

International Journal of Agriculture Extension and Social Development

Volume 8; Issue 5; May 2025; Page No. 349-353

Received: 05-03-2025
Accepted: 09-04-2025

Indexed Journal
Peer Reviewed Journal

Entrepreneur behaviour and adoption behavior of dairy farmers in Kanpur District of U.P.

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DOI: <https://www.doi.org/10.33545/26180723.2025.v8.i5e.1930>

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Abstract

The study was carried out in Uttar Pradesh's Kanpur area. For the study, 200 dairy farmers were selected as a sample. According to the survey, the majority of dairy farmers showed a medium level of entrepreneurial behavior. The majority of dairy farmers had a medium degree of acceptance of scientific dairy technologies, followed by high and low, according to the extent of farmer adoption. While the remaining three variables—age, caste, and family size—did not establish any significant relationship with entrepreneurial behavior, the coefficient of correlation of each of the socio-personal characteristics of the dairy farmer—education, family annual income, livestock possession, information seeking behavior, extension contact, knowledge of dairy farmers, experience in dairy farming, land holding, occupation, scientific orientation, economic motivation, and marketing orientation—showed a positive and significant relationship with entrepreneurial behavior.

Keywords: Entrepreneurial behavior, dairy farmers, adoption behaviour.

Introduction

For thousands of years, dairy production has played a significant role in the agricultural landscape. About 70% of people in India, a country with a mostly agricultural economy, live in villages where animals are essential to socioeconomic life. High-quality foods like milk, cheese, butter, ghee, and so on are produced by livestock. India is the world's largest consumer of milk and milk products in addition to being one of the world's top producers of milk. We have to import a lot of milk products to fulfill our domestic demand because of the supply shortage.

Animals supply milk, manure, and draught power for different agricultural processes, while the agricultural sector supplies feed and fodder for the cattle. This symbiotic link exists between agriculture and animal husbandry. India's socioeconomic change is largely due to the dairy industry. In addition to offering better nutritional advantages, it has produced several job possibilities. About 28.6% of the agricultural value production comes from animal husbandry, a significant subsector of the agriculture sector (Annual Report 2020–21, Department of Animal Husbandry, Dairying and Fisheries, Government of India). The livestock sub-sector grew at a rate of 6.27 percent in 2019–20 and 6.37 percent in 2020–21, respectively. This is much faster than the agricultural and related sectors' overall growth rates of 0.7% and 4.9% over the same time period (Economic Survey, 2016–17). According to the data, the dairy industry offers a great deal of job opportunities for entrepreneurs. The breadth of the dairy industry in India is covered in this unit.

In India, dairy farming has developed into a professionally run sector from merely an agricultural way of life. The production of dairy products is a significant source of supplementary income for many rural communities in India. Raw milk has a sizable market in India and is often regarded as fresh by customers. About 60% of milk consumed in India is in liquid form due to traditional eating practices; the remainder is consumed as ghee, cheese, curd, paneer, ice cream, dairy whiteners, and traditional sweets. Dairy farming is a comparatively low-risk daily revenue source. The process of starting one's own firm is known as entrepreneurship, and it differs from engaging in any other economic activity, such as working for a living or pursuing a career. An entrepreneur is a person who establishes his own business. An enterprise is the result of the process, or the business unit.

It was formerly thought that entrepreneurs were born. No society can postpone its developmental goals until the opportunity for entrepreneurs to "birth" presents itself. genuinely, unless entrepreneurship development is seen as a purposeful process of educating people about entrepreneurship as a vocation at a young age and establishing circumstances where they may genuinely choose to become entrepreneurs, plans for economic development would not yield much. Along with a number of other monetary and emotional benefits, this decision turns you from a job-seeker into a job-provider. Being an entrepreneur is undoubtedly more about wanting to be one than it is about being born that way.

A single description of entrepreneurship is an inventive and

creative reaction to the surroundings. These reactions can occur in a number of domains, including social work, business, industry, agriculture, education, and the like. Entrepreneurial conduct is simply defined as doing new things or doing things that are already being done in a different way. A penchant for innovation and a change in the status quo and current institutions are characteristics of entrepreneurial behavior. It might be as straightforward as being willing to buy an innovative device or as complex as overthrowing the current political system and founding a new country. It manifests as an entrepreneur taking on the risk of planning production and starting a new company. The agricultural economy of India has been greatly impacted by the dairy business, which includes many dairy entrepreneurs in rural regions. Any nation's entrepreneurs play a crucial role in fostering technical advancement and economic expansion. The way their activities—that is, the growth of entrepreneurship—appear is closely tied to the socioeconomic advancement of the community. Since India is the world's largest producer of milk, dairy farmers play a crucial part in the agricultural industry and the socioeconomic advancement of society.

Materials and Methods

The current study was conducted in Uttar Pradesh's Kanpur district. Kanpur district was purposively chosen for the research out of Uttar Pradesh's 78 districts. There are ten

blocks in the Kanpur district of Uttar Pradesh. Two villages were chosen from each block based on the size of the area used for dairy farming. The 20 villages were chosen for the study. With the support of RAEs and other extension workers, a list of dairy farmers was compiled from the chosen villages. Using random sampling technique, 10 dairy farmers were selected from each selected villages for the study thus the total sample size is 200 for the study.

The Entrepreneurial Behavior Scale, created by Chaudhari *et al.* (2007) ^[2], was used to measure the entrepreneurial behavior of the dairy farmers, which was regarded as the dependent variable. Innovativeness, accomplishment motivation, decision-making ability, risk orientation, coordinating ability, planning ability, information-seeking behavior, cosmopolitanism, and self-confidence are the nine components that make up the measure. An indicator was created to measure the farmers' degree of entrepreneurial behavior.

Results and Discussion

1.1 The entrepreneurial behavior of dairy farmers

Innovativeness, accomplishment motivation, decision-making ability, risk orientation, coordinating ability, planning ability, information seeking, cosmopolitanism, and self-confidence comprised the nine components that made up the entrepreneurial behavior of dairy farmers. Table 1 contains the data collected in this regard.

Table 1: Distribution of dairy farmers based on components of entrepreneurial behavior of dairy farmers-(n=200)

| S.N. | Components | Category | | |
|------|------------------------------|------------|-------------|------------|
| | | Low | Medium | High |
| 1 | Innovativeness | 45 (22.50) | 133 (66.50) | 22 (11.00) |
| 2 | Achievement motivation | 32 (16.00) | 135 (67.50) | 33 (16.50) |
| 3 | Decision making ability | 28 (14.00) | 128 (64.00) | 44 (22.00) |
| 4 | Risk Orientation | 40 (20.00) | 124 (62.00) | 36 (18.00) |
| 5 | Co-ordinating ability | 42 (21.00) | 122 (61.00) | 36 (18.00) |
| 6 | Planning ability | 25 (12.50) | 143 (71.50) | 32 (16.00) |
| 7 | Information seeking behavior | 28 (14.00) | 132 (66.00) | 40 (20.00) |
| 8 | Cosmopolitanisms | 30 (15.00) | 135 (67.50) | 35 (17.50) |
| 9 | Self confidence | 32 (16.00) | 123 (62.50) | 45 (22.50) |
| | Overall category | 33 (16.50) | 130 (65.00) | 37 (18.50) |

1.1.1 Innovativeness

As can be seen in table 1, the majority of dairy farmers (66.50%) had a medium degree of innovativeness, whereas 22.50 percent had low innovativeness and 11.0 percent had high innovativeness.

1.1.2 Achievement motivation

Table 1 makes it clear that the majority of dairy farmers (67.50%) had medium achievement motivation, while 16.50 percent of them were in the high success motivation category and 16.00 percent were in the low achievement motivation category.

1.1.3 Decision making ability

According to table 1, the majority of dairy farmers (64.00%) had medium decision-making skills, followed by high decision-making skills (22.0%) and poor decision-making

skills (14.0%).

1.1.4 Risk orientation

Table 1 makes it clear that the majority of dairy farmers (62.00%) had a medium risk orientation, while less than one-fourth (20.00%) had a low risk orientation and just 18.00% had a high risk orientation.

1.1.5 Co-ordinating ability

Table 1 suggests that the majority of dairy farmers (61.00%) had medium coordination skills, while just 18.00% had poor coordination skills and 21.00% had low coordination skills.

1.1.6 Planning ability

Table 1 showed that most dairy farmers (71.50%) have medium planning ability, followed by high (16.00%) and low (12.50%).

1.1.7 Detection information behavior

According to table 1, the majority of dairy farmers (66.00%) exhibited medium information seeking behavior, while just 14.00% exhibited low information seeking behavior and 20.00% exhibited high information seeking behavior.

1.1.8 Cosmopoliteness

Table 1 makes it clear that the majority of dairy farmers (67.50%) were rather cosmopolite. On the other hand, only 15% of dairy farmers showed low levels of cosmopoliteness, while 17.50% had high levels.

1.1.9 Self-confidence

Table 1 makes it abundantly evident that the majority of dairy farmers (62.50%) had medium levels of self-confidence, while just 16.0% had low levels and 22.50% had high levels.

Overall entrepreneurial behavior of dairy farmers

Operationally, entrepreneurial conduct was defined as the course of action an entrepreneur took to begin his business. It is a composite talent, the outcome of combining a variety of attributes. Dairy producers were divided into three groups based on their entrepreneurial scores: low, medium, and

high. Table 2 shows the frequency distributions of these groups.

Table 2: Distribution of the respondents according to their overall entrepreneurial behavior-(n=200)

| S.N. | Category | Frequency | Percentage |
|-------|------------------------------|-----------|------------|
| 1 | Low (Less than 36) | 33 | 16.50 |
| 2 | Medium (between 36.00-72.00) | 130 | 65.00 |
| 3 | High (More than 72) | 37 | 18.50 |
| Total | | 200 | 100 |

Nearly 65 percent of respondents reported medium levels of entrepreneurial behavior, compared to 18.50 percent who reported high levels and 16.50 percent who reported low levels. The frequency distribution of respondents' responses regarding entrepreneurial behavior seemed to follow a normal distribution.

1.2 The extent of adoption of scientific dairy management practices of dairy farmers

A review of the data shows that the dairy farmers have adopted improved dairy management practices, as shown in table 3.

Table 3: Distribution of respondents according to their adoption behavior about improved dairy management practices- (n=200)

| S.N. | Adoption of scientific dairy technologies | Complete Adoption | | Partial Adoption | | No Adoption | |
|------|---|-------------------|-------|------------------|-------|-------------|-------|
| | | Freq. | % | Freq. | % | Freq. | % |
| 1. | Breeding Practices | | | | | | |
| | a) Monitoring the cow or buffalo's estrous cycle and heat symptoms | 165 | 82.50 | 25 | 12.50 | 10 | 5.00 |
| | b) A.I. practice during the appropriate heat | 140 | 70.00 | 40 | 20.00 | 20 | 10.00 |
| | c) Pregnancy diagnosis practice | 130 | 65.00 | 48 | 24.00 | 22 | 11.00 |
| 2. | Feeding Practices | | | | | | |
| | a) Colostrum should be given to a newborn calf within 30 minutes of birth | 145 | 72.50 | 40 | 20.00 | 15 | 7.50 |
| | b) feeding a concoction combination according to the amount of milk produced | 150 | 75.00 | 35 | 17.50 | 15 | 7.50 |
| | c) Growing green feed | 160 | 80.00 | 30 | 15.00 | 10 | 5.00 |
| 3. | Health care Practices | | | | | | |
| | a) Getting vaccinated against infectious illnesses including HS, BQ, and FMD on a timely and consistent basis | 122 | 61.00 | 62 | 31.00 | 16 | 8.00 |
| | b) Keeping sick animals who have infectious illnesses apart | 118 | 59.00 | 56 | 28.00 | 26 | 13.00 |
| | c) Using deworming techniques on calves to reduce parasite diseases | 95 | 47.50 | 73 | 36.50 | 32 | 16.00 |
| 4. | Miscellaneous Management | | | | | | |
| | a) Supplying the animals with fresh, clean drinking water | 174 | 87.00 | 16 | 8.00 | 10 | 5.00 |
| | b) Practicing full hand method of milking | 144 | 72.00 | 41 | 20.50 | 15 | 7.50 |
| | c) Maintaining the cleanliness of animal shed | 152 | 76.00 | 30 | 15.00 | 18 | 9.00 |
| 5. | Record maintaining | | | | | | |
| | a) Income record | 115 | 57.50 | 69 | 34.50 | 16 | 8.00 |
| | b) Milk production record | 117 | 58.50 | 69 | 34.50 | 14 | 7.00 |
| | c) Animal health record | 112 | 56.00 | 78 | 39.00 | 10 | 5.00 |
| | d) Expenditure record | 115 | 57.50 | 70 | 35.00 | 15 | 7.50 |

The degree of implementation of scientific dairy technology was examined in this study. Regarding the breeding practice of monitoring the estrous cycle and heat symptoms of cows and buffalo, the majority of dairy producers (82.50%) had full adoption, 12.50 percent had partial adoption, and only 5% had no adoption. About 70% of dairy producers that used AI during the appropriate heat had full adoption, 20% had partial adoption, and 10% had no adoption. Pregnancy diagnosis was fully adopted by 65.00 percent of respondents, somewhat adopted by 24.0 percent, and not practiced by 11.0 percent of dairy producers.

According to feeding habits, colostrum was routinely given to newborn calves by 72.50 percent of dairy producers for up to five days after the calves were born. Twenty percent of dairy producers partially adopted the practice of giving colostrum to newborn calves within 30 minutes of their birth, whereas seven and a half percent did not. According to milk production, the majority of respondents (75.00%) fed concentration mixture on a regular basis, while 17.50% of dairy producers occasionally followed the practice and 7.50% never did. Eighty percent of dairy producers were fully embracing the idea of cultivating green fodder, fifteen

percent were only partially adopting it, and just five percent were planting green fodder more recently.

It has been shown that 61% of dairy producers fully adopted the practice of timely and routine immunization against infectious illnesses such as HS, BQ, and FMD, whereas 31% partially adopted it and 8% did not. 13.00% of dairy farmers did not follow the protocol, 28.00% partially did so, and 59.00% of dairy producers routinely separated the sick animals with infectious illnesses. Therefore, 36.00% of dairy farmers occasionally performed deworming calves, whereas 47.00% of dairy farmers did so routinely. Of those surveyed, sixteen percent did adhere to the practice.

Under miscellaneous management, it could be seen from Table 3 that most of dairy farmers regularly provided 'clean and fresh drinking water to the animals' and 'maintained' the cleanliness of animal shed. About 72.0 percent of dairy farmers fully adopted the full hand method of milking, 20.50 percent partially adopted it, and 7.5 percent did not adopt it at all.

Accordingly, when it came to record keeping, 57.50 percent of dairy farmers kept their revenue records on a regular basis, 34.50% did so somewhat, and 8.00% did not. Of the

dairy producers, 58.50 percent keep track of their milk output, compared to 34.50 percent who partially adopted this practice and just 7.0 percent who did not. Dairy producers had full adoption of animal health records in 56.00% of cases, partial adoption in 39.00% of cases, and no adoption in 5.00% of cases. While 57.50 percent of farmers consistently keep track of their expenses, 35.00 percent somewhat and 7.50% of dairy producers did not.

Overall adoption behavior of dairy farmers

Table 4 shows the extent to which farmers have used scientific dairy technology. It shows that the majority of dairy farmers (61.50%) had a medium degree of acceptance of scientific dairy technology, while 22.50% had a high level of adoption. Just sixteen percent of those surveyed have adopted scientific dairy technology to a limited degree. The technical assistance offered by several organizations promoting dairy in the region, including KVK scientists, government representatives, and other private consultancies, may be the cause of the medium to high degree of adoption of scientific dairy techniques.

Table 4: Distribution of the respondents based on overall adoption of scientific dairy technologies-(n=200)

| S. N | Category | Frequency | Percentage |
|-------|------------------------|-----------|------------|
| 1 | Low (Less than 8) | 32 | 16.00 |
| 2 | Medium(between 8 - 16) | 123 | 61.50 |
| 3 | High(More than 16) | 45 | 22.50 |
| Total | | 200 | 100 |

1.3 The relationship between socio-economic profiles with entrepreneurial behavior of dairy farmers

The coefficient of correlation of each of the socio economic characteristics with their entrepreneurial behavior of dairy farmers has been furnished.

Table 5: Relationship between socio-economic profiles with entrepreneurial behavior of dairy farmers (n=200)

| S. No | Variable | Correlation coefficient (r) |
|-------|------------------------------|-----------------------------|
| 1 | Age | 0.065 NS |
| 2 | Education | 0.346** |
| 3 | Caste | 0.042NS |
| 4 | Family size | 0.041 NS |
| 5 | Experience in dairy farming | 0.276* |
| 6 | Land holding | 0.297* |
| 7 | Occupation | 0.298* |
| 8 | Family annual income | 0.336** |
| 9 | Livestock possession | 0.325** |
| 10 | Information Seeking Behavior | 0.330** |
| 11 | Extension Contact | 0.443** |
| 12 | Scientific orientation | 0.234* |
| 13 | Economic motivation | 0.281* |
| 14 | Marketing orientation | 0.235* |
| 15 | Knowledge | 0.308** |

**Significant at 1% level

*Significant at 5% level

NS- Non Significant

According to the data analyzed in Table 5, there was a positive and significant correlation between entrepreneurial behavior and each of the socio-personal traits of dairy farmers, including education, family annual income, livestock ownership, information-seeking behavior,

extension contact, and knowledge of dairy farmers, at the 0.01 level of probability. At the 0.05 level of probability, entrepreneurial behavior was positively and significantly correlated with experience in dairy farming, land holding, occupation, scientific orientation, economic motivation, and marketing orientation. In contrast, the remaining three variables—age, caste, and family size—did not significantly correlate with entrepreneurial behavior.

Conclusion

According to the survey, the majority of dairy producers exhibited a moderate degree of entrepreneurial behavior. The majority of dairy farmers had a medium degree of acceptance of scientific dairy technologies, followed by high and low, according to the extent of farmer adoption. At the 0.01 level of probability, the correlation coefficients of each of the socio-personal traits of dairy farmers—education, family annual income, livestock ownership, information-seeking behavior, extension contact, and knowledge—showed a positive and significant relationship with entrepreneurial behavior. At the 0.05 level of probability, entrepreneurial behavior was positively and significantly correlated with experience in dairy farming, land holding, occupation, scientific orientation, economic motivation, and marketing orientation. In contrast, the remaining three variables—age, caste, and family size—did not significantly correlate with entrepreneurial behavior.

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