the following objectives.

- To assess the level of satisfaction of the fishermen with fisherman ID card services
- To identify the services provided by the DoF using fisherman ID cards
- To explore the factors associated with fishermen's level of satisfaction with fisherman ID card services.

Materials and Methods

Study area

The study was conducted in five purposively selected villages, namely Char Chadpur, Dakshin Gaber Gram, Tartapara, Char Shuvogasa, and Sukhnagari of Balijuri Union and Madarganj Paurashava of Madarganj Upazila (sub-district) under Jamalpur district (Figure 1). These areas have card-holder fishermen, which is a significant achievement for the fisheries department. For this reason, the researchers selected these two areas of Madarganj purposefully to conduct research

emphasizing fishermen’s satisfaction levels.

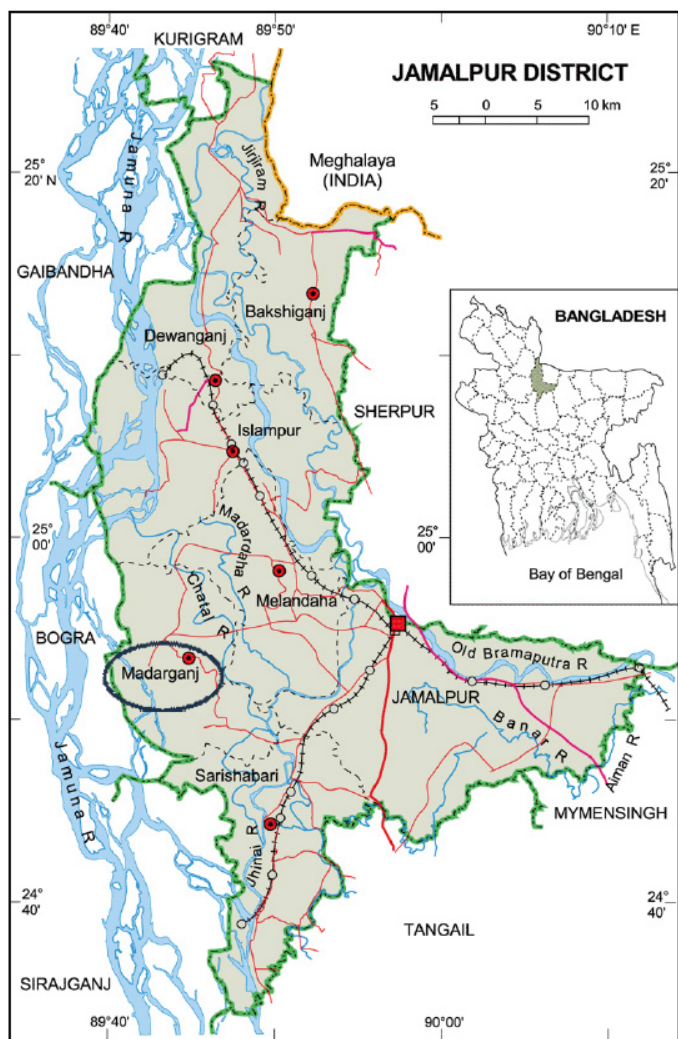


Figure 1: Map of Jamalpur district showing the study upazila (sub-district).

Population and sampling design

An updated list of all fishermen was collected from the Upazila Fisheries Office (UFO). There are 1866 fisherman ID card holders in the Madarganj Upazila. In this Upazila, we have selected one union, Balijuri, and one paurashava, Madarganj Paurashava. 493 fishermen in these selected areas are engaged in fisheries activities and received fisherman’s ID card services provided by UFO. So, these 493 fishermen were the target population of this study (Table 1). A sample of 120 (i.e., 25%) was determined by an online-based sample calculator (<http://www.calculator.net>) with an 80% confidence level and a 5% margin of error. A random sampling process produced the final list of 120 fishermen.

Methods of data collection

In the research area, 15 fishermen participated in a pre-test of the interview schedule. We performed

the necessary fixes and alterations based on the pre-test experiences before finalizing the interview schedule for data collection. To obtain accurate and trustworthy data, the researchers personally surveyed the respondents. Data from the respondents was gathered by the researcher personally. The researcher methodically posed questions and provided justifications as necessary. Data collection took place between August 20 and September 22, 2022.

Measurement of variables and analysis of data

Identifying fishermen’s satisfaction levels was the first objective of the study. Thirteen (13) statements on various aspects of satisfaction were asked to the fishermen. A Likert-type scale was used to identify the services the respondents mostly received. For each of the statements, they were asked to indicate whether they strongly agree, agree, disagree, strongly disagree with a corresponding score of 4, 3, 2, and 1, respectively. Hence, the total score of a fisherman could range from 13 to 52; a score of 13 indicates a low level of satisfaction, and a score of 52 represents a high level of satisfaction with the fisherman’s ID card services. Ganpat et al. (2014) also used this method to determine the satisfaction level of the fishermen.

The third objective of the study, to identify factors associated with fishermen’s level of satisfaction, was identified by regression analysis. The linear regression analysis equation is as follows (Equation 1).

$$y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \epsilon_i \dots (1)$$

Where, y_i = fisherme’s satisfaction, β_0 = constant, X_1 = age, X_2 = education, X_3 = household size, X_4 = farm size, X_5 = annual family income, X_6 = experience in fishing, X_7 = credit received, X_8 = extension media contact, X_9 = organizational participation, X_{10} = perceived economic return, X_{11} = attitude towards extension service providers, ϵ_i = Error term.

Table 1: Distribution of population and sample size of the fishermen in the selected area.

Name of the Upazila (sub-district)	Name of the Union	Total no. of fishermen with ID card (population)	Sample size (n)
Madarganj	Madarganj Paurashava	258	63
	Balijuri	235	57
Total		493	120

Source: Office documents, 2022, Upazila Fisheries Office, Madarganj, Jamalpur.

Table 2: Characteristics profile of the fishermen (n=120).

Characteristics (Measuring units)	Range		Respondent categories	Respondents		Mean	SD*
	Possible	Observed		Number (n=120)	Percent (%)		
Age (Actual years)	Unknown	23-78	Young (18-35)	26	21.7	45.51	11.34
			Middle (36-50)	54	45		
			Old (above 50)	40	33.7		
Educational level (Years of schooling)	Unknown	0-10	Illiterate (0)	79	65.8	2.08	3.14
			Primary (1-5)	24	20		
			Secondary (6-10)	17	14.2		
			Above secondary (>10)	0	0		
Household size (No. of members)	Unknown	2-10	Small (2- 4)	30	25	5.36	1.25
			Medium (5-6)	75	62.5		
			Large (above 6)	15	12.5		
Farm size (Hectare)	Unknown	0-1.408	Landless (up to 0.02)	46	38.3	0.05	0.16
			Marginal (.021-0.2)	69	57.5		
			Small (0.21-0.99)	3	2.5		
			Medium (1.00-3.00)	2	1.7		
			Large (>3)	0	0		
Annual family income ('000' Tk)	Unknown	45-300	Low (up to 150)	84	70	119.44	62.45
			Medium (151-300)	36	30		
			High (above 300)	0	0		
Experience in fishing (Years)	Unknown	3-55	Low (up to 14)	11	9.2	27.38	11.67
			Medium (15-29)	53	44.1		
			High (above 29)	56	46.7		
Credit received ('000' Tk)	Unknown	0-150	No credit (0)	47	39.2	21.49	27.41
			Low (1-50)	66	55		
			Medium (51-100)	4	3.3		
			High (above 100)	3	2.7		
Extension media contact (scale score)	0-30	8-17	Low (1-10)	8	6.7	13.43	1.78
			Medium (11-20)	112	93.3		
			High (above 20)	0	0		
Organizational participation (scale score)	0-8	1-4	No participation (0)	0	0	2.01	0.75
			Low (1-2)	94	78.3		
			Medium (3-4)	26	21.7		
			High (above 4)	0	0		
Perceived economic return (scale score)	0-10	2-9	Low (up to 3)	16	13.33	5.05	1.64
			Medium (4-6)	82	68.33		
			High (above 6)	22	18.33		
Attitude towards extension service providers (scale score)	8-32	9-29	Slightly favorable (up to 11)	10	8.33	19.4	4.96
			Moderately favorable (12-22)	79	65.83		
			Highly favorable (above 22)	31	25.83		

Source: Field Survey, 2022, Note: SD stands for Standard Deviation.

Results and Discussion

Selected characteristics of the respondents

The data presented in Table 2 shows that most of the

fishermen (45%) were middle-aged, with 21.7% being young and 33.7% old. Middle and old-aged people together constitute 78.7%. Therefore, it could be said that satisfaction regarding fisherman ID card services

in the study area was expected to be considerably influenced by the middle and old-aged fishermen. Again, Table 2 states that middle and old-aged fishermen in the study area could be more concerned about the fishermen’s activities. It is assumed that the aged fishermen might have comparatively more capacity to determine their satisfaction level with fisherman ID card services; with the passage of time, they gain more experience. These findings are in line with the findings reported by Ahmed (2017), Kavaskar et al. (2014), Inavati et al. (2014), Tochwawng and Rewani (2013), and Ali (2012). Data shows that the literacy rate was 34.2, which is lower than the national literacy rate of 72.3% (BBS, 2020). Ahmed (2017) and Rahman (2019) found similar results.

Again, the highest proportion of the fishermen (57.5%) had marginal farm size, whereas 38.3%, 2.5%, and 1.7% had landless, small, and medium farm size, respectively. No respondent was found in the large category. The highest proportion of the fishermen (70%) were in the low-income category, whereas 30% were in the medium category. No respondent was found in the high category. The findings indicate that all of the fishermen (100%) were in the low to medium-income category. The data shows that 46.7% of the respondents had high experience, while 44.1% had medium experience.

Furthermore, the highest proportion (55%) of the fishermen had received low credit, 39.2% had no loan, 3.3% had medium, and 2.7% had received high credit, respectively. Table 2 presents data indicating that the majority of fishermen (93.3%) had medium extension media contact, 6.7% had slight extension media contact, and no one had high extension media contact. Asif (2016) and Ali (2012) found similar results.

Table 2 presents data indicating that 78.3% of the fishermen had low organizational participation, 21.7% had medium participation, and no respondent

had high organizational participation. A significant portion of the fishermen had a low level of participation, which is undoubtedly very alarming. More than two-thirds (68.33%) of the respondents perceived a medium level of economic return, while only 18.33% perceived a high level of economic return. Lastly, a great portion of the respondents had a moderately to highly favorable attitude, and only 8.33% showed a slightly favorable attitude towards the extension service providers.

Services received by fishermen through fisherman’s ID card
The data presented in Table 3 shows the services received by fishermen under fisherman ID cards. The first-ranked service showed that most of the fisherman ID card holders were occasionally provided rice during ban season (mean score of 1.95). Id card holders can form fishermen cooperative societies” was the second-ranked service with a mean score of 1.33. The last rank service of the selected area was “created alternative income generating sources for the fishermen” (mean score of 0.54), which was not working correctly in the selected area.

The respondents were grouped based on the services they received (Figure 2). Most of the respondents received a medium level of service using their ID cards. Only 5% of the respondents remained in the low category, while 6.75% received information about obtaining more services.

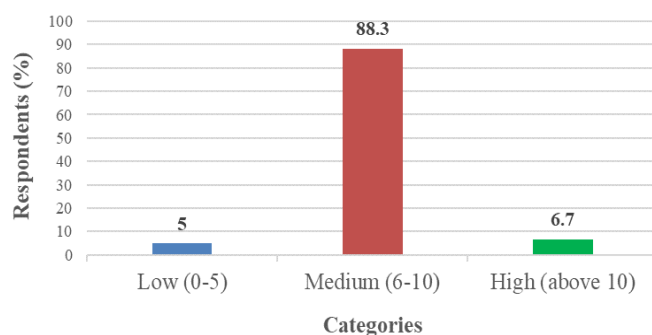


Figure 2: Categorization of the respondents based on their received services through fisherman ID card.

Table 3: Rank order of the services received by fishermen under fisherman ID card.

S. No.	Services	Extent of services received				Mean	Rank order
		N (0)	S (1)	O (2)	F (3)		
1	Provide rice during the ban period	2	10	100	8	1.95	1
2	Created alternative income-generating sources for the fishermen	80	20	15	5	0.54	5
3	Unused government land is leased by digging ponds at cheap rates to fishermen	60	6	50	4	0.98	4
4	Plays a helpful role in taking a lease of government open water bodies	45	15	50	10	1.20	3
5	Fisherman card holders can form fishermen cooperative societies	30	40	30	20	1.33	2

N= Never, S= Seldom, O= Occasionally, F=Frequently.

Level of satisfaction of the fishermen towards fisherman ID card services

To capture fishermen’s satisfaction with fisherman ID card services, Table 4 presents the percentage responses to each statement. Concerning the overall level of satisfaction, mean frequencies suggested that 51.69% of fishermen expressed some level of satisfaction (37.23% of fishermen strongly agreed with the statements, and 14.46% of the fishermen agreed with the statements). In comparison, 68.31% expressed some level of dissatisfaction (22.46% disagreed with the statements, and 45.85% strongly disagreed). The statement with the highest level of agreement was, the services of the fisherman ID card aren’t affected by political influences (93.3% of fishermen strongly agreed and 6.7% agreed). Also high in satisfaction was it is very easy to get a fisherman ID card without any hustle (87.5% of fishermen strongly agreed, 0.8% agreed, and 11.7% disagreed).

On the other hand, the statement where most fishermen are not satisfied was it has established economic stability through giving interest-free credit to the fishermen. Most fishermen (94.2% of the fishermen strongly disagreed with this statement,

another 3.3% disagreed, and 2.5% agreed). Similarly, fishermen strongly disagreed with the statement, “After natural hazards or emergencies, fisherman ID Card services help the fishermen by providing nutritional foods, clothes and money” (93.3%, 3.3%, and 3.3% of the fishermen strongly disagreed, disagreed, and agreed, respectively). There were mixed levels of satisfaction with statements such as this service has increased the social participation of poor rural fishermen.

BILS (2021) conducted a study on ‘Sector-wide Human Rights Impact Assessment (SWIA) in small-scale artisanal fishing communities in Barguna and Cox’s Bazar district of Bangladesh’. It revealed that fishermen complained about the lack of a clear policy defining the criteria for issuance of the fisherman ID Card, which is used as a basis for receiving allowances specifically targeting fishermen during e.g. fishing ban periods. Social Safety Nets in Bangladesh are implemented via direct cash transfers to beneficiaries, while the allowances fishermen received during bans consist in rice. Fishermen showed their preference in receiving cash instead of rice.

Table 4: Rank order of the statements related to fishermen’s satisfaction.

S. No.	Services	No. of respondents (n=120)				Mean	Rank order
		SD	D	A	SA		
1	The ID card service has ensured the food security of fishermen by providing necessary foods	102	6	11	1	1.26	9
2	It has established economic stability by giving interest-free credit to the fishermen	113	4	3	0	1.08	13
3	This service provides incentives if an ID card-holder fisherman dies while catching fish	7	6	61	46	3.22	5
4	This service has increased the social participation of poor rural fishermen	11	77	32	0	2.17	7
5	This ID card service has created alternative earning facilities for the fishermen	109	8	2	1	1.13	10
6	It is very easy to get a fisherman ID card without any hustle	0	14	1	105	3.76	2
7	I am pleased with the services of fisherman ID card	17	58	25	20	2.40	6
8	After natural hazards or emergencies, fisherman ID card services help them, fishermen, by providing nutritional foods, clothes, and money	112	4	4	0	1.10	12
9	The fisherman ID card service is essential for my fishing activities	16	86	16	2	2.03	8
10	I can get timely relief by using my fisherman ID card	1	6	16	97	3.74	3
11	I have not seen any biasness while getting services through fisherman ID card	3	8	9	100	3.72	4
12	I can fulfill my basic needs through a fisherman ID card	105	15	0	0	1.13	11
13	The services of fisherman ID card do not affect by political influences	0	0	8	112	3.93	1
Mean Score of Satisfaction		45.85	22.46	14.46	37.23		

Source: Field Survey, 2022. Note: SA: Strongly Agree; A: Agree; D: Disagree; SD: Strongly Disagree.

Table 5: Distribution of respondents according to their level of satisfaction with fisherman ID card services.

Categories of fishermen (Unit score)	No. of fishermen (n=120)		Mean	Standard deviation
	Number	Percent		
Low-level satisfaction (13-26)	11	9.16	30.58	2.06
Medium level of satisfaction (27-39)	104	86.68		
High level of satisfaction (40-52)	5	4.16		
Total	120	100		

Source: Field Survey, 2022.

Table 6: Summary of multiple linear regression explaining the dependent variable.

	Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	16.061	1.287		12.482	0.000		
Age	0.004	0.017	0.012	0.231	0.818	0.642	1.559
Educational level	-0.052	0.053	-0.044	-0.967	0.335	0.865	1.156
Household size	0.106	0.137	0.036	0.772	0.442	0.830	1.205
Farm size	-0.277	0.996	-0.012	-0.279	0.781	0.915	1.093
Annual family income	0.000	0.003	0.003	0.072	0.942	0.860	1.163
Experience in fishing	-0.016	0.017	-0.052	-0.994	0.323	0.652	1.535
Credit received	0.014	0.006	0.117	2.234	0.028	0.650	1.539
Extension media contact	0.258	0.066	0.201	3.913	0.000	0.680	1.470
Perceived economic return	0.570	0.130	0.254	4.385	0.000	0.533	1.877
Organizational participation	0.433	0.142	0.182	3.041	0.003	0.501	1.994
Attitude towards extension service providers	0.319	0.042	0.430	7.540	0.000	0.550	1.818

n=120, R = 0.898, R² = 0.806, Adjusted R² = 0.787 and F value = 40.907

The fishermen’s satisfaction level with fisherman ID card services was the primary focus of the study. The satisfaction scores of fishermen varied from 25 to 36 against the possible range of 13 to 52, with an average of 30.58 and a standard deviation of 2.06. Table 5 shows the classification of the fishermen into three categories based on the possible range of scores. The findings indicate that most of the fishermen (86.68%) had a medium level of satisfaction with fisherman ID card services, compared to only 9.16% having low satisfaction and only 4.16% having a high level of satisfaction. Table 5 shows that the fishermen’s satisfaction level was medium to low. Parwate et al. found similar findings in their study entitled “Satisfaction of Farmers About Kisan Credit Card in Raipur District of Chhattisgarh, India.”

Factors affecting farmer’s satisfaction level

All of the variables in the regression analysis (Table 6) had a big effect on the satisfaction index that was calculated (F (11, 108) = 40.907, p < 0.01), and these variables explained 80% of the variation in farmers’

satisfaction (R² = 0.80). Multi-collinearity was not a significant issue in the model, as evidenced by the Variance Inflation Factors (VIF) used to identify it as present among independent variables, which were less than 10. Table 6 provides an overview of linear regression. Individual t-tests indicated that the following variables significantly affected fishermen’s satisfaction: Credit received, perceived economic return, extension media contact, organizational participation, and attitude toward extension service providers.

As most of the respondents belong to the low-income category (Table 2), it is obvious that they need credit facilities. So, if fishermen get the desired credit facility by using the provided fisherman card, they will undoubtedly have more satisfaction with the discussed ID card. The research findings (Table 6) indicate a direct correlation between the respondents’ satisfaction level and the credit they receive. Kouadio et al. (2023) conducted a study on the satisfaction level of cocoa farmers with input credit in the Nawa

Region of Côte d'Ivoire and found similar findings. Again, communication is an excellent way of getting updated information about different services and benefits. Fishermen with higher communication with extension personnel, peers, etc. generally have more information regarding the services that they can pursue by issuing the ID card. Thus, extension media contact has a direct and positive relationship with satisfaction level. Therefore, it is an essential factor that significantly impacts satisfaction. [Away et al. \(2022\)](#) conducted a study on the analysis of farmers' satisfaction levels with the performance of agricultural extension agents and found that extension media can play a significant role in enhancing farmers satisfaction levels.

Generally, any facility or provision is measured in terms of economic return. If the fishermen perceive any economic return, like a one-time allowance or compensation, because of having an ID card, they will certainly feel more satisfied. So, perceived economic return plays a significant role in terms of measuring satisfaction level. [Table 6](#) shows that the satisfaction level of the fisherman increased by 1 unit, with a 0.570 unit increase in the perceived economic return. [Elias et al. \(2017\)](#) reported a similar finding that farmers' contentment was substantially correlated with their perceived economic return. Furthermore, organizational participation provides an opportunity for information gathering about different services through their ID card and raising their voice towards achieving those services or benefits. Analysis shows that the satisfaction level increases by one unit for a 0.433 unit rise in organizational participation. This positive and direct relationship makes it an important determining factor in satisfaction. Lastly, the fishermen's attitude towards the extension service providers is important in determining their satisfaction. [Table 6](#) shows that a 0.319-unit rise in attitude towards extension service providers increases the satisfaction level by 1 unit. A positive attitude is created only when farmers receive the desired extension service on time, and this positive attitude will lead to an increase in satisfaction level. So, fishermen's attitude towards extension services is an important factor in determining their satisfaction level. [Elias et al. \(2016\)](#) conducted a study on farmers' satisfaction with agricultural extension service and its influencing factors in North West Ethiopia, where they found that farmers' attitudes towards extension service providers played a significant role in

determining their satisfaction level.

Conclusions and Recommendations

As most respondents had medium levels of satisfaction (86.68%), it is evident that the ID card service is going well. However, only five services are currently provided through a fisherman ID card. Thus, more need-based issues like interest-free credit and support during emergencies might help gain a higher satisfaction level. Again, as satisfaction level depends on several factors, DoF needs to ensure fishermen's participation in extension activities and other fishermen's organizations so that they have a good attitude or impression about extension service providers. DoF should expand fishermen identification and fishing boat registration to strengthen the current fishermen identity card system. It will provide linkage between fishing craft and fishermen ID card databases with a geographic information system (GIS) platform. It will ensure a national fisheries management plan for sustainable harvest of fisheries resources as well as the better livelihood of the fisherman community.

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Novelty Statement

This paper is based on the fishermen's satisfaction with the services offered by the fisherman identity card. This paper will help policymakers in the formulation of strategies so that necessary steps are to be taken to include a greater number of fishermen under ID card services to ensure sustainable livelihood and development.

Author's Contribution

Iffat Ara Mahzabin: Conceptualization, identification of research problem, methodology development, formal analysis and initial draft preparation.

Mohammad Maruf Hasan: Data analysis, initial draft preparation, review and preparation of final version.

Saifur Rahman: Data analysis and final version preparation.

Md. Asaduzzaman Sarker: Methodology development, identification of research problem, and initial draft preparation.

Md. Yeakub Ali: Methodology development, and conduction of data collection, data analysis and initial draft preparation.

Conflict of interest

The authors have declared no conflict of interest.

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