

## **An essay on effectiveness of PMMSY awareness campaign on knowledge and perception of fisheries stakeholders**

**<sup>1</sup>Dr. Thejaswi Kumar J, <sup>2</sup>Dr. Kedarnath, <sup>1</sup>Srinivasa KH, <sup>3</sup>Dr. SR Somashekara and <sup>4</sup>Dr. TJ Ramesh**

<sup>1</sup>Assistant Professor, College of Fisheries, Mangalore, Karnataka, India

<sup>2</sup>Scientist (Plant Protection), ICAR-KVK, Dakshina Kannada, Mangalore, Karnataka, India

<sup>3</sup>Professor, College of Fisheries, Mangalore, Karnataka, India

<sup>4</sup>Senior Scientist (Fisheries), ICAR-KVK, Dakshina Kannada, Mangalore, Karnataka, India

DOI: <https://doi.org/10.33545/26180723.2024.v7.i4e.590>

**Corresponding Author:** Dr. Thejaswi Kumar J

### **Abstract**

The study delves into the effectiveness of the Pradhan Mantri Matsya Sampada Yojana (PMMSY) awareness campaign, analyzing its impact on the knowledge and perception of fisheries stakeholders. The study aims to assess the campaign's success in imparting knowledge, fostering skill acquisition, and driving positive change within the fishing community. Using primary data obtained from participants of the PMMSY awareness campaign, the study employed structured rating scale methodology and correlation analysis to evaluate participants' responses across various indicators. The findings revealed positive participant perceptions regarding the execution, information quality, and utility of the campaign. Notably, participants reported significant skill acquisition and knowledge enhancement across various domains, reflecting the campaign's effectiveness in promoting capacity building and education within the fishing community. However, the study also identifies areas for improvement, such as enhancing interaction opportunities and addressing informational gaps. Moreover, the research highlights the importance of targeting younger demographics in campaigns, as younger participants tend to perceive the campaign more positively. Overall, the research contributes valuable insights into the ongoing discourse on sustainable fisheries management and community development within the context of the PMMSY scheme. The findings provide actionable feedback for refining and optimizing future iterations of the PMMSY awareness campaign, ultimately advancing the goals of sustainable fisheries management and socio-economic development.

**Keywords:** PMMSY awareness campaign, fisheries stakeholders, sustainable fisheries management, skill acquisition, knowledge enhancement

### **1. Introduction**

The success of any awareness campaign lies not only in its execution but also in its ability to effectively impart knowledge, foster skill acquisition, and drive positive change within the target community. In the context of the Pradhan Mantri Matsya Sampada Yojana (PMMSY) awareness campaign, understanding its effectiveness is paramount for assessing its impact on the fishing community and the broader goals of sustainable fisheries management and socio-economic development. The PMMSY awareness campaign aims to raise awareness about the PMMSY scheme among fisher folk and stakeholders, empower them with relevant knowledge and skills, and facilitate their active participation in the sustainable development of the fisheries sector (Pandey, 2015) <sup>[1]</sup>. The campaign seeks to address key challenges faced by the fishing community and promote the adoption of best practices for resource utilization and livelihood enhancement.

Assessing the effectiveness of the PMMSY awareness campaign is essential for several reasons. Firstly, it provides insights into the reception and perception of campaign initiatives among participants, shedding light on strengths

and areas for improvement (Roy *et al.*, 2018) <sup>[2]</sup>. Secondly, it helps gauge the extent to which the campaign has succeeded in achieving its objectives of knowledge dissemination, capacity building, and behavior change within the target audience. Furthermore, understanding the factors contributing to the effectiveness or limitations of the campaign can inform future strategies and interventions aimed at maximizing impact and sustainability (Siddiqui *et al.*, 2020) <sup>[3]</sup>. Whether it's improving communication strategies, enhancing the delivery of technical information, or fostering collaborative learning environments, insights gleaned from the evaluation of the PMMSY awareness campaign can guide evidence-based decision-making and resource allocation for future initiatives.

In this context, this research paper delves deeper into the effectiveness of the PMMSY awareness campaign, analyzing participants' responses across various indicators and discussing the implications for policy, practice, and future research. The research article seeks to contribute to the ongoing discourse on sustainable fisheries management and community development in the context of the PMMSY scheme.

**2. Methodology**

The study was carried out using primary data obtained from the participants of PMSSY awareness campaign jointly organized by National fisheries Development Board (NFDB) and College of Fisheries, Mangalore. The random simple sampling technique was employed for selection of respondents immediately after the completion of awareness campaign. The data was collected from 105 respondents randomly using well structured questionnaire.

To assess participants' responses to various indicators of the PMMSY awareness campaign, a structured rating scale methodology was employed. The rating scale ranged from 0 to 10, with participants asked to rate their perceptions and experiences based on predefined criteria. A structured questionnaire was developed based on the identified indicators. Each indicator was accompanied by a statement or question prompting participants to rate their level of agreement or satisfaction on a scale of 0 to 10.

Correlation analysis was used to examine the relationship between two or more variables. Karl Pearson's correlation coefficient (r) measures the strength and direction of linear relationships between continuous variables (Pearson, 1895) [4].

**3. Result and discussion**

**3.1 Demographic profile of respondents**

The demographic profile of respondents in the study revealed valuable insights into the distribution of participants based on age and gender. The Table 01 provides a breakdown of respondents into three age categories: Young Age (<30 Years), Middle Age (30 to 45 Years), and Old Age (>45 Years). Additionally, it includes information on the gender ratio among the participants.

**Table 1:** Demographic profile of respondents

Particulars	Nos.	Percent
Young Age (<30 Years)	16	15.24
Middle Age (30 to 45 Years)	58	55.24
Old Age (>45 Years)	31	29.52
Gender ratio		
1. Male	80	76.19
2. Female	25	23.81

Among the respondents, 15.24 percent of the total sample falls into the category of young age. Their inclusion in the study was crucial as it represented the perspectives and experiences of the younger generation, who may have distinct attitudes and behaviors compared to older age groups. The majority of respondents belonged to the middle age category (55.24%) which indicated a substantial representation of individuals in their prime working years, likely with diverse experiences and responsibilities related to their occupations and livelihoods. The old age category accounted for 29.52 percent of the sample population. Despite being a smaller proportion compared to the middle age group, the inclusion of older participants was essential for capturing perspectives shaped by extensive experience and potentially different needs and priorities.

The data showed that the majority of respondents were identified as male (76.19%). This gender distribution suggested a higher representation of male participants in the study. Understanding the perspectives and experiences of

male participants is crucial for comprehensively assessing the impact of the PMMSY awareness campaign across different gender groups. However, Female respondents accounted for 23.81 percent of the total sample. While this proportion was smaller compared to male respondents, the inclusion of female participants is essential for capturing gender-specific insights and ensuring gender balance in the study sample. Understanding the unique challenges and perspectives of female participants can inform more inclusive and effective awareness campaign strategies.

**3.2 Distribution of respondents according to employment**

In the study, respondents were distributed across various employment categories, providing insights into the occupational diversity within the sample (Table 02). Among the participants, the largest group consists of fishermen representing 46.67 percent of the total sample. This reflected a substantial presence of individuals directly involved in fishing activities. Additionally, farmers accounted for 20.00 percent of the sample, highlighting the representation of agricultural workers in the study. Integrated farmers comprised of 7.62 percent of the sample. Furthermore, commercial business owners were to the tune of 18.10 percent of the sample, indicating the involvement of entrepreneurs in the fisheries industry. The distribution highlighted the diverse roles and occupations within the fisheries sector.

**Table 2:** Distribution of respondents according to employment

Particulars	Nos.	Percent
Fishermen	49	46.67
Farmer	21	20.00
Integrated farmers	8	7.62
Commercial Business	19	18.10
Trader	3	2.86
Department of fisheries	2	1.90
Processor	3	2.86

**3.3 Effectiveness assessment of PMMSY awareness campaign**

The results of the study examining participants' responses to various indicators of the PMMSY awareness campaign shed light on several key aspects of the campaign's effectiveness and reception. These findings suggest that the campaign has generally been positively received by participants, with notable strengths in several areas (Table 03).

Firstly, participants overwhelmingly rated the present status, relevance, and organization of the awareness program positively, with 65.71 percent of the participants giving a rating of 8 or higher. This indicated a high level of satisfaction with the overall execution and alignment of the campaign with participants' expectations and needs. This sentiment is further supported by the high satisfaction levels regarding the composition and grading of information on the awareness campaign, with 55.24 percent of participants rating it as 8 or higher. This suggested that the quality of information provided was perceived to be comprehensive and valuable by the majority of participants which is in line with the opinions obtained in the study conducted by Ahmad (2012) [5]. The issues like poor organization, lack of relevance to their occupation, or ineffective communication

during the campaign coupled with inadequate information or not tailored to the specific needs were the reasons for

stakeholders' low rating.

**Table 3:** Response of participants on different indicators of PMMSY awareness campaign (Rating scale of 0 to 10)

Particulars	Low (<=4)		Moderate (5 to 7)		High (>=8)	
	No.	Percent	No.	Percent	No.	Percent
Present status, relevance and organisation of awareness programme (Variable 1)	18	17.14	18	17.14	69	65.71
Composition and grading of information on awareness campaign (Variable 2)	16	15.24	31	29.52	58	55.24
Usefulness of the awareness campaign in the present occupation of the farmer (Variable 3)	25	23.81	23	21.90	56	53.33
Usefulness of the awareness campaign in the future occupation of the farmer (Variable 4)	22	20.95	29	27.62	54	51.43
Usefulness of interaction/conversation with fellow farmers and scientists during the awareness programme (Variable 5)	20	19.05	33	31.43	52	49.52
Relevance/usefulness of information provided during technical session (Variable 6)	19	18.10	26	24.76	60	57.14
Organisation/relevance/usefulness of information through exhibition in campaign (Variable 7)	13	12.38	25	23.81	67	63.81

Additionally, a significant majority of participants (53.33%) found the awareness campaign to be highly useful in their present occupation which indicated the effectiveness of campaign in addressing the current challenges faced by fish farmers. Moreover, over half of the participants (51.43%) believed that the campaign would be beneficial for their future occupation, suggesting optimism regarding the long-term impact of the campaign on their livelihoods. These findings underscored the perceived utility and potential sustainability of the campaign's initiatives (Roy *et al.*, 2018) [6].

The importance of peer learning and expert guidance in enhancing understanding and adoption of PMMSY initiatives is highlighted by the fact that nearly half of the participants (49.52%) rated the interaction and conversation with fellow farmers and scientists highly. This emphasized the value of collaborative learning environments facilitated by the campaign. However, Participants in the lower rating categories might have felt that the interactions were superficial, lacked substance or did not provide valuable insights. Moreover, the effectiveness of technical sessions in imparting knowledge and skills related to PMMSY objectives was evident, with the majority of participants (57.14%) found the information provided during technical sessions were highly relevant and useful. This suggested

that the campaign successfully met its objectives of disseminating technical information and building capacity among participants. Other factors like technical jargon and difficulty in understanding complex concepts were perceived reasons for low rating during the campaign and same reasons were quoted by Pandey (2015) [7].

Finally, the high rating was received by the exhibition component of the awareness campaign (63.81% expressing satisfaction) indicated that participants found the organization, relevance, and usefulness of information presented through exhibitions to be commendable. This suggested that the campaign effectively utilized interactive and visual elements to engage participants and communicate key messages (Leagans, 1961) [8].

**3.4 Age-Perceived Attributes Correlation Analysis in PMMSY Awareness Campaign**

The correlation matrix revealed several insights regarding the relationship between age and various attributes of a PMMSY (Pradhan Mantri Matsya Sampada Yojana) awareness campaign (Table 04). Firstly, there is a negative correlation between age and almost all other factors, suggesting that younger participants tend to perceive the campaign more positively across different dimensions.

**Table 4:** Correlation matrix between age and other perceived attributes of campaign

Particulars	Age	Var 1	Var 2	Var 3	Var 4	Var 5	Var 6	Var 7
Age	1.0000							
Var 1	-0.0352	1.0000						
Var 2	-0.1181	0.8551	1.0000					
Var 3	-0.0112	0.6887	0.7222	1.0000				
Var 4	-0.0054	0.7044	0.7455	0.8536	1.0000			
Var 5	-0.1018	0.6519	0.7251	0.7734	0.8151	1.0000		
Var 6	-0.0932	0.6592	0.6887	0.7558	0.7377	0.8008	1.0000	
Var 7	-0.0554	0.7071	0.7644	0.6122	0.6397	0.6582	0.6107	1.0000

The correlation coefficient between age and the present status, relevance, and organization of the awareness program is -0.0352, indicating a weak negative correlation. This implied that younger individuals were slightly more likely to perceive the current state and organization of the awareness program more positively compared to older individuals. Similarly, age shows a moderate negative correlation with the composition and grading of information

on the awareness campaign (-0.1181). Younger participants tend to rate the quality and structure of information more favorably than their older counterparts. This notion is supported by studies such as those by Smith *et al.* (2016) [9], which found that younger generations are more likely to embrace and engage with information presented in digital formats compared to older generations.

The negative coefficients across various attributes suggest that younger participants perceived awareness campaign more positively than older participants. This highlighted the importance of targeting and engaging younger demographics in such campaigns, as they may be more receptive to the information and activities offered. Additionally, it underscores the need for tailoring campaign strategies to appeal to different age groups effectively. The positive coefficients between different attributes indicated the complementary effect among each other. This observation is consistent with studies such as those by Venkatesh *et al.* (2003) <sup>[10]</sup>, which propose that perceived usefulness is a critical factor influencing individuals' acceptance and adoption of technology, including information campaigns.

### 3.5 Enhancing Skills and Knowledge through the PMMSY Awareness Campaign

The impact of the PMMSY awareness campaign on skill acquisition and knowledge enhancement is evident from the detailed results presented in the Table 05. Across various categories, participants reported significant levels of learning and improvement. In terms of learning new skills, the majority of respondents indicated that they acquired new skills in areas such as new ideas/concepts/techniques (45.71%), business ideas (43.81%), and SWOT analysis (41.90%). This indicated that the campaign effectively introduced participants to novel concepts and techniques relevant to their occupations. Such skill acquisition is crucial for enhancing productivity and innovation within the fishing community (Dixon *et al.*, 2018) <sup>[11]</sup>.

**Table 5:** Impact of PMMSY Awareness Campaign on Skill Acquisition and Knowledge Enhancement

Particulars	Learnt new skill		Improvement in knowledge level of already known skill		No new learning		Total
	No.	Percent	No.	Percent	No.	Percent	
New idea/concept/technique	48	45.71	43	40.95	14	13.33	105
Communication skill	36	34.29	60	57.14	9	8.57	105
Risk management	37	35.24	45	42.86	23	21.90	105
Problem solving	40	38.10	49	46.67	16	15.24	105
Market assessment	32	30.48	56	53.33	17	16.19	105
Creativity	39	37.14	54	51.43	12	11.43	105
Decision making	38	36.19	46	43.81	21	20.00	105
Business idea	46	43.81	39	37.14	20	19.05	105
Capacity to organize/coordinate	36	34.29	54	51.43	15	14.29	105
SWOT Analysis	44	41.90	47	44.76	14	13.33	105
	New information		Improvement in the known information		No new learning		
PMSSY Scheme	55	52.38	42	40.00	8	7.62	105
	Because of new information		Because of better understanding during the campaign		No change		
No new learning	49	46.67	44	41.90	12	11.43	105

Additionally, participants noted improvements in their knowledge levels for already known skills, with notable percentages reporting enhancements in communication skills (57.14%), market assessment (53.33%), and decision making (43.81%). This suggested that the campaign not only introduced new concepts but also deepened participants' understanding of existing skills. Effective communication and market assessment are essential for success in the fishing industry, facilitating interactions with stakeholders and informed decision-making (Aithal *et al.*, 2019) <sup>[12]</sup>. The campaign's contribution to enhancing these skills aligns with its goal of fostering capacity building and professional development within the fishing community. Moreover, the campaign facilitated the acquisition of new information, particularly regarding the PMSSY Scheme, with 52.38 percent of respondents attributing their new knowledge to the campaign. This reflected the effectiveness of the campaign in disseminating information about the scheme. It also underscored the campaign's effectiveness in disseminating information about government schemes and policies targeted at the fishing community. Access to accurate information about such schemes is vital for participants to avail themselves of relevant benefits and support (Asante *et al.*, 2016) <sup>[13]</sup>. By enhancing awareness and understanding of the PMSSY scheme, the campaign empowers participants to make informed decisions and take advantage of available resources for their socio-economic

advancement. Furthermore, the campaign contributed to better understanding among participants, with 40 percent citing improved comprehension due to the campaign. Clear communication and effective knowledge dissemination are essential for educational interventions to be successful (Siddiqui *et al.*, 2020) <sup>[3]</sup>. The campaign's focus on facilitating comprehension reflects its commitment to promoting meaningful learning experiences and ensuring that participants can effectively apply acquired knowledge in their contexts.

### 4. Conclusion

The study high light several strengths of the PMMSY awareness campaign, including positive participant perceptions regarding its execution, information quality, utility, and effectiveness in facilitating learning and engagement. However, the results also indicate potential areas for improvement, such as further enhancing interaction opportunities and addressing informational gaps. These insights provide valuable feedback for refining and optimizing future iterations of the PMMSY awareness campaign. The correlation matrix high light the importance of targeting younger demographics in campaigns and understanding the preferences and perceptions of younger individuals can help optimize the design and implementation of future awareness initiatives, ensuring

greater effectiveness and engagement across different age groups. The results also demonstrate the multifaceted impact of the PMMSY awareness campaign on skill acquisition and knowledge enhancement among participants. The campaign effectively facilitated both learning new skills and improving existing ones across various domains, contributing to the overall empowerment and capacity building of participants within the fisheries and aquaculture sector.

## 5. References

1. Pandey A. Fisheries Extension and Fishermen Awareness Programmes: A Study of Selected Schemes in Maharashtra. *J Extension Educ.* 2015;27(1):5469-5474.
2. Roy T, Dey MM, Das N, Viswanathan KK. Evaluating awareness, interest and adoption of Government policy among shrimp farmers in India. *Fish Aquacult J.* 2018;9(2):1-8.
3. Siddiqui F, Kurian S, Ahuja R. Effective communication in rural development: A study of information dissemination for farmers in India. *Indian J Public Adm.* 2020;66(2):289-303.
4. Pearson K. Notes on regression and inheritance in the case of two parents. *Proc R Soc Lond.* 1895;58(347-352):240-242.
5. Ahmad N, Singh SP, Parihar P. Farmers assessment of KVK training programme. *Econ Aff.* 2012;57(2):165-168.
6. Roy A, Das BK, Chandra G, Das A, Raman RK. Knowledge and skill development of Bihar farmers on inland fisheries management: A terminal evaluation. *Indian J Fish.* 2018;65(2):119-123.
7. Pandey KD, DE KH. Entrepreneurial behavior of tribal fish farmers in Tripura, north-east India. *Indian J Fish.* 2015;62(1):149-152.
8. Leagans HE. The effectiveness of visual elements in awareness campaigns. *J Commun.* 1961;11(2):78-89.
9. Smith A, Duggan M, Perrin A. Digital technology and the internet's impact on society. *Pew Res Center.* 2016;12:24.
10. Venkatesh V, Morris MG, Davis GB, Davis FD. User acceptance of information technology: Toward a unified view. *MIS Q.* 2003;425-478. DOI: 10.2307/30036540.
11. Dixon JA, Scura LF, Carpenter RA, Sherman PB. Economic analysis of environmental impacts. *Routledge.* 2018;25:29.
12. Aithal PS, Shubhrajyotsna Aithal S, Kumar PM. SWOT Analysis of Fishing Industry in Coastal Karnataka. *Int J Manag Technol Soc Sci (IJMTS).* 2019;4(2):1-19.
13. Asante FA, Asare A, Aboagye E, Osei-Kwasi HA, Adu KK, Poku KA. Knowledge, Attitudes, and Practices of Fisheries Management Committees in Ghana. *Int J Fish Aquat Stud.* 2016;4(3):25-32.