

SYNOPSIS FOR Ph.D. THESIS WORK

IN

AGRICULTURAL EXTENSION

TITLE OF THE RESEARCH: “A Study on Entrepreneurial and Managerial Abilities of Dairy Farmers in Chhattisgarh”

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INTRODUCTION

Dairying is the most ancient enterprise being practiced in rural settings in India. The dairy sector contributes significantly, in generating employment opportunities and supplementing the income of small and marginal farmers. India ranks first in milk production, accounting for 19 percent of the world's production, achieving an annual output of 187.7 million tonnes during 2018-19 as compared to 176.3 million tonnes during 2017-18 recording a growth of 6.07 percent with the per capita availability of 394 grams per day in 2019 (Basic Animal Husbandry Statistics, DAHD&F, GoI). The total livestock population is 536.76 million in the country showing an increase of 4.8 percent over the livestock census - 2012. The total population in rural and urban areas is 514.11 million respectively with a percentage share of 95.78% for rural and 4.22% for urban areas where the female cattle (cow) population is 145.91 million, increased by 18.6% over the previous census 2012 (Animal census report, 2019).

The state of Chhattisgarh has played an important role by generating self-employment through the dairy sector in the rural areas which in turn provides nutritious food to the rural folks. Milk production in Chhattisgarh increased from 956 thousand tonnes in 2010 to 1,374 thousand tonnes in 2017 growing at an average annual rate of 6.29 percent. The average collection of milk per day has reached over 65,000 liters. It has become possible through 627 dairy cooperative societies across the state (The Pioneer, 2017). The total number of livestock in Chhattisgarh is 1.544 crore where the cattle and buffalo population is 1.1206 crore (NABARD, 2017).

Dairy management efficiency is dependent on the maintenance of facilities related to dairy production and the care of the dairy herd. Often, they are in charge of employees, who directly work in raising, feeding and milking of the herd. The use of scientific-technological knowledge can enhance the dairy management strategies to improve herd health, productivity, farm profitability with an increase in the efficiency of dairying. Management effectiveness is a composite factor involving several components and dependent on knowledge of scientific technology. Knowledge is one of the important components of cognitive behaviour, which plays a major role in the improvement of behavior of individuals. The demand for knowledge and

production of knowledge are basic requirement for raising management effectiveness.

Entrepreneurship is an approach of developing human resources. It is concerned with the growth and development of people towards high level of competency, creativity and fulfillment. This approach helps dairy farmers to augment their potential with responsible outlook which in turn strengthen their abilities to create a climate in which all clients may contribute to the limits of their improved abilities in dairy farming. Dairy enterprise not only provides continuous income and improves living standards of family, but also supplements the income and reduces unemployment to a large extent of the rural poor(Bhosale, S.R. , 2014)

STATEMENT OF THE PROBLEM

No research work is possible in this world without limitation. This is also true for this study:

- ❖ According to World Health Organization (WHO) a person should consume 299 gram of milk every day but in Chhattisgarh per capita milk availability stood at 133 gram per day as per data released central government. So, however, the present need of the state is satisfied at 1.50 to 2 lakh liter milk per day.
- ❖ In the present study, an attempt will be made to, know the factor contributing to management effectiveness and empirically verify the hypothesis of management effectiveness of dairy farming. Thus the present study will be designed to cover the entire dimension and make it more comprehensive.
- ❖ It is also argued that the adoption of scientific dairy practices pertaining to animal husbandry need the infrastructural facilities such as A.I. Centers, equipments, clinical facilities and technical services which are not always available and accessible to all the livestock owners in the Chhattisgarh state.
- ❖ The state of Chhattisgarh has a good number of cattle populations with immense milk producing potential but still in traditional stage of dairy

farming in term of adoption of scientific innovations. There is lack of dairy management, proper entrepreneurship knowledge, unavailability and unorganized of dairy market and other constraints which has hampered the prospect of adopting Scientific dairying in the state, resulting in low profit earning among farmers. Thus, this study will be helpful for dairy farmers to enhance the efficiency of their dairy management through developing the dairy entrepreneurship in the state.

UTILITY OF THE STUDY

1. The study will attempt to provide information regarding socio-personal and economic conditions of dairy farmers.
2. The study would bring into focus on the various problems faced by farmers in carrying out various income generating activities within different production practices.
3. The study would also help the dairy farmers to promote the institutions to move towards a firm direction of developmental approach and solution to real problems faced by the resource poor farmers.
4. The study will be helpful to the farmers to know the technical production knowledge and managerial ability of dairy farming which will help in promoting the way of milk production.
5. The study will be helpful to know the farmers interest in the dairy enterprise and entrepreneurial position of farmers which will be helpful in accelerating the development of dairy entrepreneurship.

OBJECTIVES OF THE STUDY

In this context the present study “A Study on Entrepreneurial and Managerial Abilities of Dairy Farmers in Chhattisgarh” is proposed with the following objectives:-

1. To study the profile of the dairy farmers
2. To assess the entrepreneurial abilities of the dairy farmers
3. To study the managerial efficiency of the dairy farmers

4. To delineate the determinants of entrepreneurial abilities and managerial efficiency of the dairy farmers
5. To ascertain the constraints faced by the dairy farmers and seek the suggestions for overcome their constraint in the study area

FRAMING OF HYPOTHESES

Hypothesis is an idea or explanation for something that is based on known facts but has not yet been proven. In this study the hypothesis will be presented in null form (H_0) as follows:

H_0 = There is no significant variation among the dairy farmers regarding their entrepreneurial abilities

H_0 = There is no significant variation among the dairy farmers regarding their managerial efficiency

H_0 = There is no significant relationship between the entrepreneurial abilities with profile of dairy farmers

H_0 = There is no significant relationship between the managerial efficiency with profile of dairy farmers

H_0 = There is no significant relationship between the determinants of entrepreneurial and managerial abilities of the dairy farmers with the profile of dairy farmers

REVIEW OF LITERATURE

Bardhan *et. al.*, (2012) the study has revealed that marginal and small landholders figure prominently at the higher end of scale of milk production spectrum. This implies that given the right institutional incentives and market infrastructure, they are capable of scaling-up milk production and hence commercialize their dairy enterprises.

Lyimo Macha and Jeckoniah (2013) found that women still bear more burdens in this enterprise such as milking, fetching animal feeds, cleaning barn and marketing of milk products just to mention a few.. A study carried out in Amhara and Oromia National Regional States, Ethiopia revealed that availability of training on livestock, age of household head and off farm activity participation played significant roles on both the probability of dairy technology management and its level of adoption

Dehinenet, et al., (2014) Global milk production is expected to increase at a slower rate in the next decade as feed based dairy operations struggle with high feed costs, while pasture based systems face land competition and water shortages. Developing countries are expected to generate 74% of global milk production gains over the next decade, with India and China alone accounting for 38% of the increase. Global consumption of dairy products in developing countries is projected to grow faster than production, with higher exports from the United States, the European Union, New Zealand, Australia and Argentina.

Yadav K. N. et al., (2014) in his study on 'A study on managerial efficiency of sericulturists regarding tsar silk cultivation in Chhattisgarh' the finding pertaining to overall level of managerial efficiency of sericulture's possessed high managerial efficiency. The overall managerial efficiency and managerial efficiency gap for different improved practice about sericulture production was observed to be 62.59 percent and 37.41 percent respectively.

Rathod and Chandankar (2015) studied the impact of dairy farming and it was found that all the livelihood indicators of respondents significantly increased during the period of dairy farming and also the overall impact of dairy farming on livelihood of farmers was highly significant.

Shibeshi, T.F., (2017) found that the econometric model indicated that the relative influence of different explanatory variables on adoption and intensity of adoption of dairy technologies. A total of ten explanatory variables in the descriptive analysis were included in the model. Among ten explanatory variables, six of them had shown significant influence on adoption of dairy technologies participation.

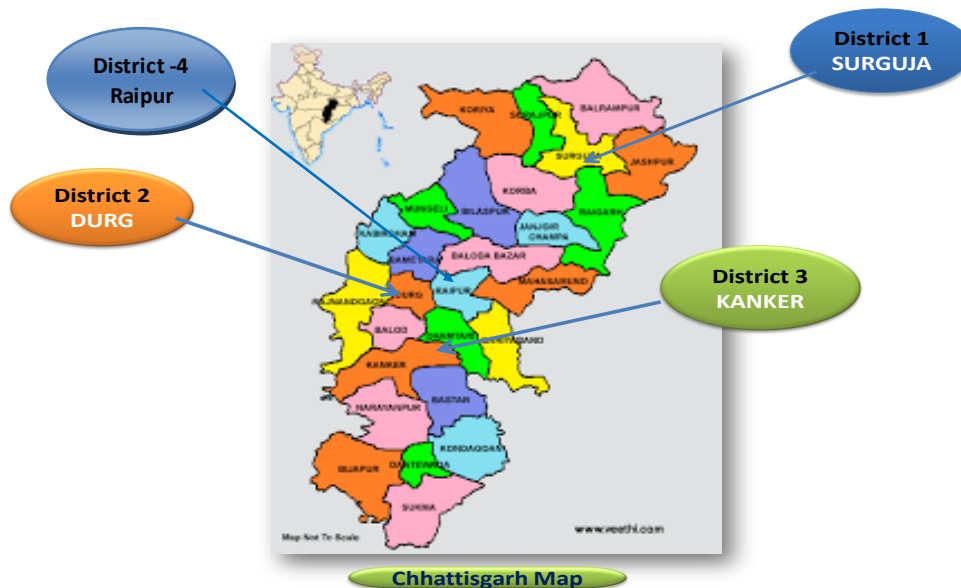
George and Ranganathan (2018) in his study on Entrepreneurial behaviour and attitude of women dairy farmers of kerala state towards commercial dairy farming observed that dairy farm women farm had high level of entrepreneurial behaviour and study point to the need for policy interventions to enhance the entrepreneurial abilities and skills of women dairy farmers so as to improve their overall entrepreneurial behaviour and success in business.

RESEARCH METHODOLOGY

1. Location of research
2. Research design
3. Sampling Design
4. Variables and measurement
5. Methods of data collection
6. Statistical method used

Location of research

Chhattisgarh came into existence on 1st November 2000 as 27th state of India. It is the 10th largest state in India, with an area of 135,194 km² (52,199 sq mi). With a population of 28 million, Chhattisgarh is located in eastern part of India between 17° 46' N and 24° 6' N latitudes. The state is surrounded by 7 states (Madhya Pradesh, Maharashtra, Orissa, Jharkhand, Andhra Pradesh, Telangana & Uttar Pradesh). It is categorised into three zones on the basis of agro-climate, first northern hill region, Baster plateau region and Raipur plain region. In Chhattisgarh founded most of the cow Indigenous Breeds like Tharparkar, Krishna Valley, Sahiwal, Deoni, Gaolao, Red Sindhi, Mewati, Amrit Mahal, Bargur, Binjarpuri, Ghumsuri, Ponwar, Siri and Pulikulam, and Exotic species, like Holstein- Friesian and Jersey- and Crossbreed cattle .



Research Design

Research design is the framework of research methods and techniques chosen by a researcher. It is the set of methods and procedures used in collecting and analyzing measures of the variables specified in the problem research. The present study will be followed ex -post facto Research Design in Chhattisgarh state for study on entrepreneurship ability and management effectiveness of dairy farmers.

Sampling design:

State level Purposive sampling	Region purposive sampling	District level purposive sampling	Block level Simple Random sampling	Village level Simple random sampling	Respondent Randomly selected	Total Sample Size	Selection Procedures
Chhattisgarh	Tribal Region	Sarguja	B ₁	V ₁	20	320	State, Region, district will be selected purposively because of the region divided on the basis of tribal and non- tribal where investigator's familiarity with the culture of people in districts and command in state language, would help in developing rapport with the respondent and block, village, respondent will be selected on basis of simple random sampling
				V ₂	20		
			B ₂	V ₃	20		
				V ₄	20		
		Kanker	B ₃	V ₅	20		
				V ₆	20		
			B ₄	V ₇	20		
				V ₈	20		
	Non-tribal Region	Durg	B ₅	V ₉	20		
				V ₁₀	20		
			B ₆	V ₁₁	20		
				V ₁₂	20		
		Raipur	B ₇	V ₁₃	20		
				V ₁₄	20		
			B ₈	V ₁₅	20		
				V ₁₆	20		

Chhattisgarh is divided into two Regions on the basis of tribal and non- tribal area. Will be selected purposely. Among these, the Region which falls in two districts, namely Surguja, and Kanker from tribal region and Durg and Raipur district from non - tribal region have been also selected purposively. The selection criteria for these four districts purposively because of the investigator's familiarity with the culture of people and command in state language will be helpful for developing the

report from respondents. Eight Block (two from each district) will be considered as the main study area. The selection of Blocks will be done on the basis of simple random sampling technique. From these selected Blocks, a total of 16 villages (two from each Block) will be taken into consideration and will be done on the basis of simple random sampling technique. From each village 20 farmers will be selected for the study randomly. Altogether 320 numbers of farmers from 16 villages would form the sample for the present study.

Variables and their measurement:

Variables	Measurement Techniques
A. Dependent Variables	
Entrepreneurial abilities of dairy farmers (Y ₁)	Entrepreneurial abilities index will be developed
Managerial efficiency of dairy farmers (Y ₂)	Managerial efficiency index will be developed
B. Independent Variables	
a. Socio – personal variables	
Age (X ₁)	On the basis of chronological age at the time of investigation
Caste (X ₂)	Socio-economic scale developed by Pareek and Trivedi (1964) will be used
Education (X ₃)	Scale developed by Pareek and Trivedi (1964) will be used
Social participation (X ₄)	Scale developed by Lokhande (1974) will be used
b. socio- economic variables	
Operation Land Holding(X ₅)	Scale developed by Pareek and Trivedi (1964) will be used
Annual dairy income (X ₆)	Structured schedule will be developed
Dairy House Structure (X ₇)	Structured schedule will be developed
Experience in dairy farming (X ₈)	Structured schedule will be developed
Herd size (X ₉)	Structured schedule will be developed

Milk consumption (X ₁₀)	Structured schedule will be developed
Milk sale (X ₁₁)	Structured schedule will be developed
Milk disposal pattern (X ₁₂)	Structured schedule will be developed
Total milk production (X ₁₃)	Structured schedule will be developed
Economic Motivation (X ₁₄)	scale developed by Jamatia (1999) will be used
c. Socio - communicational variable	
Mass Media Exposure (X ₁₅)	Structured schedule will be developed
Extension contact (X ₁₆)	Structured schedule will be developed
Training Exposure (X ₁₇)	Structured schedule will be developed
d. Psychological variable	
Attitude towards dairy farming (X ₁₈)	scale developed by Gupta and Sohal (1976) will be used
Level of technical confidence (X ₁₉)	Procedure followed by Gelen (2007) will be used with slight modification
Perception towards dairy entrepreneurship (X ₂₀)	Procedure followed by Gelen (2007) will be used with slight modification
C. Constraint	Structured schedule will be developed

Methods of data collection

- ❖ Primary data will be collected from the farmers with the help of pre - tested structured interview schedule through personal interview method.
- ❖ Participatory Rural Appraisal (PRA) method will also be followed for data collection.
- ❖ Secondary data will be collected from relevant Government departments, journals, text books and other reliable sources.

Statistical method used:

The important statistical measures that will be used to summarize the survey or research data are:

The following statistical techniques and tools used in the present study –

1. Descriptive statistics such as Mean, Standard deviation, Coefficient of variation, percentage, and frequency.
2. Relational statistics such as correlation, linear regression, multiple regressions, Path analysis, Factor analysis and principal component analysis.
3. Test statistics – it will be used on the basis of data characteristic.

EXPECTED OUTCOME OF THE STUDY

The study will provide valuable information regarding the profile of dairy farmers and their Entrepreneurial ability and managerial efficiency. The findings will be useful to extension workers, agricultural planners and policy makers to evolve a strategy for effective transfer of technology. So, the study will of great value to extension workers, scholars and researchers, policy makers and administrators engaged in agriculture and rural development especially in Chhattisgarh.

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