Article can be accessed online at http://www.publishingindia.com

Entrepreneurial Behaviour of Women Dairy Farmers of Kerala State – A Socio-Personal Analysis

P. Reeja George*, T. T. Ranganathan**

Abstract

A study was conducted among 153 women dairy farmers of three districts of Kerala with the objectives of studying the socio-personal profile of women dairy farmers of Kerala state, to identify potential areas for intervention and design of appropriate strategies with a view to improving entrepreneurial traits specifically among women in this sector. Just over one-third (35.30%) of the respondents with one cow unit had low level of education while only 15.68 percent of women with two cow units and 9.80 percent of women with more than two cow units fell in this group. Most of the women in all the three categories had medium level of education (64.05%). Very few women (9.80%) with one cow unit had high level of education. More than half of the women dairy farmers had received trainings. Among women dairy farmers with one cow unit, however more than half had not received any trainings. Nearly 60 percent of those with two cows had received trainings while among respondents with more than two cows the corresponding figure was 68.63 percent. Most of the farm women fell in the two categories up to 50 cents and 51cents to one acre. Just 5.88 percent of the respondents had land holding above two acres while slightly over 12 percent had land holdings between 1.1 acres and 2 acres. None of the women with one cow unit had land holding above two acres while 7.84 percent of those with two cow units and nearly one-tenth of women with more than two cows fell in this category. Nearly half of the respondents (50.98%) with one cow unit had medium level of social participation while the remaining half were nearly equally distributed among the low (25.49%) and high (23.53%) social participation levels. More than half of the women with two cow units (56.86 %) had medium social participation while 27.45 percent and 15.69 percent had high and low social participation respectively.

Keyword: Women Dairy Farmers, Entrepreneurship, Socio-Personal Variables

Introduction

Over the last decade, the defining role played by both entrepreneurs as well as competitive markets has been widely accepted. Conditions in the third world are further exacerbated by the scarcity of both the entrepreneur as well as environments that facilitate them in this process. Entrepreneurship can be viewed in many ways, a few of which include use of individual initiative to transform business, ability to diversify existing enterprises, or to facilitate the process by virtue of by certain individual characteristics such as the ability to identify innovations, act on opportunity, mobilise resources besides managing them all against a background of calculated risks.

Adaptation of technology is a vital component of any successful economy generating activity. This is especially so because the ultimate goal of technological change is not merely economic growth but overall development of an economic agent. Entrepreneurial traits such as need to achieve, risk taking, problem solving, environmental probing and positive self-image may contribute to the adoption of appropriate technology. Conversely, the absence of entrepreneurial traits may hinder the process of technological change whatever the level of infrastructure or institutional facilities. In an increasingly competitive

* Assistant Professor, Department of Veterinary and Ah Extension, Cvas Mannuthy, Thrissur, Kerala, Kerala Veterinary and Animal Sciences University, Kerala, India. Email: reeja@kvasu.ac.in

** Professor, Faculty of Agriculture and Animal Husbandry, The Gandigram Rural Institute Dindigul, Tamil Nadu, India.

environment, the success of animal production enterprises is also dependant, to a great extent, on technological change. In view of the serious setbacks faced by the dairy sector in the state, it is important to look into this aspect as well so that appropriate measures to promote entrepreneurial personalities can be taken.

Keeping this in view, the present study was conducted with the objectives of studying the socio-personal profile of women dairy farmers of Kerala state to identify potential areas for intervention and design of appropriate strategies with a view to improving entrepreneurial traits specifically among women in this sector.

Methodology

The present study was undertaken in three districts of the state of Kerala which were selected from the six districts with the highest cattle population using simple random sampling. The three districts selected were Ernakulam, Palakkad, and Thrissur. A multistage random sampling procedure was used to select the respondents. In the first stage, from each of the three districts selected, simple random sampling was used to select one block from among the first four blocks with the highest cattle population. Accordingly, Alathur, Angamali, and Ollukara blocks were selected from Palakkad, Ernakulam, and Thrissur districts respectively. From among the nine panchayats in Alathur block, Vandazhi panchayat was selected while from among the nine panchayats in Angamali block, Karukutty panchayat was selected, and from among five panchayats in Ollukara block, Nadathara panchayat was selected, in each case by using the procedure of simple random sampling. In the third stage of sampling, from each panchayat, the main milk society with the highest milk collection was identified and from each society a list of all the women dairy farmers with one, two and more than two cows was prepared. A proportionate stratified sample of 51 women dairy farmers were selected from each panchayat so as to include 17 women each with one, two and more than two cow units. Thus, the final sample contained a total of 153 farm women, 51 each with one, two, and more than two cow units from each of the three panchayats. Data were collected through the personal interview method with a structured pretested interview schedule.

The socio-personal variables to be included in the study were selected after consultation with Extension scientists and Experts and extensive review of literature. De and Rao (2001) compiled a list of several socio-personal variables associated with entrepreneurial behaviour that were significant as well as non-significant in past studies.

Socio-personal variables related to entrepreneurial behaviour were identified after relevancy rating by 40 extension scientists for inclusion in the final format of the interview schedule. Judges included extension scientists working in various ICAR Institutes, IVRI and other veterinary colleges who were asked to rate the variables on a four point continuum with scores of 4, 3, 2, and 1 representing most relevant, relevant, less relevant, and least relevant respectively. From a total of 40 judges selected for rating, responses were obtained from 32 judges.Socio-personal variables selected based on the mean relevancy scores being higher than the mean of means were education, trainings received, land holding, and social participation.

Results

Education

Table 1: Distribution of Respondents according to their Educational Status

n = 153

Category	*Herd size*							
	One cow		*Two cows*		*More than two cows*		Total	
	Nos	*%*	*Nos*	*%*	*Nos*	%	Nos	%
Low	18	35.30	8	15.68	5	9.80	31	20.28
Medium	28	54.90	34	66.66	36	70.59	98	64.05
High	5	9.80	9	17.66	10	19.61	24	15.67
Total	51	100.00	51	100.00	51	100.00	153	100.00

Mean: 4.37 *SD: 1.21*

Table 1a: Correlation Coefficients of the Socio-Personal Variables with Entrepreneurial Behaviour

Socio-personal variables	*Correlation coefficient*
Education	0.64**
Trainings received	0.307**
Land holding	0.323**
Social participation	0.335**

***Significant at 0.01 level*

Table 1 showed that just over one-third (35.30%) of the respondents with one cow unit had low level of education while only 15.68 percent of women with two cow units and 9.80 per-cent of women with more than two cows units fell in this group.Most of the women in the three categories had medium level of education (64.05%). Very few women (9.80%) with one cow unit had high level of education. Data in Table 1 indicated that while 17.66 percent of respondents with two cow units had high level of education, 19.61 percent of women with more than two cows had high level of education. Overall results indicated that most of the respondents fell in the medium level of education. However, more number of small herd size respondents fell in the lower category when compared to the other two groups of respondents. There was a significant and positive association between education and entrepreneurial behaviour of the respondents. Results of Duncan's multiple range test also indicated that there was significant difference between the respondents with three herd sizes with regard to overall entrepreneurial behaviour. Saxena and Tripathi (1998) also observed significant differences in levels of entrepreneurial behaviour of rural women belonging to lower and higher categories of family educational status. They further opined that higher educational levels lead the family to adopt improved animal husbandry practices which in turn improve the entrepreneurial traits of rural women. Smith-Hunter, Kapp, and Yonkers (2003) observed that in periods before the industrial revolution when personal skills were important to one's earnings, formal education was not viewed as a crucial factor. However, they opined that with the growth of high technology and heavy competition, education has become increasingly important. So also, technological changes in animal husbandry field have occurred and animals being promoted today are not like the non-descript animals previous held. So, successful dairying entails the adoption of a package of practices for which education is crucial. Prasad (1988) opined that the entrepreneur due to her necessity to deal with formal situations requires at least a minimum level of education. Similar findings were made by Bhattacharya (1979), Lee (1976) and Nandi (1973). Maxwell and Westerfield (2002) observed that the level of innovation among entrepreneurs is dependent upon the entrepreneur's formal education and managerial experience.Their study showed a high correlation between a higher level of managerial experience and more years of education with a higher level of innovation. Khanka (1998) in a study of entrepreneurship in small scale industries in Kumaon reported that the effect of education on the entrepreneur's entry into manufacturing indicated that the willingness to opt for the entrepreneurial career increases with more educational qualifications. Zahir (1994) also observed a positive and highly significant association between entrepreneurial behaviour of sugar cane growers and education. Similar findings were made by Bannerjee and Talukdar (1997) in their study of women entrepreneurs of Assam. However, in a study of women entrepreneurs of Poona, Nandkarni (1982) did not observe any firm relationship between the level of education and the degree of success in business. Saxena and Tripati (1998) observed that family educational status of women dairy farmers of Uttar Pradesh was positively and highly significantly correlated with entrepreneurial behaviour.

Trainings Received

Results in Table 2 indicated that more than half of all the women dairy farmers studied had attended a training programme. Among women dairy farmers with one cow unit, more than half had not attended a training programme. Nearly sixty percent of those with two cows had attended a training programme while among respondents with more than two cows the corresponding figure was 68.63 percent. Lesser participation of women with one cow unit could be due to less social participation and less utilisation of information sources. The results of the study also indicated that training was positively and significantly correlated with the entrepreneurial behaviour of farm women. Keeping this in mind, more proactive steps specifically targeting these women could be emphasized to improve their entrepreneurial skills and thus strengthen their livelihoods. However the results of this study are better that the observations of Subrahmanyeswari, Veeraraghava Reddy, and Sudhakar Rao (2007) who observed that very few women in the

area studied in Andhra Pradesh had high training scores. Further, animal husbandry programmes like any other entrepreneurial programme require in-depth knowledge about the technical aspects of the enterprise (Prasad, 1988) hence it is important that suitable avenues for this be arranged after assessing any training preferences by target groups. Appleton and Balihuta (1996) and Cotlear (1990) also observed that education may have both cognitive and non-cognitive effects upon labour productivity. The author observed that cognitive outputs of schooling include transmission of specific information as well as general skills and proficiencies which may help farmers to acquire and understand information and to calculate appropriate input quantities in a modernizing or rapidly changing environment. Further education may also result in improved attitudes, beliefs and habits which may be instrumental in inculcating entrepreneurial traits such as risk taking, adopting of innovations thrift, as well as enhanced technology-enabled information use and as Rosenzweig (1995) observed such qualities in turn enable farmers to learn the job more efficiently. In this context it is important that measures to promote opportunities and venues available for women dairy farmers to enhance or improve their education be taken.

Table 2: Distribution of Respondents according to Trainings Received

n = 153

Category	*Herd size*							
	One cow		*Two cows*		*More than two cows*		*Total*	
	Nos	*%*	*Nos*	*%*	*Nos*	*%*	*Nos*	*%*
Attended training	22	43.13	30	58.82	35	68.63	87	56.88
Not attended training	29	56.87	21	41.18	16	31.37	66	43.12
Total	51	100.00	51	100.00	51	100.00	153	100.00

Land holding

Table 3: Distribution of Respondents according to their Landholding

n = 153

Category	*Herd size*							
	One cow		*Two cows*		*More than two cows*		*Total*	
	Nos	*%*	*Nos*	*%*	*Nos*	*%*	*Nos*	*%*
Up to 50 cents	33	64.70	20	39.22	10	19.61	63	41.18
51 cents – 1 acre	14	27.45	20	39.22	28	54.90	62	40.52
1.1-2 acres	4	7.85	7	13.72	8	15.69	19	12.42
Above 2 acres	0	0	4	7.84	5	9.80	9	5.88
Total	51	100.00	51	100.00	51	100.00	153	100.00

It is evident from Table 3 that most of the women dairy farmers fell in the two categories, up to 50 cents and 51cents to one acre. Just 5.88 percent of the respondents had land holding above two acres while slightly over 12 percent had land holdings between 1.1 acres and 2 acres. None of the women with one cow unit, had land holding above two acres while 7.84 percent of those with two cow units and nearly one tenth of women with more than two cows fell in this category. Most of the women with one cow unit (64.7%) had land holding up to 50 cents while in the case of those with two cow units equal numbers (39.22% each) had land holding of up to 50 cents and 51 cents to one acre. In the case of women with more than two cows, more than half of them (54 .90 %) had land holdings of size 51cents to one acre while just around twenty percent (19.61 %) fell in the category up to 50 cents. A positive and significant association was observed between land holding and entrepreneurial behaviour. Significant differences were observed in the landholdings of women belonging

to the three herd sizes. Saxena and Tripathi (1998) made similar observations. Pandya (1995) observed that there was a positive and significant association between entrepreneurial behaviour of sugar cane growers and their land holding. Larger holdings would mean more space for cultivation of various crops which would be used as feed substitutes thus contributing to the increased efficiency of the system. Subrahmanyeswari *et al* (2007) however observed a negative association between land holding and entrepreneurial behaviour and they attributed this to the fact that women with smaller holdings could devote much more time and effort to the enterprise.

Social Participation

Table 4: Distribution of Respondents according to their Social Participation

n = 153

Category	*Herd size*							
	One cow		*Two cows*		*More than two cows*		*Total*	
	Nos	*%*	*Nos*	*%*	*Nos*	*%*	*Nos*	*%*
Low	13	25.49	8	15.69	2	3.92	23	15.03
Medium	26	50.98	29	56.86	36	70.59	91	59.48
High	12	23.53	14	27.45	13	25.49	39	25.49
Total	51	100.00	51	100.00	51	100.00	153	100.00

Mean: 2.10

SD: 0.63

The results of this study indicated that nearly half of the respondents with one cow unit had medium level of social participation while the remaining half were nearly equally distributed among the low (25.49%) and high (23.53%) social participation levels. More than half of the women with two cow units had medium social participation while 27.45 percent and 15.69 percent had high and low social participation respectively. Among respondents with herd size of more than two cows, 70.59 percent had medium level of social participation and 25.49 percent had high social participation. Very few women (3.92%) with more than two cows had low levels of social participation. Social participation was positively and significantly correlated with entrepreneurial behaviour of women dairy farmers. Overall figures indicated that most of the women dairy farmers had medium levels of social participation. Subrahmanyeswari *et al*. (2007) observed that most of the women dairy farmers studied had medium levels of social participation. Halakatti, Kamaraddi, and Gowda (2007) also reported that social participation of dairy farmers was significantly and positively related to the adoption of dairy innovations. This could be the reason why higher levels of entrepreneurial behaviour in farm women with higher herd sizes were observed, since as Patel (1995) observed substantial progress in the agricultural sector is said to have been a temptation for famers to go in for modern technology. Or rather, as De (1985) observed agricultural advancement inspires farmers to be entrepreneurial away from their conventional and hereditary vocational system. Çiçek, Cevger, and Tandoğan (2008) also reported a parallel relationship between adoption of innovations and the scale of participation of farmers in social life.

Conclusion

The results of this paper shed light on the importance of placing greater emphasis by policy makers and governmental agencies on ventures as well as programmes that could provide opportunities to enhance the cognitive as well as non-cognitive skills of women dairy farmers. Such measures would definitely have significant implications for promoting entrepreneurial traits among women dairy farmers and thus improving productivity as well as sustaining livelihoods and facilitating equitable growth in the rural economy.

References

Appleton, S., & Balihuta, A. (1996). Education and agricultural productivity: Evidence from Uganda. *Journal of International Developement,* 8, 415-444.

Bannerjee, M., & Talukdar, R. K. (1997). Variables influencing entrepreneurship of women entrepreneurs. *Indian Journal of Extention Education,* 33(1&2).

Bhattacharya, H. (1979). Entrepreneurial development: A behavioral model. *SEDME,* 6(2), 83-98.

Çiçek, H., Cevger, Y., & Tandoğan, M. (2008).Socio-economic factors affecting the level of adoption of innovations in dairy enterprises. *Ankara Üniv Vet Fak erg,* 55, 183-187.

Cotlear, D. (1990). The effects of education on farm productivity. In: Keith Griffin and John Knight. Eds. *Human development and the international development strategy for the 1990s*. London, MacMillan.

De, D. (1985). Status, symbol, and innovative entrepreneurship are predictors of farmers' progressivism. *Journal of Extention System,* (1), 82.

De, D., & Rao, M. S. (2001). *Entrepreneurial behavior of farmers: An axiomatic theory.* Ganga Kavery Publishing house, Varanasi, India.

Halakatti, S. V., Kamaraddi, K., & Gowda, D. S. M. (2007). Determinants of adoption of dairy farm technologies by rural farm women. *Karnataka Journal of Agricultural Sciences,* 20(2), 323-325.

Khanka, S.S. (1998). Development of small scale industries in Assam. *Yojana,* 42(9), 48-54.

Lee, A. (1976). A study of small entrepreneurs and entrepreneurship development programmes in Malaysia.

Maxwell, J., & Westerfield, D. (2002). Technological entrepreneurship characteristics related to adoption of innovative technology S.A.M. *Advanced Management Journal*, 67(1), 9-21.

Nandkarni, S. (1982). Women entrepreneurs: socio economic study with reference to Poona. *Indian Dissertation Abstracts*, 16(8), 317-323.

Nandi, A. (1973). Motives, modernity and entrepreneurial competence. *Journal of Social Psychology,* 91, 127-136.

Pandya, R. D. (1995). Entrepreneurial behaviour of sugarcane growers. *Indian Journal of Extention Education,* 6(4), 1299.

Prasad, A. (1988). *Entrepreneurial behavior under TRYSEM*. Concept publishing Ltd., p. 27.

Rosenzweig, M.R. (1995). Why are there returns to schooling? *AER: Papers and Proceedings of the American Association,* 85, 153-158.

Saxena, D., & Tripathi, H. (1998). Entrepreneurial behavior of milk producers according to their social personal, economic and psychological attributes in women's Dairy cooperatives. *IASSI Quarterly,*17(2), 41-57.

Smith-Hunter, A., Kapp, J., & Yonkers, V. (2003). A psychological model of entrepreneurship. *Journal of the Academy of Business and Economics*.

Subrahmanyeswari, B., Veeraraghava Reddy, K. and Sudhakar Rao, B. (2007). Entrepreneurial behavior of rural women farmers in dairying: A multidimensional analysis. *Livestock Research for Rural Development, 19, Article #15.* Retrieved from http://www.lrrd.org/lrrd19/1/subr19015.htm.

Zahir, M. A. (1994). Entrepreneurship in Punjab: A case study. *Yojana,* 38(8), 24-28.