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RELATIONSHIP BETWEEN THE INLAND FISH FARMERS' ENTREPRENEURIAL COMPETENCE AND THEIR PROFILE

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ABSTRACT

The present investigation, meticulously designed and carried out in the Anand district of middle Gujarat, utilized the 'Ex-post Facto' research design, renowned for its robustness and credibility. The researcher obtained a list of Inland fish farmers from the office of the Assistant Director of Fisheries Anand and KVK, Devataj, and based on availability, 150 Inland fish farmers from the Anand district were selected randomly. The independent variables, including age, education, experience in inland fish farming, extension participation, scientific orientation, and fish farming commitment, had a positive and significant relationship with the entrepreneurial competence of inland fish farmers. Despite the rigorous design, the remaining nine variables failed to show a substantial relationship with their entrepreneurial competence.

Keywords: *inland fish farmers, profile, relationship*

INTRODUCTION

Global fish production reached about 179 million tonnes in 2018 with a total first sale value estimated at 401 billion USD, of which 82 million tonnes, valued at 250 billion USD, came from aquaculture production and among which 156 million tonnes were used for human consumption, equivalent to an estimated annual supply of 20.5 kg per capita. The remaining 22 million tonnes were destined for non-food uses, mainly to produce fishmeal and fish oil. Aquaculture accounted for 46 percent of the total production and 52 percent of fish for human consumption. Global capture fisheries production in 2018 reached a record 96.4 million tonnes, with an increase of 5.4 percent from the previous three years' average. Marine capture fisheries mostly drove the growth, where production increased from 81.2 million tonnes in 2017 to 84.4 million tonnes in 2018, still below the all-time high of 86.4 million tonnes in 1996. The top seven producing countries of global capture fisheries accounted for almost 50 percent of total captures, with China producing 15 percent of the total, followed by Indonesia (7 percent), Peru (7 percent), India (6 percent), the Russian Federation (5 percent), the United States of America (5 percent) and Viet Nam (3 percent). The top 20 producing countries accounted for about 74 percent of the total capture fisheries production (Anonymous, 2020).

Gujarat is the northernmost maritime State on India's west coast, between 20.1 and 24.7 degrees latitude and 68.4 and 74.4 degrees east longitude. The coastline of Gujarat is 1600 km long, and salt marshes, sand belts, and gravel patches mark the topography. Innumerable coral reefs, tidal mudflats, and coral islands characterize the southern coast of the Gulf of Kutch. The desert of Kutch is a vast expanse of tidal mudflats flaked with saline efflorescence. The Gujarat coast, including the two Gulfs, is blessed with physical features that are friendly to the development of fisheries. The 1600 km long coastline accounts for 19.79 percent of the total coastline available to the country. The area of the continental shelf of Gujarat is estimated at 184,000 Sq. Km. is 34.07 percent of the total shelf area of India. The state has enough resources for marine and inland fish production. The bulk of the inland catch is derived from the Surat, Jamnagar, Bharuch, Ahmedabad, Vadodara, and Valsad districts. Freshwater prawns are mainly derived from Surendranagar, followed by Sabarkantha, Kheda, Ahmedabad, Valsad, and Vadodara. (https://gujarat.pscnotes.com/gujrat-geography/gujarat-fishing/).

OBJECTIVE

To study the relationship between the profile of inland fish farmers and their entrepreneurial competence

METHODOLOGY

The study was conducted in the Anand districts of the middle Gujarat State. A list of Inland fish farmers was obtained from the office of Assistant Director of Fisheries Anand and KVK, Devataj, and based on the availability, 150 Inland fish farmers from the Anand district were selected randomly. The interview schedule was prepared in light of the

objectives, and respondents were interviewed either at home or in their offices. An ex-post facto research design was used for the measurement of variables. The data were analyzed to find out the relationship between each of the independent variables and the dependent variables.

RESULTS AND DISCUSSION

Relationship between the profile of the inland fish farmers and their entrepreneurial competence

Table 1: Relationship between the profile of the inland fish farmers and their entrepreneurial competence (n = 150)

Sr. No.	Independent Variables	('r' value)
X_1	**Age**	0.206*
X_2	**Education**	0.166*
X_3	**Experience in inland fish farming**	0.245**
X_4	**Social Participation**	0.114
X_5	**Gender**	-0.045
X_6	**Caste**	0.096
X_7	**Annual Income**	-0.001
X_8	**Size of the pond (Ha.)**	-0.123
X_9	**Mass Media**	0.037
X_{10}	**Extension participation**	0.377**
X_{11}	**Scientific Orientation**	0.160*
X_{12}	**Credit Orientation**	-0.101
X_{13}	**Deferred Gratification**	0.148
X_{14}	**Fish Farming Commitment**	0.175*
X_{15}	**Economic Motivation**	0.148

** Significant at 0.05 level of probability*
*** Significant at 0.01 level of probability*

Age and entrepreneurial competence

The data presented in Table 1 revealed that the age of the inland fish farmers (r = 0.206*) was found to be positively and significantly correlated with their entrepreneurial competence, which implies that young inland fish farmers' level of entrepreneurial competence was found to be higher as compared to old age farmers. Hence, the null hypothesis (H_{01}) that "there is no relationship between the age of inland fish farmers and their entrepreneurial competence" was rejected.

To epitomize the result, it can be stated that the age of inland fish farmers influenced their entrepreneurial competence. Generally, old-age farmers had a more excellent accumulated experience, enabling them to interpret the information and ideas for better management, which might explain this result. Thus, it can be said that the age of inland fish farmers was a vital factor in determining entrepreneurial competence. This result was in contradiction with the result of Pawar (2016) and Patel et al. (2023).

Education and entrepreneurial competence

The data presented in Table 1 clearly showed that the education of the inland fish farmers had a positive and significant (r=0.166*) correlation with their entrepreneurial competence. Thus, the null hypothesis (H_{02}) that "there is no relationship between education levels of inland fish farmers and their entrepreneurial competence" was rejected.

It may be concluded that those fish farmers with higher levels of education also had higher entrepreneurial competence and vice versa. A possible explanation for this type of outcome is that education broadens a person's mental horizons, which encourages analytical thinking to identify various strategies for generating higher returns under multiple circumstances, ultimately leading to the development of better perception and comprehension of various management aspects, which in turn reflects into better entrepreneurial competence. Therefore, education plays a significant role in shaping the entrepreneurial competence of inland fish producers.

This finding conformed with the conclusions from Sipai (2023), Ninama (2022), Patel (2021), Patel and Vyas (2016), Boruah *et al.* (2015), and Patel et al. (2023).

Inland fish farming experience and entrepreneurial competence

The data in Table 1 indicate that the inland fish farming experience had a positive and highly significant (r = 0.245**) correlation with their entrepreneurial competence. Thus, the null hypothesis (H_{03}) that "there is no relationship between inland fish farming experience and their entrepreneurial competence was rejected.

Concluding the finding, it can be said that entrepreneurial competence was observed to be higher among those inland fish farmers having higher inland fish farming experience and vice versa, as the cumulative experience of the inland fish farmer would be much ahead of an inland fish farmer having lower experience in exploiting the benefits of timely execution of fish farming management practices which enforced to take the necessary action by naturally using optimum resources might be the possible explanation of this result. Thus, Inland fish farming experience is essential in shaping entrepreneurial competence in a desirable direction.

This finding contradicted the findings of Ram *et al.* (2014) and Patel and Vyas (2016).

Social participation and entrepreneurial competence

The data submitted in Table 1 depicted no significant (r = 0.114) correlation between the social participation of inland fish farmers and their entrepreneurial competence. Thus, the null hypothesis (H_{04}) that "there is no relationship between social participation of inland fish farmers and their entrepreneurial competence" was accepted, and it was concluded that social participation had no vital role to play in the entrepreneurial competence of inland fish farmers.

Concluding the finding, it can be said that the entrepreneurial competence level of inland fish farmers was similar among the different degrees of involvement in social organization, and hence, social participation is a non-determining factor that influences entrepreneurial competence**.** During the field survey**,** the participation of the majority of the inland fish farmers was found in milk cooperatives and other social organizations rather than fish farming-related organizations, which might be the possible explanation for its non-influence on entrepreneurial competence.

This finding was partially in line with Patel (2021) and in contradiction with the findings of Patel and Vyas (2016) and Ram *et al.* (2014).

Gender and entrepreneurial competence

The data furnished in Table 1 showed that the gender of inland fish farmers had a negative and non-significant (r = -0.045) correlation with their entrepreneurial competence. Thus, the null hypothesis (H_{05}) that "there is no relationship between gender of inland fish farmers and their entrepreneurial competence" was accepted, and it was concluded that inland fish farmers' entrepreneurial competence was unaffected by gender.

The negligible involvement of women in fish farming might be a possible cause for the non-determination of their entrepreneurial competence, and gender has not played any role. This finding contradicts the findings of Kumar (2017).

Caste and entrepreneurial competence

The data presented in Table 1 revealed a positive and non-significant relationship (r=0.096) between caste and entrepreneurial competence. Thus, the null hypothesis (H06) that "there is no relationship between caste and entrepreneurial competence" was accepted, and it was determined that caste had no bearing on the entrepreneurial competence of inland fish farmers.

From the above findings, it can be summarized that caste was the trivial factor in determining its influence on entrepreneurial competence; irrespective of different caste strata, the entrepreneurial competence among the inland fish farmers was similar. This finding was in contrast to the findings of Patel (2021) and Kumar (2017).

Annual family income and entrepreneurial competence

The data furnished in Table showed that the annual income of inland fish farmers had established a negative and non-significant correlation (r = -0.001) with their entrepreneurial competence. "Hence, the null hypothesis (H_{07}) that "there is no relationship between annual family income and entrepreneurial competence" was accepted.

It can be inferred that the annual income of inland fish farmers is a non-decisive factor in determining entrepreneurial competence. It is similar among the inland fish farmers, who have different categories of yearly revenue.

Thus, the finding contradicts the findings of Sipai (2023).

Size of the pond and entrepreneurial competence

The data shown in Table 1 indicated that the size of the pond exerted a negative and non-significant influence on determining entrepreneurial competence. Hence, the null hypothesis (H_{08}) that "there is no relationship between the pond size and entrepreneurial competence" was accepted.

Therefore, it can be claimed that inland fish farmers' entrepreneurial competence was similar regardless of their different pond sizes, and the pond size had no role in determining it. Thus, the finding contradicts the findings of Patel (2021).

Mass media exposure and entrepreneurial competence

The data shown in Table 1 indicate that inland fish farmers' mass media exposure had a positive and non-significant correlation (r= 0.037) with their entrepreneurial competence, which implies that mass media exposure did not play any role in changing their entrepreneurial competence. Hence, the null hypothesis (H_{09}) that no relationship exists between mass media exposure and entrepreneurial competence was accepted.

Thus, the entrepreneurial competence among the inland fish farmers was uniform irrespective of different levels of mass media exposure and was the recessive factor for its influence on the entrepreneurial competence of the inland fish farmers. The findings may also be because inland fish farming-related newer technologies and innovations receive significantly less coverage in TV, magazines, newspapers,

and other forms of media. The finding is supported by the finding of Chouhan (2014).

Extension participation and entrepreneurial competence

The data in Table 1 revealed that inland fish farmers' extension participation had a positive and highly significant (r = 0.377**) correlation with their entrepreneurial competence. Thus, the null hypothesis (H_{010}) that "there is no relationship between extension participation and entrepreneurial competence" was rejected.

It can be inferred that the extension participation of inland fish farmers enhances their extent of entrepreneurial competence as more extension participation of inland fish to extension agencies, favorably predisposed to acquire information, consequently raising their knowledge and confidence level, which might reinforce them to participate in the decision-making process which in turn reflected into this types of result. Thus, the extension participation of inland fish farmer is an important variable that affects their overall entrepreneurial competence. This finding is in line with the findings of Ninama (2022, Porchezhiyan *et al.* (2014), Sreeram *et al.* (2015) and Ramegowda (1991).

Scientific orientation and entrepreneurial competence

The data in Table 1 depicted that the scientific orientation of the inland fish farmers had established a positive and significant (r =0.160*) correlation with their entrepreneurial competence. Thus, it will provide sufficient ground to reject the null hypothesis (H_{011}) that "there is no relationship between the scientific orientation of the inland fish farmers and their entrepreneurial competence."

The probable cause for the significant association might be that the scientific orientation of the inland fish farmers opens their mental horizons, which catalyzes reception power regarding the inland fish farming practices, thereby creating a cheerful disposition towards it, reflected in better entrepreneurial competence. Therefore, it is logical to assume that inland fish farmers with higher scientific orientation had better entrepreneurial competence. Thus, the scientific orientation of the inland fish farmer was vital in shaping the entrepreneurial competence of the inland fish farmer.

Thus, the scientific orientation of the inland fish was a vital variable, and the result was slightly in line with Ninama (2022), Mande (2015), and Darandale (2010) for cotton growers, Patel (2006) for aonla growers, and Birajdar (2012) for flower growers.

Credit orientation and entrepreneurial competence

It is observed from the data in Table 1 that the credit orientation of the inland fish farmers had established a negative and non-significant (r =-0.101) correlation with entrepreneurial competence. Thus, the null hypothesis (H_{012}) that "there is no relationship between credit orientation and entrepreneurial competence" is accepted.

Thus, inland fish farmers' orientation to take advantage of the existing public and private credit institutions did not play a significant role in promoting or inhibiting their extent of entrepreneurial competence; hence, it can be said that credit orientation is an inconsequential determinant of entrepreneurial competence. These findings align with Ninama's (2022) and Dabhi's (2002) findings.

Deferred gratification and entrepreneurial competence

A positive and non-significant (r =0.148) correlation was observed between the deferred gratification of inland fish farmers and their entrepreneurial competence. Hence, the hypothesis (H_{013}) that "there is no relationship between deferred gratification of inland fish farmers and their entrepreneurial competence" was accepted.

The postponement of immediate satisfaction in anticipation of future rewards by inland fish farming related to finance and saving from unnecessary expense was found uniform irrespective of different levels of entrepreneurial competence; hence, deferred gratification of inland fish farmers did not influence entrepreneurial competence. The findings contradict those of Ninama (2022), Patel (2005), Malik (1994), and Ramegowda (1991).

Fish farming commitment and entrepreneurial competence

The data in Table 1 show that the commitment of inland fish farmers to fish farming has a positive and significant relationship (r=0.175*) with their entrepreneurial competence. Thus, the null hypothesis (H014) that "there is no relationship between the commitment of inland fish farmers and their entrepreneurial competence" was rejected.

Inland fish farmers with higher levels of devotion to their fish farming also exhibited higher levels of entrepreneurial skill. The inland fish farmers' significant role in shaping entrepreneurial competence may stem from their strong desire to stay in the fish farming industry, which drives them to exert more effort to make fish farming more profitable and, in this process, develop favorable traits among them through trial and error for better management that, in turn, leads to building up higher entrepreneurial competence. As a result, the devotion to fish farming influenced the inland

fish farmers' capacity for entrepreneurship. The finding is supported by the findings of Ninama (2022), Malik (1994), and Ramegowda (1991).

Economic motivation and entrepreneurial competence

The data depicted in Table 1 show that the economic motivation of inland fish farmers had a positive and non-significant relationship (r=0.148) with their entrepreneurial competence. Thus, the null hypothesis (H_{015}) that "there is no relationship between exposure to the economic motivation of inland fish farmers and their entrepreneurial competence" was accepted.

From the above findings, it can be summarized that fish farmers considered fish farming a less remunerative business and believed that it was worthwhile not to motivate themselves for a higher level of profit maximization, which naturally inactivates the fish farmer toward enhancing entrepreneurial competence. Hence, the economic motivation of inland fish farmers is a trivial factor in molding their entrepreneurial competence. This finding contradicts the findings of Ninama (2022), Patel (2021), and Vyas (1995).

CONCLUSION

The independent variables, including age, education, experience in inland fish farming, extension participation, scientific orientation, and fish farming commitment, had a positive and significant relationship with the entrepreneurial competence of inland fish farmers. Despite the rigorous design, the remaining nine variables failed to show a substantial relationship with their entrepreneurial competence.

CONFLICT OF INTEREST

All authors declare that they have no conflict of interest.

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