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Factors Influencing Aspiration of Marine Fishermen

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A major behavioural factor that affects adoption and development is the level of aspiration. The level of aspiration is a decisive determinant for raising the productivity as well as standard of living (Muthayya, 1971). The present study is designed to identify the variables which significantly influence the level of aspiration of marine fishermen. The results of the study will help to identify the relationship between aspiration and socio-personal characteristics which in turn can be used in the development of more precise and effective programmes of fishery development according to varying personal traits and aspiration.

METHODOLOGY

The study was conducted in two selected coastal districts of Kerala viz., Trichur and Ernakulam. A sample of 136 marine fishermen engaged in active fishing were selected randomly for data collection from these two districts. Level

of aspiration was measured using the method adopted by Ramchand (1980) with relevant modifications. The areas of aspiration were delineated based on past studies, field experiences and opinion of the experts in the field. This was presented to 30 judges for assigning differential numerical weights to various items. The mean ratings of the judgements were taken to arrive at the composite aspiration score for various items.

The independent variables selected for the study were Family structure, family size, educational status of respondents, family education, craft ownership, possession of outboard engine, credit utilization, adoption of improved practices, risk orientation, information source contact, extension participation and value orientation.

Family structure, family size, educational status of respondent and family education status

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Table. 1. Correlation and Path Analysis of Independent Variables with 'Aspiration' as Dependent Variable.

Sl. No.	Independent variables	Correlation coefficients	Direct effects	Total Indirect effects	Substantial indirect effects through		
					I	II	II
1.	X ₅ Craft ownership	0.137	0.261	0.137	0.028 (12)	0.006 (1)	0.003 (4)
2.	X ₁₁ Extension participation.	0.190**	0.190	0.178	0.019 (12)	0.016 (3)	0.013 (9)
3.	X ₆ Possession of out-board engine	0.217**	0.186	0.218	0.107 (8)	0.017 (4)	0.011(11)
4.	X ₁₂ Value orientation	-0.188**	0.176	0.164	0.020 (9)	0.014 (8)	0.008 (6)
5.	X ₈ Adoption of improved practices	0.196	0.166	0.196	0.120 (6)	0.017 (4)	0.007 (11)
6.	X ₂ Family size	0.067	0.165	0.067	0.004 (12)	0.002 (7)	0.002 (6)
7.	X ₃ Education status of respondents	0.127	0.155	0.127	0.020 (11)	0.013 (6)	0.0003(7)
8.	X ₉ Risk orientation	0.003	0.085	0.009	0.029 (11)	0.011 (1)	0.0003(7)
9.	X ₄ Family education	0.067	0.079	0.067	0.041 (6)	0.035 (8)	0.013 (1)
10.	X ₁ Family structure	-0.005	0.068	-0.005	0.022 (5)	0.015 (4)	0.014 (9)
11.	X ₁₀ Information source contact	0.049	-0.027	0.049	0.057 (11)	0.033 (3)	0.019 (6)
12.	X ₇ Credit utilization	0.048	0.007	0.047	0.029 (12)	0.023 (11)	0.019 (5)

** Significant at 1 per cent level.

* Significant at 5 per cent level

Table 2. Multiple Regression Analysis of the Level of Aspiration of Marine Fishermen with Independent Variables

Characteristics	Partial regression	't' value for partial regression	Standard partial regression coefficient	Rank
X ₁ Family structure	1.4135	0.7123	0.0685	10
X ₂ Family size	0.4467	1.6871	0.1652	6
X ₃ Educational status of respondent	2.0683	1.8309	0.1554	7
X ₄ Family education	1.4107	0.8427	0.0787	9
X ₅ Craft ownership	5.2717	2.9514**	0.2609	1
X ₆ Outboard engine	3.9345	1.6345	0.1856	3
X ₇ Credit utilization	-0.1339	0.0780	-0.0067	12
X ₈ Adoption of improved practices	1.9935	1.5091	0.1659	5
X ₉ Risk orientation	0.2861	0.9743	0.0845	8
X ₁₀ Information source contact	-0.1594	0.2934	-0.0268	11
X ₁₁ Extension participation	0.3338	2.1156**	0.1900	2
X ₁₂ Value orientation	-0.8535	2.0431*	0.1760	4

R² = 0.460F^o value = 2.76**

were measured following Trivedi scale (1963). Craft ownership and possession of outboard engine were measured assigning one score for possession and zero score for non-possession. Credit utilization was measured in terms of availing of loan from Banks and Government Agencies. Adoption of each improved practice was given a score of one to arrive at the total score for adoption of improved practices. Information source contact was measured by assigning one score for each contact with information source by the dependents. Value orientation scale, Chattopadhyay S.N. (1963), Risk orientation scale, Supre (1969) and Extension participation scale, Sidharamaiah and Jalihal (1983) were used in the study.

FINDINGS AND DISCUSSION

The data reported in Table 1 reveal that out of twelve independent variables only four i.e., extension participation, possession of outboard engine, value orientation and adoption of improved practices were significantly related to aspiration.

The regression analysis as reported in Table 2 indicate that only three variables contributed significantly to aspiration. However, three more variables, possession of outboard engine, educational status of the respondent and family size were found to have considerable contribution at 10 per cent level. Interestingly the variable craft ownership which failed to give a significant correlation coefficient yielded a highly significant regression coefficient. Similarly the variables possession of outboard engine and adoption of improved practices which showed significant correlation failed to yield significant regression coefficients even though the values obtained were considerably high. The data reveal that all the twelve independent variables taken together accounted for 21 per cent of variation in the level of aspiration which was also found statistically sig-

nificant as reported in Table - 2. Regression analysis exclusively with variables having relatively high overall contribution revealed that seven variables i.e., craft ownership, extension participation, possession of outboard engine, value orientation, adoption of improved practices, family size and educational status of respondent had cumulatively accounted for 19.62 per cent variation in the level of aspiration which was also found to be statistically significant. So it can be inferred that the variables which were dropped had negligible impact. The relative importance of these seven variables are further strengthened based on the inference from path analysis (Table 1). The findings related to these variables as evident from the correlation, regression and path analysis are discussed below in detail.

Craft Ownership

Craft ownership was found to be a very dominant variable leading to higher level of aspiration. It had the highest contribution in regression analysis (significant at one per cent level) but having positive, non-significant correlation with aspiration. This variable was found to have the maximum direct effect on aspiration. The variables value orientation, family structure and family education were found to channel their major indirect effects through this variable. Out of these family structure and family education were not found to have substantial direct effect on aspiration.

Possession of Outboard Engine

This variable was very important in respect of its correlation coefficient, partial regression coefficient as well as direct path coefficient which were significant/substantial and positive in direction. It channelled substantial indirect effects of six out of twelve variables in the study. Its total indirect effect was found to be more than the direct effect.

The variables adoption of improved practices, educational status of respondent and family education were found to channel their major indirect effects through this variable. Out of these three variables the adoption of improved practices was also found to have substantial direct effect on aspiration.

Extension Participation

The extension participation of the respondents was found to be very important in the level of aspiration as its correlation coefficient, partial regression coefficient and substantial direct effect were found significant/substantial and positive. It was also found that the variable channelled substantial indirect effects of 5 other variables through it. The variables educational status of the respondent, risk orientation and value orientation channelled their major indirect effects through this variable. Extension contact was found significantly contributing to the level of aspiration in earlier studies too Ramchand; (1980) Muthayya, (1971) and Singh, (1966).

Adoption of Improved Practices

This variable showed significant positive correlation coefficient but did not yield significant regression coefficient. However its direct path coefficient was found substantial. It also channelled substantial indirect path coefficients of three variables. It can be inferred that fishermen who came forward for adoption of improved practices had a higher level of aspiration. This finding is in conformity with that of Balasubramaniam and Kaul (1985) and Nair (1969).

Value Orientation

The variable value orientation gave significant correlation and regression coefficient but negative in direction. However, path analysis revealed substantial positive direct effects of this variable on aspiration. Value orientation was found chan-

neling substantial indirect effects of four variables through it. The variables like risk orientation, adoption of improved practices and possession of outboard engine were found to have substantial indirect effect on this variable.

Family Size

Family size was found to have relatively high overall contribution on aspiration but its correlation and regression coefficients were not significant at 5 percent level. But regression coefficient was found significant at 10 percent level. However, the variable yielded substantial direct effect on aspiration. It was interesting to note that this variable did not channel indirect effect of any other variable through it. Possession of outboard engine, value orientation, and credit utilization were found to have indirect effect on this variable.

Educational Status of Respondent

The direct and overall indirect effect of this variable on aspiration was found substantial. It yielded regression coefficient significant at ten per cent level. Correlation coefficient was positive but not significant. This variable was found to channel substantial indirect effects of three variables. Extension participation, possession of outboard engine and credit utilization were found to have substantial indirect effect on educational status. Educational status was found significantly associated with level of aspiration in an earlier study on aspiration by Singh (1966).

It was interesting to note that educational status of respondent, family education, adoption of improved practices and possession of outboard engine formed a constellation of variables which obviously shows the interaction of these variables and its contribution to higher level of aspiration. Extension participation and educational status of the respondent were also found to be linked and it can be inferred that educational status

promoted better extension participation which in turn yielded substantial direct effect on aspiration.

However, the variables, information source contact and credit utilization which ought to have significantly contributed to the level of aspiration were found to be of the least magnitude. The reason may be that the fishermen who had utilized credit source to the maximum extent were generally found engulfed in the vicious circle of poverty due to their low capacity of repayment. Hence it may have given a negative effect on their level of further aspirations in life. A study on adoption of improved fisheries practices (Balasubramanian, 1985) had shown that investment on outboard engine which is considered as a progressive trend of fishermen had negative correlation with adoption index as the heavy investment was found to retard their innovativeness. Investment on outboard engine being very high is usually met with the help of some or other credit sources. Hence the present observation is in line with the earlier study cited.

The content analysis of the fisheries news in newspapers (Regunathan, 1987) has shown that fisheries news had the least coverage when compared to crops and animal husbandry. Other information sources were also found to give least coverage for fisheries. The main sources of information utilized were found to be fellow fishermen

and fishery officials (Jancy Jacob, 1987). However, in the present study it was found to have the least effect on the level of aspiration.

IMPLICATIONS

Craft ownership and possession of outboard engine were found to be dominant variables in determining a higher level of aspiration. This in turn denotes its importance in higher productivity and standard of living. Hence, planners, policy makers and financing institutions in the field of fisheries must give priority to these variables.

Extension participation and adoption of improved practices were found important correlates of aspiration which channel indirect effect of a good number of other variables too. Proper consideration for these variables may be given while planning extension programmes for fishermen. The level of aspiration was found to increase according to the educational level of the fishermen. Therefore, adult education programmes need to be strengthened in the coastal belt for educating illiterates and dropouts.

The negative regression coefficients of credit utilization and information source contact and the unexpectedly low effects of these variables on aspiration has emerged out as an interesting finding which calls for further studies and action in this direction.

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