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ANTECEDENTS AND MANAGERIAL EFFICIENCY OF THE INLAND FISH FARMERS

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ABSTRACT

The study was carried out in Anand district of Gujarat state with 150 randomly selected inland fish farmers. A pre-tested interview schedule was prepared in light of the objectives and respondents were interviewed either at their home or work place. Ex-post facto research design was used. For measurement of variables, different scales and scoring techniques were used. The result designated that majority of inland fish farmers had medium to high level of knowledge regarding fish farming management practices, ability in planning, ability in coordinating activities, budgeting ability, competence in evaluation of situation and market orientation with very high to medium level of adoption of scientific inland fish farming practices and neutral to favourable attitude towards inland fish farming with low to medium level of information seeking ability, ability to make rational decisions and ability to mobilize resources. Among all the indicators which determine the managerial efficiency, Market orientation performed best followed by attitude towards inland fish farming, competence in evaluation of situation, ability in planning, knowledge regarding fish farming management practices, budgeting ability, ability to make rational decisions, information seeking ability and ability to mobilize resources, whereas ability in coordinating activities and adoption of scientific inland fish farming practices were not up to the mark. The overall managerial efficiency of inland fish farmer was found to be 57.10 per cent. The result amongst the nineteen selected variables of the of inland fish farmers in the study education, caste, annual income, participation in training, contact with extension agency, exposure to agricultural mass media, pond size, economic motivation, risk orientation, achievement motivation, scientific orientation, innovation proneness and self confidence had establish positive and significant relationship with the managerial efficiency of inland fish farmers, whereas age and social participation failed to show any significant influence on the managerial efficiency of inland fish farmers.

Keywords: *managerial efficiency, fish farmers, relationship*

INTRODUCTION

There is a huge untapped potential in fisheries and aquaculture, which can contribute considerably to improve the livelihoods as also women empowerment. The future development of aquaculture depends on adoption of new and innovative production technologies, management and utilization of less utilized water resources and proper market tie-ups. Fish farmer are engaged in the various activities of fish farming and the most important activity from those which has provided them better way of living (Makwana and Bhatt, 2021). With the help of technological innovations, greater degree of specialist availability and power of human resource has developed lot. However, in this process fish farmers' efforts was involved and that have risen to management and hence, it is an important factor to utilize these available resources and accumulate capital in effective manner. Raising managerial efficiency or improving the quality of human factor is of paramount importance and will open up new vistas for inland fish farmers and make possible for them to achieve substantial gains in farm income (Vinaya and Shivamurthy, 2021). There is a great scope for raising managerial efficiency and economic performance through manipulation in various factors which determines the managerial efficiency of an individual besides different factors of production for effective and efficient utilization of various availed resources.

OBJECTIVE

(1) To study the managerial efficiency of the inland fish farmers

(2) To find out the relationship between the profile of the inland fish farmers and their managerial efficiency

METHODOLOGY

The study was carried out in Anand district of Gujarat state. The basic information concerning the study was

collected from the records of district, taluka as well as village panchayat and office of the Fisheries Development Officer of Anand district. 150 inland fish farmers were proportionately and randomly selected out of total 464 inland fish farmer from all the eight talukas. A pre-tested interview schedule was prepared in light of the objectives and respondents were interviewed either at their home or work place. Ex-post facto research design Kerlinger, (1976) was used. For measurement of variables included in study, different scales and scoring techniques were used.

RESULTS AND DISCUSSION

Different indicators played an important role in determining the managerial efficiency of inland fish farmers. In this study, eleven indicators were judged for determining the managerial efficiency and the data reflecting their level with respect to all eleven indicators are presented in Table 1.

Table 1: Fish farmers according to different indicators which determines the managerial efficiency (n = 150)

Sr. No.	Indicators	Category	Frequency	Per cent
1	Knowledge regarding fish farming management practices	Very low (0 to 6.20)	00	00.00
		Low (6.21 to 12.40)	35	23.33
		Medium (12.41 to 18.60)	45	30.00
		High (18.61 to 24.80)	45	30.00
		Very high (24.81 to 31.00)	25	16.67
2	Ability in planning	Very low (9.00 to 16.20)	35	23.33
		Low (16.21 to 23.40)	12	08.00
		Medium (23.41 to 30.60)	48	32.00
		High (30.61 to 37.80)	37	24.67
		Very high (37.81 to 45.00)	18	12.00
3	Information seeking ability	Very low (7.00 to 12.60)	24	16.00
		Low (12.61 to 18.20)	34	22.67
		Medium (18.21 to 23.80)	58	38.67
		High (23.81 to 29.40)	23	15.33
		Very high (29.41 to 35.00)	11	07.33
4	Ability in coordinating activities	Very low (4.00 to 7.20)	43	28.67
		Low (7.21 to 10.40)	19	12.67
		Medium (10.41 to 13.60)	53	35.33
		High (13.61 to 16.80)	33	22.00
		Very high (16.81 to 20.00)	02	01.33
5	Adoption of scientific inland fish farming practices	Very low (0 to 1.60)	00	00.00
		Low (1.61 to 3.20)	26	17.33
		Medium (3.21 to 4.80)	20	13.33
		High (4.81 to 6.40)	74	49.34
		Very high (6.41 to 8.00)	30	20.00
6	Ability to make rational decisions	Very low (6.00 to 10.80)	19	12.67
		Low (10.81 to 15.60)	38	25.33
		Medium (15.61 to 20.40)	55	36.67
		High (20.41 to 25.20)	26	17.33
		Very high (25.21 to 30.00)	12	08.00
7	Ability to mobilize resources	Very low (7.00 to 12.60)	21	14.00
		Low (12.61 to 18.20)	41	27.33
		Medium (18.21 to 23.80)	56	37.33
		High (23.81 to 29.40)	16	10.67
		Very high (29.41 to 35.00)	16	10.67
8	Attitude towards inland fish farming	Strongly unfavaourable (13.00 to 23.40)	26	17.00
		Unfavaourable (23.41 to 33.80)	21	14.00
		Neutral (33.81 to 44.20)	47	31.67
		Favourable (44.21 to 54.60)	42	28.00
		Highly favourable (54.61 to 65.00)	14	09.33

Sr. No.	Indicators	Category	Frequency	Per cent
9	Budgeting ability	Very low (4.00 to 7.20)	29	19.33
		Low (7.21 to 10.40)	21	14.00
		Medium (10.41 to 13.60)	60	40.00
		High (13.61 to 16.80)	39	26.00
		Very high (16.81 to 20.00)	01	00.67
10	Competence in evaluation of situation	Very low (5.00 to 9.00)	21	14.00
		Low (9.1 to 13.00)	26	17.33
		Medium (13.1 to 17.00)	66	44.00
		High (17.1 to 21.00)	37	24.67
		Very high (21.1 to 25.00)	00	00.00
11	Market orientation	Very low (4.00 to 7.20)	21	14.00
		Low (7.21 to 10.40)	26	17.33
		Medium (10.41 to 13.60)	60	40.00
		High (13.61 to 16.80)	43	28.67
		Very high (16.81 to 20.00)	00	00.00

(1) Knowledge regarding fish farming management practices

The result specify that more than one forth (30.00 per cent) of the inland fish farmers had medium as well as high level of knowledge regarding fish farming management practices. The probable cause for this might be their medium inland fish farming experience and medium level of education coupled with enough self interest in taking up fish farming activities and participation in training programme conducted by extension functionaries. The results were in conformity with Sarma *et al.* (2013), Jadav (2018) and Makwana (2020).

(2) Ability in planning

The table concluded that nearly one third (32.00 per cent) of the inland fish farmers had medium level of ability in planning. Majority of the fish farmer were intended to plan their activities in advance to ensure good remuneration by minimizing risk in fish farming might be the possible explanation of this type of result. These results were consistent with Reddy, (2006) and Mande, (2015).

(3) Information seeking ability

The result observed that more than one third (38.67 per cent) of the inland fish farmers had medium level of information seeking ability. The probable reason behind this might be medium level of mass media exposure and low to medium level of extension contact. The results were conforming to Prabhu, (2006) and Mande, (2015).

(4) Ability in coordinating activities

The result observed that more than one third (35.33 per cent) of the inland fish farmers had medium level of ability in coordinating activities. Enterprise with more intricate activities requires higher coordination efforts and hence the respondents might have aware that how money, labour and time can be saved by coordinating activities might be the probable reason behind this result. The results were in accordance with Reddy, (2006) and Mande, (2015).

(5) Adoption of scientific inland fish farming practices

The result observed that nearly half (49.34 per cent) of the inland fish farmers had high level of adoption of scientific inland fish farming practices. The possible reason for this might be the moderate to high extent of knowledge of the respondents to fish farming technologies. The results were in agreement with Jadav, (2018) and Makwana *et al.*, (2020).

(6) Ability to make rational decisions

The result indicated that more than one third (36.67 per cent) of the inland fish farmers had medium level of ability to make rational decisions. Decision making concept is highly influenced by close interaction among co-growers, family members and friends. Most of the decisions are influenced by these close members of group dynamics which in turn effect the decision making process of an individual. This might be the probable cause behind the low to medium level of ability to make rational decisions of the respondents. The results were as specified by Mande, (2015).

(7) Ability to mobilize resources

The result revealed that more than one third (37.33 per cent) of the inland fish farmers had medium level of ability to mobilize resources. This might be due to their medium size of ponds and limited resources with low annual income. The results were according to Reddy, (2006).

(8) Attitude towards inland fish farming

The result unfolded that less than one third (31.67 per cent) of the inland fish farmers had neutral attitude towards inland fish farming. Fish farming is not much more remunerate enterprise as expected by the inland fish farmer might be the possible explanation for this type of result. The results were in line with Thorat, (2010) and Patel *et al.,* (2013).

(9) Budgeting ability

The result depicted that exactly two fifth (40.00 per cent) of the inland fish farmers had medium level of budgeting ability. The extent of nature of the respondents to think twice before use their money on certain managerial practices and inputs might be the probable logic behind this. The results were according to Patel *et al.,* (2013).

(10) Competence in evaluation of situation

The result culminated that more than two fifth (44.00 per cent) of the inland fish farmers had medium level of competence in evaluation of situation. It was observed that majority of the inland fish farmers kept records of quantity of produce and prices realized. This might be due to their respective level of experience in fish farming, knowledge level about the practices and mass media exposure. These results were in harmony with Reddy, (2006) and Mande, (2015).

(11) Market orientation

The result unfolded that two fifth (40.00 per cent) of the inland fish farmers had medium level of market orientation. The probable reasons must be the sufficient demand from local market, wherein good price was obtained by the respondents.

Overall managerial efficiency of the inland fish farmers

The data regarding distribution of inland fish farmers according to their overall managerial efficiency towards inland fish farming is presented in Table 2.

Table 2: Inland fish farmers according to their overall managerial efficiency

(n = 150)

Sr. No.	Category	Frequency	Per cent
1	Very low (0 to 20)	00	00.00
2	Low (20.1 to 40)	43	28.67
3	Medium (40.1 to 60)	42	28.00
4	High (60.1 to 80)	64	42.67
5	Very high (80.1 to 100)	01	00.66

The result unfolded that two fifth (42.67 per cent) of the inland fish farmers had high level of overall managerial efficiency. The probable cause behind these results might be the attributed to education, trainings attended, their mass media exposure and the psychological factors. These results were in line with Reddy, (2006), Birajdar *et al.* (2012) and Mande, (2015).

Difference in different indicators which determines the overall managerial efficiency of the inland fish farmers

To study the difference in different components which determines the overall managerial efficiency of the inland fish farmers, one-way analysis of variance was applied to data related to mean per cent score of each indicator of managerial efficiency. The data pertaining to this are propounded in Table 3.

Table 3: The components wise Mean Per cent Scores which determine the managerial efficiency

(n = 150)

Sr. No.	Components	Mean per cent score
1	Knowledge regarding fish farming management practices	57.92
2	Ability in planning	58.61
3	Information seeking ability	56.29
4	Ability in coordinating activities	53.33
5	Adoption of scientific inland fish farming practices	52.20
6	Ability to make rational decisions	57.05
7	Ability to mobilize resources	56.13
8	Attitude towards inland fish farming	59.60
9	Budgeting ability	57.84
10	Competence in evaluation of situation	59.20
11	Market orientation	59.89
12	Overall managerial efficiency	57.10
S.Em±		1.400
C.D (0.05)		3.885
C.V. (%)		30.04

The significant F value shows that, there is significant difference among the different indicators which determine the managerial efficiency of inland fish farmers

hence the null hypotheses (H02), that there is no difference in different indicators of managerial efficiency among the inland fish farmers is rejected.

The mean per cent score of market orientation (59.89) was highest and at par with attitude towards inland fish farming (59.60), competence in evaluation of situation (59.20), ability in planning (58.61), knowledge regarding fish farming management practices (57.92), budgeting ability (57.84), ability to make rational decisions (57.05), information seeking ability (56.29) and ability to mobilize resources (56.13). The ability in coordinating activities (53.33) and adoption of scientific inland fish farming practices (52.20) were inferior to all rest of the indicators. Overall managerial efficiency mean per cent score was 57.10.

Concluding the finding it can be said that among all the indicators which determine the managerial efficiency, Market orientation performed best followed by attitude towards inland fish farming, competence in evaluation of situation, ability in planning, knowledge regarding fish farming management practices, budgeting ability, ability to make rational decisions, information seeking ability and ability to mobilize resources, whereas ability in coordinating activities and adoption of scientific inland fish farming practices were not up to the mark. The overall managerial efficiency of inland fish farmer was found to be 57.10 per cent.

The action of individual farmer is governed by personal, socio-economic, communicational, situational and psychological factors involved in situation. An inland fish farmer shows different degree of perception towards various aspects of the inland fish farming because of the difference in their personal characteristics. Thus, it may be stated that the degree of managerial efficiency of inland fish farmers toward inland fish farming differs with their personal, socio-economic, communicational, situational and psychological characteristics. Hence, considering the importance of these characteristics and review of past research studies, an attempt has been made in this investigation to ascertain the relationship if any, between personal, socio-economic, communicational, situational and psychological characteristics of inland fish farmers and their managerial efficiency.

A statistical method of Karl Pearson's coefficient correlation (r) was used to calculate relationship between the characteristics of inland fish farmers and their managerial efficiency. The result obtained is dispensed in Table 4.

Table 4: Relationship between profile of inland fish farmers and their managerial efficiency

(n = 150)

Sr. No.	Characteristics	Correlation coefficient ('r' value)
X_1	Age	0.117
X_2	Education	0.306**
X_3	Caste	0.370**
X_4	Annual income	0.586**
X_5	Social participation	-0.011
X_6	Participation in training	0.286**
X_7	Contact with extension agency	0.694**
X_8	Exposure to agricultural mass media	0.625**
X_9	Pond size	0.172*
X_{10}	Economic motivation	0.526**
X_{11}	Risk orientation	0.645**
X_{12}	Achievement motivation	0.528**
X_{13}	Scientific orientation	0.678**
X_{14}	Innovation proneness	0.634**
X_{15}	Self confidence	0.575**

* Significant at 0.05 per cent level of probability

** Significant at 0.01 per cent level of probability

(1) Age and managerial efficiency

The data presented in Table 4 clearly revealed that age of the inland fish farmers (r = 0.117) was found non-significantly co-related with their managerial efficiency which implies that irrespective of different age groups of fish farmer, their level of managerial efficiency was uniform. Generally young aged farmers were more enthusiastic in nature with unique power of reception and had ability to interpret the information and ideas and on other hand, old age farmers had greater accumulated experience might have resulted into its non-significant influence on managerial efficiency. Thus, it can be said that age of inland fish farmers was the trivial factor for determination of management efficiency. This result was in conformity with Reddy, (2006), Birajdar *et al.* (2012) and Mande, (2015).

(2) Education and managerial efficiency

It was clear from the data introduced in Table 4 that education of the inland fish farmers had positive and highly significant (r = 0.306**) correlation with their managerial efficiency. Education opens mental horizons of an individual, which resulted in to promotion of analytical thinking to find out different ways and means for getting higher returns in different conditions which ultimately build better perception

and comprehension about different managerial characters which in turn reflected into better managerial efficiency might be the possible explanation of this type of result. Thus education is vital factor in shaping managerial efficiency of inland fish farmer. This finding was in conformity with the finding of Jadav, (2018) and Makwana, (2020).

(3) Caste and managerial efficiency

The data presented in Table 4 indicate that caste of the inland fish farmers had exerted positive and highly significant (r = 0.370**) correlation with their managerial efficiency. It can be inferred that managerial efficiency was observed higher among general and OBC fish farmers than SC and ST as these caste had a relatively high ritual position in the local caste hierarchy which does not allow them to involving in progressive outlook activities and hence they are traditional and orthodox in nature and run fish farming as traditional occupation. Thus caste plays an important role in determination of managerial ability of fish farmer.

(4) Annual income and managerial efficiency

The data furnished in Table 4 shows that annual income of the inland fish farmers had established positive and highly significant (r = 0.586**) correlation with their managerial efficiency. It is clear that money on hand is the key element to facilitate the management of fish farming and this will be operational motives to direct them for making rational decision among the alternatives with them resulted in to development of other traits of management leading to enhancement of managerial efficiency. This finding was in conformity with the finding of Jadav, (2018) and Makwana, (2020).

(5) Social participation and managerial efficiency

The data submitted in Table 4 depicted that there was negative and non-significant (r =-0.011) correlation between social participation of the inland fish farmers and their managerial efficiency. Concluding the finding it can be said that managerial efficiency of fish farmer was similar among the different level of their social participation as it was observed during field survey that majority of the fish farmers were members in co-operative societies where the issues of fish farming are rarely discussed and hence social participation has no role to play in deciding managerial efficiency might be the one of the cause for this finding.

(6) Participation in training and managerial efficiency

The data presented in Table 4 disclosed that participation in training of the inland fish farmers was positively and highly significantly (r = 0.286**) correlated with their managerial efficiency. Thus, Training is the tool by which desired changes in managerial efficiency can be brought about and hence managerial efficiency was higher among those inland fish farmer who have undergone training and thus training provides defreezing of old behaviour and refreezing of new behaviour for managerial aspect coupled with application of new technologies leading to their success in managing their enterprise. Thus, participation in training influenced managerial efficiency of inland fish farmers. This result was in accordance with Birajdar *et al.,* (2012) and Mande, (2015).

(7) Contact with extension agency and managerial efficiency

The data in Table 4 designate that contact with extension agency of the inland fish farmers had shown positive and highly significant (r =0.694**) correlation with their managerial efficiency. It can be inferred that contact with extension agencies by the inland fish farmers enhance their extent of managerial efficiency as more exposure of inland fish farmer to extension agencies, favourably predisposed to acquire information, consequently raising their knowledge and confidence level which might reinforce them to participate in decision making process which in turn reflected in to this types of result. Thus, contact with extension agencies of inland fish farmers are an important variable which affect their overall managerial efficiency. This result was commensurate with Patel *et al.*, (2010), Alam, (2017) and Makwana, (2020).

(8) Exposure to agricultural mass media and managerial efficiency

The data pointed out in Table 1 revealed that exposure to agricultural mass media of the inland fish farmers had exerted positive and highly significant (r = 0.625**) correlation with their managerial efficiency. To epitomize the result it can be said that generally, inland fish farmers exposed more mass media are able to get information about various governments schemes which compelled to make contact with extension agencies resulted into get clue for better managements tactics lead to develop their managerial efficiency. Hence exposure to agricultural mass media had made significant contribution in managerial efficiency of inland fish farmers. This result was in compliance with Rajan, (2013).

(9) Pond size and managerial efficiency

The perusal of data Table 4 find out that pond size of the inland fish farmers had positive and significant (r = 0.172*) correlation with their managerial efficiency. The probable reason might be that the big pond size owners solely

depend on the income from the fishery where a large amount of capital is invested and are much cautious in managing the pond in a better way to get the adequate return resulted in to have higher managerial ability than marginal and small pond size holder. Thus, with the different pond size of the inland fish farmer, their managerial efficiency was different and had key role to play in deciding the managerial efficiency. The result was accordant with Nath, (1993).

(10) Economic motivation and managerial efficiency

The data depicted in Table 4 show that economic motivation of the inland fish farmers had positive and highly significant (r value) (0.526**) correlation with their managerial efficiency. From the above findings, it can be summarized that economic motivation is the basic character upon which other motives and drives are built. When one develops higher level of economic motivation and wants to achieve it, he would strive hard and get internalize himself about different aspects of profit maximization. Operating motive of earning higher income is a mental virus which naturally activates the fish farmer in the direction of rational decision making which in turn contributing in significant influence in different areas of management of fish farming and which in turn reflected in to enhancement of the management efficiency. Hence economic motivation of inland fish farmers had great influence in moulding their managerial efficiency. The result was in assent with Birajdar (2012) and Makwana (2020).

(11) Risk orientation and managerial efficiency

The data in Table 4 stated that risk orientation of the inland fish farmers had positive and highly significant (r value) (0.645**) correlation with their managerial efficiency. From the above findings, it can be concluded the fish farmer with higher levels of risk orientation would be much ahead of other in exploiting the benefits of timely fish farming activities to be done which enforced to take decision in natural way might be possible explanation of this result. Thus, risk orientation of inland fish farmer is important determinant in shaping managerial efficiency in desirable direction. The result was accordant with Mande, (2015).

(12) Achievement motivation and managerial efficiency

The data put forward in Table 4 calculated that achievement motivation of the inland fish farmers had positive and highly significant (r = 0.528**) correlation with their managerial efficiency. The higher achievement motivated inland fish farmers had greater drives to excel effective functioning to reach a sense of personal accomplishment than lower achievement motivated inland fish farmer as higher achievement motivated inland fish farmers realize the latent potential resources for its optimum utilization to earn higher income which open an avenue for best achievement which in turn enforced them to perform better leading to develop traits related to managerial efficiency might be the possible explanation of these type of result. Thus achievement motivation of the inland fish farmers was the determinant factor for enhancing their managerial efficiency. The result was accordant with Patel *et al.,* (2010).

(13) Scientific orientation and managerial efficiency

The data put forward in Table 4 calculated that scientific orientation of the inland fish farmers had established positive and highly significant (r value) (0.678**) correlation with their managerial efficiency. The probable cause for the significant association might be that scientific orientation of the inland fish farmers opens their mental horizon which acts as a catalyst in developing reception power regarding the inland fish farming practices and thereby creating positive disposition towards it, which ultimately reflected in better managerial efficiency. Therefore, it is logical to assume that inland fish farmers having higher scientific orientation had better managerial efficiency. Thus, scientific orientation of inland fish farmer was the vital variable in shaping managerial efficiency of the inland fish farmer. The result was in obedience with Makwana (2020).

(14) Innovation proneness and managerial efficiency

The data put forward in Table 4 calculated that innovation proneness of the inland fish farmers had recognized positive and highly significant (r = 0.634**) correlation with their managerial efficiency. It can be concluded that innovation proneness offers inland fish farmers impetus for working for excellence which would enable them to manifest this excellence in availing the opportunities through its various activities. It means that the inland fish farmers who had higher level of innovativeness had more favourable disposition about inland fish farming activities that helps in shaping their managerial efficiency. Thus, managerial efficiency of inland fish farmer was greatly influenced by innovation proneness. The result was in harmony with Patel *et al.,* (2010).

(15) Self confidence and managerial efficiency

The data put forward in Table 4 signify that self confidence of the inland fish farmers had shown positive and highly significant (r =0.575**) correlation with their managerial efficiency. The result shows that respondents with high degree of assurance on their own ability and resourcefulness in carrying out any activity in the fish farming had high level of managerial efficiency. It is natural that high level of knowledge, positive attitude, skill, better

understanding of different aspects and deep involvement in various activities makes man self confident. All such qualities are also important ingredients to be a good manager. This might be the reason to have high level of managerial efficiency among those respondents, who had high level of self confidence. Thus, self confidence of inland fish farmers play an important role in enhancement of their managerial efficiency. The result was in harmony with Mande, (2015).

CONCLUSION

The result designated that majority of inland fish farmers had medium to high level of knowledge regarding fish farming management practices, ability in planning, ability in coordinating activities, budgeting ability, competence in evaluation of situation and market orientation with very high to medium level of adoption of scientific inland fish farming practices and neutral to favourable attitude towards inland fish farming with low to medium level of information seeking ability, ability to make rational decisions and ability to mobilize resources. It can be said that among all the indicators which determine the managerial efficiency, Market orientation performed best followed by attitude towards inland fish farming, competence in evaluation of situation, ability in planning, knowledge regarding fish farming management practices, budgeting ability, ability to make rational decisions, information seeking ability and ability to mobilize resources, whereas ability in coordinating activities and adoption of scientific inland fish farming practices were not up to the mark. The overall managerial efficiency of inland fish farmer was found to be 57.10 per cent.

Among the selected personal, socio-economic, communicational, situational and psychological variables; education, caste, annual income, participation in training, contact with extension agency, exposure to agricultural mass media, pond size, economic motivation, risk orientation, achievement motivation, scientific orientation, innovation proneness and self confidence had establish positive and significant relationship with the managerial efficiency of inland fish farmers, whereas age and social participation failed to show any significant influence on the managerial efficiency of inland fish farmers.

IMPLICATIONS AND RECOMMENDATIONS

The overall managerial efficiency of inland fish farmers was found 57.10 per cent in terms of mean per cent score and the gap is to be narrowed by effective and efficient execution of innovative ideas implementation and task functions of inland fish farming as the performance of these indicators were not up to the mark.

The findings of the present investigation revealed the training needs and profile of inland fish farmers of the inland fish farming which may be tell-tale of the training needs of inland fish farmers. The extension agencies may use these findings for improving the profile of respective inland fish farmers, wherever possible. Further, they may consider these characteristics while planning and executing the programmers for promoting the inland fish farmers to increase the inland fish farming production for food and nutritional security.

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CONFLICT OF INTEREST

I kindly declare that there is no conflict of interest among researchers among this research.

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