

**A STUDY ON
THE DIFFERENTIAL
ENTREPRENEURIAL BEHAVIOUR OF
INDIGENOUS AND NON-INDIGENOUS
DAIRY FARMERS OF
ASSAM**



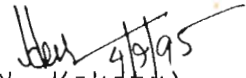
**A
Research Report
Presented to the
Institute of Social Change and Development
Nowzan Road, Uzanbazar, Guwahati-1**

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C E R T I F I C A T E

This is to certify that the Research Report entitled "DIFFERENTIAL ENTREPRENEURIAL BEHAVIOUR OF INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS OF ASSAM". Submitted to the Institute of Social Change and Development, under junior short term Research fellow programme is a record of research work carried out by Sri. Jayanta Kumar Goswami under my personal supervision and guidance.

All help received by him have been duly acknowledged.


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Goswami
4.9.95

(Jayanta Kumar Goswami)

C O N T E N T S

<u>CHAPTERS</u>	<u>PAGES</u>
I. INTRODUCTION	1 - 7
II. REVIEW OF LITERATURE	8 - 17
III. RESEARCH METHODOLOGY	18 - 30
IV. RESULTS AND DISCUSSION	31 - 66
V. SUMMARY AND CONCLUSION	67 - 74
BIBLIOGRAPHY	75 - 78
APPENDIX - A	i - xvii

LIST OF TABLESPAGES

TABLE 1.	SCALE VALUES OF THE ENTREPRENEURIAL TRAITS.	28
TABLE 2.	PROFILE OF THE RESPONDENTS : INDEPENDENT VARIABLES.	32 - 33
TABLE 3.	COMPARATIVE PROFILE OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS : INDEPENDENT VARIABLES.	40
TABLE 4.	PROFILE OF THE RESPONDENTS : ENTREPRENEURIAL BEHAVIOUR.	43
TABLE 5.	COMPARATIVE PROFILE OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS : ENTREPRENEURIAL BEHAVIOUR.	43
TABLE 6.	DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO AGE.	46
TABLE 7.	DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO AGE.	46
TABLE 8.	DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO EDUCATION.	48
TABLE 9.	DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO EDUCATION.	48
TABLE 10.	DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ANNUAL INCOME.	50
TABLE 11.	DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ANNUAL INCOME.	50
TABLE 12.	DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO HERD SIZE.	52
TABLE 13.	DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO HERD SIZE.	52

	<u>PAGES</u>
TABLE 14. DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ATTITUDE TOWARDS DAIRY FARMING.	54
TABLE 15. DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ATTITUDE TOWARDS DAIRY FARMING.	54
TABLE 16. DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ADOPTION BEHAVIOUR.	56
TABLE 17. DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ADOPTION BEHAVIOUR.	56
TABLE 18. DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO KNOWLEDGE LEVEL.	58
TABLE 19. DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO KNOWLEDGE LEVEL.	58
TABLE 20. ZERO ORDER INTER CORRELATION MATRIX OF INDIGENOUS DAIRY FARMERS.	61
TABLE 21. ZERO ORDER INTER CORRELATION MATRIX OF NON-INDIGENOUS DAIRY FARMERS.	62
TABLE 22. DIFFERENCE BETWEEN INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS ("t" VALUE) IN RESPECT OF CERTAIN VARIABLES.	64

LIST OF ILLUSTRATION

FIGURE - 1	: MAP OF KAMRUP
FIGURE - 2	: SAMPLING TECHNIQUE
FIGURE - 3	: CONCEPTUAL MODEL OF ENTREPRENEURIAL BEHAVIOUR
FIGURE - 4	: DIFFERENTIAL ENTREPRENEURIAL BEHAVIOUR BETWEEN INDIGENOUS & NON-INDIGENOUS DAIRY FARMERS (BAR DIAGRAM)
FIGURE - 5	: EMPERICAL MODEL OF ENTREPRENEURIAL BEHAVIOUR

CHAPTER - 1

CHAPTER - I

INTRODUCTION

Cattle rearing in India is as old as her history itself. They are reared ~~not only~~ for their draught power and milk, ^{Cow rearing} but has religious significance too. So important was cattle rearing in the past that it gave rise to a special ^{Cow herdsman} community of ~~cow-herders~~ ^{herds} - the Yadavs.

But scientific ^d Dairy farming, exclusively for producing and selling of milk was very rarely practised in India a century ago. As a matter of fact, fluid milk and its product were not treated as profit earning saleable commodities at all. With the growth of population and increased urbanization since the beginning of the 20th century, there was a rapid increase in demand for milk and its products in urban areas where these items could not be ~~and were not~~ produced in any large quantity.

In our country, the concept of commercial dairy farming has not gained popularity till today. The annual milk production of the country is estimated to be at 54.9 million tonnes which provides 178 gms of milk per head per day (Dairy India, 1992) against 285 gms recommended by the Nutritional Advisory ^D Committee. The inadequate production of milk, the major source of animal protein for ^{persons of all age groups} ~~infants to old~~ and more specially for the vegetarians has by and large affected ~~the~~ human health.

Commercial dairy farming in India was started by the establishment of Military Dairy farms ^{towards} ~~at~~ the end of 19th century. British rulers of India were the first officials to move for

organised dairying in the country. After India became independent, the Government realised that dairying not only contributed towards national health building through consumption of milk, but also created substantial employment opportunities ~~too~~.

The employment generating potentials of dairy farming had attracted the attention of the policy makers of the country. The result was that there came a series of dairy development schemes like the Key Village Scheme, The Intensive Cattle Development Project and the Operation Flood. Yet, the development of the dairy sector in all the regions did not occur at the same pace. Some regions like Gujarat, progressed more, while the North Eastern region lagged far behind.

Assam is the nerve centre for the North Eastern states of India with a bovine population of 72,77,671 lakhs cattle and 6,23,223 lakhs buffalo respectively (Livestock, Census Assam, 1988). But the milk production is very low in comparison to the other states of India. the Per Capita milk consumption of Assam is only 79 gms/day, in comparison to 178 gms in ^{an national average of} National average, whereas in Punjab, Haryana and Gujrat the Per Capita milk consumptions are 702 gms/day, 544 gms/day and 223 gms/day respectively (Dairy India, 1992.)

Now, a common question arises in the minds of the people of the ^{underdeveloped} ~~lagging~~ states whether the differential progress was the consequence of God fatherly treatment to some region and step-motherly treatment to others ? If that were true, then how does one explain that within the same region some ethnic groups have

been more successful in dairy farming than others ? It is observed in Assam that the non-indigenous i.e., Nepalese appears to be more successful in dairy farming than the native Assamese.

There is a general consensus that in Assam mainly in and around Guwahati the non-indigenous dairy farmers are ^{better} ~~higher~~ milk producers. Even assuming that the concerned state organisations including the Extension Education wing of Assam Agricultural University have been undertaking concerted efforts for development of dairy practices through various projects, it is seen that the indigenous dairy farmers are still lagging far behind so far as the milk production is concerned.

Then, does the answer lie in the difference in the entrepreneurial make-up of these two ethnic groups ? This dictates to make a comparative study of the entrepreneurial behaviour of the indigenous and non-indigenous dairy farmers of Assam and hence a study entitling "Differential Entrepreneurial Behaviour of Indigenous and Non-indigenous dairy farmers of Assam" was undertaken with the following specific **objectives :-**

(1) To find out the ~~Socio-Personal~~, ~~Economic~~ and ~~Psychological~~ traits of the indigenous and non-indigenous dairy farmers of Assam.

(2) To measure the entrepreneurial behaviour of the respondents of the two groups.

(3) To find out the differences in the entrepreneurial behaviour of indigenous and non-indigenous dairy farmers.

(4) To find out the association between the socio-personal, economic and psychological characteristics of the two groups of respondents with their entrepreneurial behaviour.

CONCEPT OF ENTREPRENEURSHIP

The entrepreneur is often defined as "one who starts his OWN, NEW and SMALL business " (Drucker, 1985). According to Gaikwad (1978), the term entrepreneur, to many people, means establishing and running factories and industrial enterprises.

However, to view entrepreneurship as a phenomenon associated with setting up of industries only will indeed be very myopic. According to Nanda Purkar (1982), "entrepreneurship can be defined as a creative and innovative response to the environment. These responses can take place in a variety of fields of social endeavour—business, industry, agriculture, education, social work etc."

He further stated "Development of economy of any nation depends primarily on the important role played by entrepreneurs." Entrepreneurship has now been recognised as a concept not only vital for starting industries but also ^{for} in the development of agriculture.

IMPORTANCE OF STUDY

The main importance of the study is to determine the entrepreneurial behaviour of indigenous and non-indigenous dairy farmers of Assam.

Agricultural scientists and economists have recognised that the farmers can also be deemed to be entrepreneur. Efforts are, therefore, made to motivate the farmers with the hope of ~~infusing~~ ^{promoting} the spirit of entrepreneurship in them. Assam is basically an agrarian state and her salvation obviously lies if members of the farming community become more and more effective and efficient entrepreneurs. So, on the basis of the findings of the study an action programme can be designed to increase the success rate of indigenous dairy farmers, should they turn out to be entrepreneurially inferior to non-indigenous dairy farmers.

Along with the ~~above~~ ^{above said} major importance of the study, the present study lies in its ability to yield valuable data on the following aspects -

- (1) Knowledge level of both indigenous and non-indigenous dairy farmers of Assam.
- (2) Attitude towards dairy farming by the indigenous and non-indigenous farmers of Assam.
- (3) Extent of ~~at~~ adoption of improved dairy ^husbandry Practices among the dairy farmers ^{of} both indigenous and non-indigenous.

LIMITATIONS OF THE STUDY

- (1) Though, all the dairy farmers of Assam, both indigenous and non-indigenous, constituted the universe of study, on account of the time-bound nature of the research programme the study was purposively limited to the dairy farmers who were members of West

Assam Milk Producers Co-operative Union Limited (WAMUL) - geographically speaking, the ^{territorial} jurisdiction of WAMUL is limited to Kamrup district.

(2) Although ample care was taken to frame an efficient and reliable instrument of observation and the findings of the investigation on are based on the expressed responses of the respondents, and hence the human biasness on the part of the respondents as well as the investigator cannot be completely ruled out.

(3) The study was conducted in the area under the jurisdiction of the West Assam Milk Producers Co-operative Union Limited, Guwahati, therefore, the application of the research findings and the emerging conclusions beyond the study area may not be applicable.

(4) The study aimed at bringing out the profiles of seven entrepreneurial behavioural traits of the dairy farmers, by using Nandapurkar's Entrepreneurial Behaviour scale. It should not, therefore, be deemed as an exhaustive study of all aspects of entrepreneurial behaviour of the respondents.

(5) The study is neither an investigation nor an evaluation of the performance of West Assam Milk Producers Co-operative Union Limited.

OPERATIONALISATION OF CONCEPTS USED

The terms used in this study have been operationalised as under -

(i) Dairy farmers / Milk producers :- A person owning atleast one ^{milk} ~~milk producing~~ cow of any genetic make-up and who is a member of any Primary Milk Co-operative Society registered with West Assam Milk Producers Co-operative Union Limited.

(ii) Indigenous dairy farmers :- The Dictionary meaning of indigenous people were those who used to 'origin' in and characterizing a particular region and community, native, inborn In this study the native and inborn farmers were termed as indigenous dairy farmers.

(iii) Non-indigenous dairy farmers :- The dairy farmers other than the indigenous one and specially the Nepalese were treated as non-indigenous dairy farmers ^{purpose of} for this study.

ORGANISATION OF THE RESEARCH WORK

The text of the research work has been organised into five chapters. The first chapter is related to INTRODUCTION. It includes statement of the problem, objectives, significance and limitations of the study. Chapter - II deals with the REVIEW OF LITERATURE, followed by RESEARCH METHODOLOGY in chapter - III. The FINDINGS AND DISCUSSIONS are presented in chapter - IV. The SUMMARY AND CONCLUSION are given in chapter - V. The BIBLIOGRAPHY and the APPENDICES are placed at the end of the report.

CHAPTER - II

CHAPTER - II

REVIEW OF LITERATURE

The necessity of a wide and comprehensive review of literature in any research work is indispensable to a researcher in order to get acquainted with the research methods and techniques utilised and interpretation obtained by earlier investigators. There is no dearth of studies on entrepreneurship as a whole and more particularly in the area of business and industry. But ^u~~im~~pirical studies dealing with the agricultural entrepreneurship, particularly relating to the Indian environment are scanty. Studies on ~~s~~ocio-personal, economical, psychological and knowledge level of the agricultural farmers, specially in the field of Animal Husbandry in India and abroad, were also carried out by many researchers. The relevant literature of the present study ^{has} have been presented under the following headings.

1. INDEPENDENT VARIABLES.

- (i) Socio-personal variables
- (ii) Economic variables
- (iii) Psychological variables
- (iv) Knowledge

2. DEPENDENT VARIABLE

- (i) Entrepreneurial variable

1. INDEPENDENT VARIABLES

(i) Socio-personal variables.

A number of studies have been attempted to determine the personal characteristics like age and educational level, of individuals with their entrepreneurial behaviour, adoption behaviour and knowledge level etc.

(a) **Age** :- The year between 25 and 40 have frequently been mentioned as the age when the entrepreneurial decision was most likely to be made. (Mayer and Goldstein, 1961; Shapero, 1971)

Whyte (1968), Sinha (1971) found that majority of dairy farmers who adopted improved practices were from the middle age group.

According to Liles (1974), an individual in the period i.e. 25 to 40 years obtained sufficient experience, competence, and self confidence but had not yet incurred financial and family obligation or a position of prestige and responsibility. Thus, Liles concluded that this was a free choice period.

Vijayaraghavan and Somasundaram (1979) Nataraju and Channegowda (1977) and Jyrwa (1988), in their respective studies revealed that there was no relation between age & knowledge of the respondents. On the other hand, Prashad (1981), Pochari and Tripathi (1983), in their respective studies contradicted the above and indicated that age of the farmers was one of the most important determinants on the level of knowledge of the farmers.

b) Education :- Roberts (1969), Collins and Moore (1970) reported that entrepreneurs appeared to be better educated than general population but less so than business executives. Moreover, there was wide variation in the educational level of different types of entrepreneurs. Derossi (1971) reported that the majority of the entrepreneurs were men with higher education.

Sohi and Kherde (1980) Jyrwa (1988) showed significant correlation between education and knowledge level of farmers.

Kakoty (1980), Hazarika (1983), Yadav and Jain (1984) in their respective studies revealed significant correlation between education and adoption of improved farm practices.

Ahmed (1990), reported that degree of success in farm entrepreneurship was significantly associated with the educational qualification of the respondents.

(ii) Economic variables

a) Annual Income

Mishra and Sinha (1981) reported significant relationship between annual income and knowledge level of improved farm practices. It was supported by Jyrwa (1988) and Das (1991) in their respective studies.

Ogunfiditimi (1981) found significant relationship between annual income and adoption of improved farm practices. Where as Kalogi and Anand (1985) found no significant relationship between annual income and adoption of improved farm practices.

b) Herd size : Rao (1976) reported high significant relationship between herd size and knowledge among the members of co-operative society but non-significant among the respondents of non-cooperative areas.

Sahal and Tyagi (1978), Somasundaram (1979) and Hazarika (1983) stated that herd size and knowledge level of farmers were significantly related. Borgohain (1985) and Saharia (1985) reported a significant correlation between herd size and adoption.

iii) Psychological variables

a) Attitude towards dairy farming

It is a well established fact that certain groups are more strongly associated with entrepreneurship than others. Shapero and Sokol (1982) observed that in America the Jews and the Lebanese were more entrepreneurial than the rest. Further examples of entrepreneurial groups that the two researchers ^{cited} gave were the Ibos of Nigeria, the parsees in India, Gujrati Indians in Africa and Bataks in Indonesia.

The attitude features to be one of the most important psychological determinants of the farmers behaviour, influencing their knowledge and adoption of an innovation.

Somasundaram and Singh (1978), Sidhu (1980) and Das (1991), reported that attitude was significantly and positively correlated with knowledge level.

Saharia (1985) and Singh et.al. (1988), revealed a positive and significant relationship between farmers attitude and their adoption of improved farming practices. However, Borgohain (1985) reported that attitude of farmers had no influence on adoption of farm practices.

b) Adoption behaviour :

Adoption of innovation is a complex psychological procedure and is greatly influenced ~~by~~ not only ^{by} the other psychological variables, but also the socio-economic back ground. Many studies have been conducted to understand adoption behaviour.

Hussain (1968) reported that most of the farmers were non-adopters of improved agricultural practices. Programme Evaluation organisation (1972) observed that it was only the milk production aspect which has got maximum prominence in respect of adoption of improved dairy farming practices as envisaged in the intensive cattle development programme.

Kakoty (1975) observed that 83.00 and 94.00 per cent of the respondents adopted improved breeding and disease control practices respectively. Whereas, adoption level in case of improved feeding and management was very low.

Borgohain (1985) reported that the adoption behaviour of improved dairy husbandry practices was medium among the non-indigenous dairy farmers, whereas it was low among the indigenous dairy farmers of Assam.

Kakoti (1993) found that Nepalese who were traditional rearers of dairy cattle exhibited greater adoption behaviour than non-traditional rearers like the Assamese.

iv) Knowledge

Berna (1960) in a study of entrepreneurship in the Madras state concluded that entrepreneurs besides possessing experience of business and technical knowledge should have access to capital.

Sharma et.al. (1967) in a study conducted in ^Kanpur found that the entrepreneurs there did not adopt entrepreneurial values, and most of them (83 per cent) did not possess any technical knowledge.

The association between the knowledge level and adoption of innovations was discussed by different researchers. Kakoty (1980), Hazarika (1983), Saharia (1985) and Das (1991) in their respective studies established a positive and highly significant correlation between knowledge and adoption of improved farm practices.

Singh et.al. (1991) also revealed that majority of the dairy farmers had a medium knowledge regarding dairy innovations and also found a positive relationship between adoption and overall knowledge of dairy innovations.

2. DEPENDENT VARIABLE.

1) Entrepreneurial variable

Economists and management experts are always keen to understand the kinds of social and cultural factors and environments that result in entrepreneurial events. They are well aware of the fact that the key to a country's economic progress lies in the knowledge of the factors that creates entrepreneurial events.

Here, the available literature germane to entrepreneurship in general and agricultural entrepreneurship in particular, have been reviewed and presented below.

The word "Entrepreneur" has a french origin and it meant an agent, as an undertaker, particularly of musical performances.

Cantillon, in 1755, was the first to give entrepreneurs its business connotation. He defined entrepreneur as "the agent who buys means of production of certain prices in order to combine them into a product that he is going to sell at prices that are uncertain at the moment at which he commits himself to his cost".

Say (1815) wrote to the entrepreneur as the agent who unites all means of production and finds in the value of the products, the re-establishment of the entire capital he employs, and the value of wages, the interest and the rent which he pays, as well as the profits belonging to himself.

Oxford English Dictionary defined entrepreneur as "the director or manager of a public musical institution : one who "gets up" entertainment, especially musical performances". It was not until 1933 when the Dictionary, through a supplement gave the word a place in business. Stating entrepreneur as "one who undertakes ^{an} ~~and~~ enterprise, especially a contractor, - acting as intermediary between capital and labour".

Forster (1953) while describing farming as a business, identified farmer as an entrepreneur, and desired that he should apply business principles to the organisation and management of the farm, if he expects to utilize his resources to the best advantage. Further, he stated that farm management is the function of entrepreneurship. As a business entrepreneur the farmer acts as an organiser and operator of land, labour and capital. His success as a business, as a business proprietor, will depend directly on his ability to organise and manage these factors of production.

Epstein (1967) identified the following characteristics of entrepreneur farmers (1) High education, (2) Contacts with various people, (3) Innovator and (4) Enterprising cultivator who adopted improved practices in farming.

According to Mayer and Goldsmith (1961), Shapero (1971) and Liles (1974), the years between 25 and 40 have frequently been mentioned as the age when the entrepreneurial decision was most likely to be made. In this period an individual had obtained sufficient experience, competence and self confidence but had not

yet incurred financial and family obligation as a position of prestige and responsibility. Liles concluded, this was a free choice period.

Blankenburg (1975) stated that the small farmers did not want to take risk in introducing innovations because of low level of production and low education.

Hundal and Singh (1978) while studying some correlates of progressive farm behaviour, indicated that need for achievement was particularly associated with farm success.

Nandapunkar (1982) stated that "the entrepreneur is an economic man, who strives to maximise his profit by innovation" as a creative and innovative response to the environment, such as in business, industry, agriculture, education, social work and the like".

It is ^a well established fact that certain groups are more strongly associated with entrepreneurship than others. Shapero and Sokol (1982) observed that in America the Jews and the Lebanese were more entrepreneurial than ~~the~~ ^{others} rest. Further examples of entrepreneurial groups that the two researchers ^{cited} ~~gave~~ were the Ibos in Nineria, the parsees in India, Gujrati Indians in Africa and Bataks in Indonesia. The entrepreneurial behaviour of these groups could be interpreted in terms of their preceptions of desirability and of fearibility of entrepreneurial events which in turn were ^{the} products of cultural and social environment.

Ahmed (1990) reported that ^{the} degree of success in farm entrepreneurship was not associated with such socio-personal traits like caste, marital status, family size, head of family status, and family decision making process, but significantly associated with their educational qualification, social participation and primary family occupation.

CHAPTER - III

CHAPTER - III

RESEARCH METHODOLOGY

The results of any study are likely to be sound, and free from the hazards of being questioned or even nullified to the extent that these are based on a good research design in which instrument(s) of high reliability and validity has been employed. Keeping in view the limitations of social studies in general and those concerning entrepreneurial behaviour in particular, an effort was made to use a suitable research design for conducting the present study in which good procedures of measurement have been attempted. The procedures and methods employed in collecting empirical data and techniques of its processing are discussed in this chapter under the following headings :-

- (1) Universe and Locale of study.
- (2) Sampling techniques.
- (3) Selection of variables (unit of study).
- (4) Definition and measurement of the variables.
- (5) Construction of research schedule.
- (6) Pretesting of research schedule.
- (7) Collection of data.
- (8) Analysis of data.

1. UNIVERSE AND LOCALE OF STUDY

All the ^{dairy} farmers of Assam, both indigenous and non-indigenous, constituted the universe of ^{the} study. On account of the time-bound nature of the research programme the study was con-

ducted on dairy farmers who were members of west Assam Milk Producer's Co-operative Union Limited - geographically speaking, the ^{territorial} jurisdiction of WAMUL is limited to Kamrup district. So Locale of study was the west-Assam Milk Producer's Co-operative Union Limited.

2. SAMPLING TECHNIQUE

- a) Selection of dairy co-operative Societies.
- b) Selection of respondents.

a) Selection of Dairy cooperatives Societies

Out of the 32 functional Dairy Co-operative Societies (DCS) registered under WAMUL, ten Dairy Co-operative Societies were purposively selected for the study for reasons of communication~~al~~ accessibility.

b) Selection of respondents :-

Name of the members from each of the selected dairy co-operative societies were collected and on the basis of their ethnicity they were stratified as "indigenous dairy farmers" and "non-indigenous dairy farmers". It was found that the distribution of indigenous and non-indigenous dairy farmers of the dairy co-operatives societies under WAMUL was not similar and the number of non-indigenous population was more in the study area. So following technique was used to select the respondents.



FIG : 1 : MAP OF KAMRUP (WITH REFERENCE TO MILK CO-OPERATIVES OF WAMUL UNDER STUDY).

Let N_1 = number of indigenous dairy farmers in a co-operative society.

N_2 = number of non-indigenous dairy farmers in a co-operative society.

Ten individuals have been drawn from each co-operative under study using proportional allocation method of stratified random sampling as follows

$$\frac{n_1}{N_1} = \frac{n_2}{N_2}$$

where n_1 = number of indigenous responded^{nts} selected from N_1 .

n_2 = number of non-indigenous responded^{nts} selected from N_2 .

Such that $n_1 + n_2 = 10$.

Thus the total number of respondents were 100 comprising 60 non-indigenous and 40 indigenous dairy farmers.

3. SELECTION OF VARIABLES/UNIT OF STUDY.

To fulfil the objectives of the study, based on the review of literature and discussion with the scientists and experts in the field, the relevant^y variables thus selected are discussed under the following subheads :-

A. INDEPENDENT VARIABLE.

B. DEPENDENT VARIABLE.

A. INDEPENDENT VARIABLE :-

i) Socio-personal variables

a) Age b) Educational level

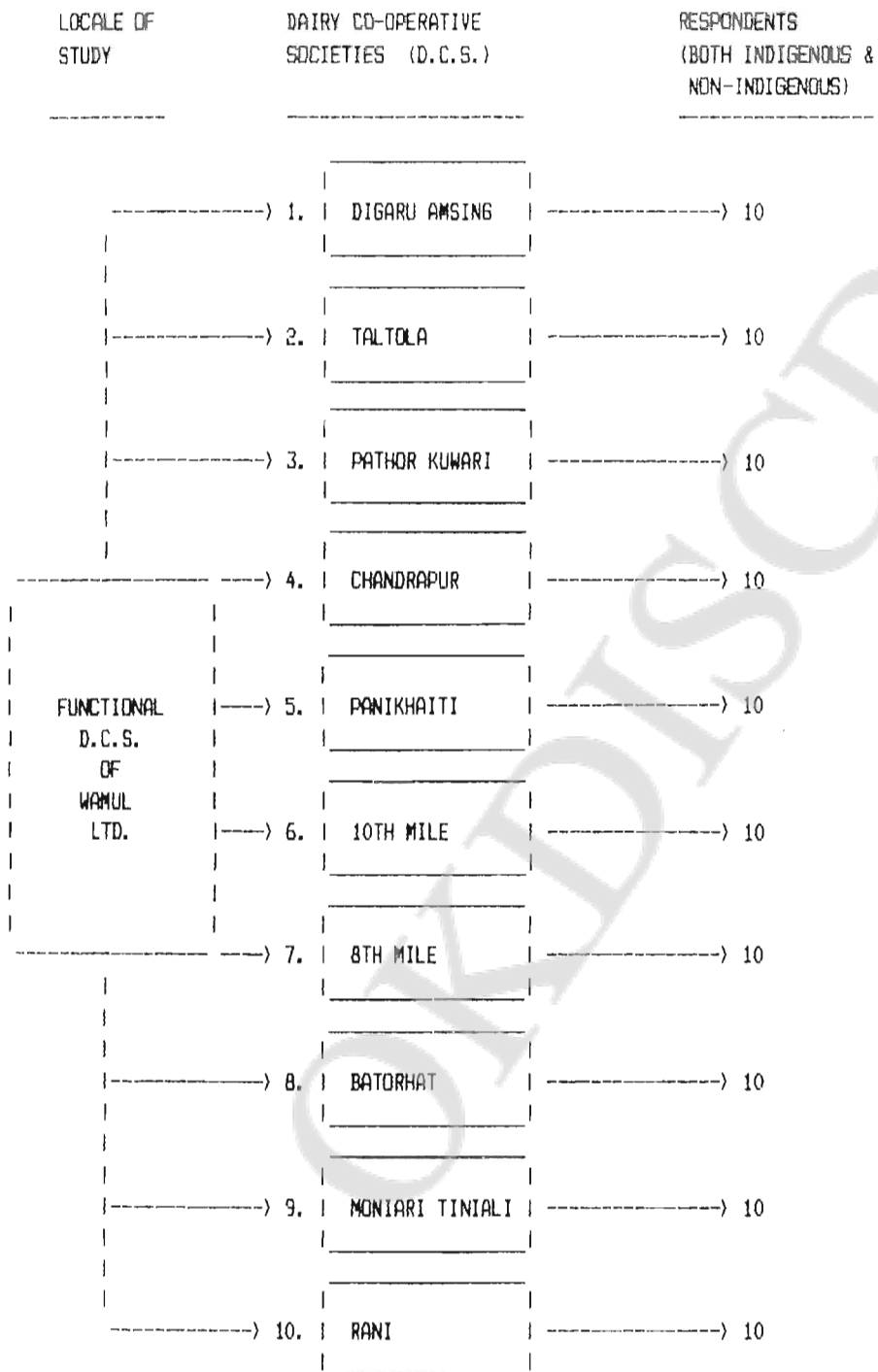


FIGURE : 2. SAMPLE TECHNIQUE

ii) Economic variables

- a) Annual Income b) Herd size

iii) Psychological variables

- a) Attitude towards dairy farming.
- b) Adoption behaviour

iv) Knowledge test

D. DEPENDENT VARIABLE :-

Here the dependent variable was the Entrepreneurial behaviour which is comprising with following subheads.

- i) Innovativeness
- ii) Decision making
- iii) Information seeking behaviour
- iv) Risk taking orientation
- v) Ability to co-ordinate entrepreneurial activities.
- vi) Leadership ability
- vii) Cosmopolitanism ~~Cosmopolitanism~~

4. DEFINITION AND MEASUREMENT OF THE VARIABLES.

There are four categories of independent variables comprising with few subheads. The definition and measurement of these traits are presented here under.

i) Socio-Personal variables

- a) Age : It refers to the chronological age of the respondent as revealed by the respondents themselves at the time of

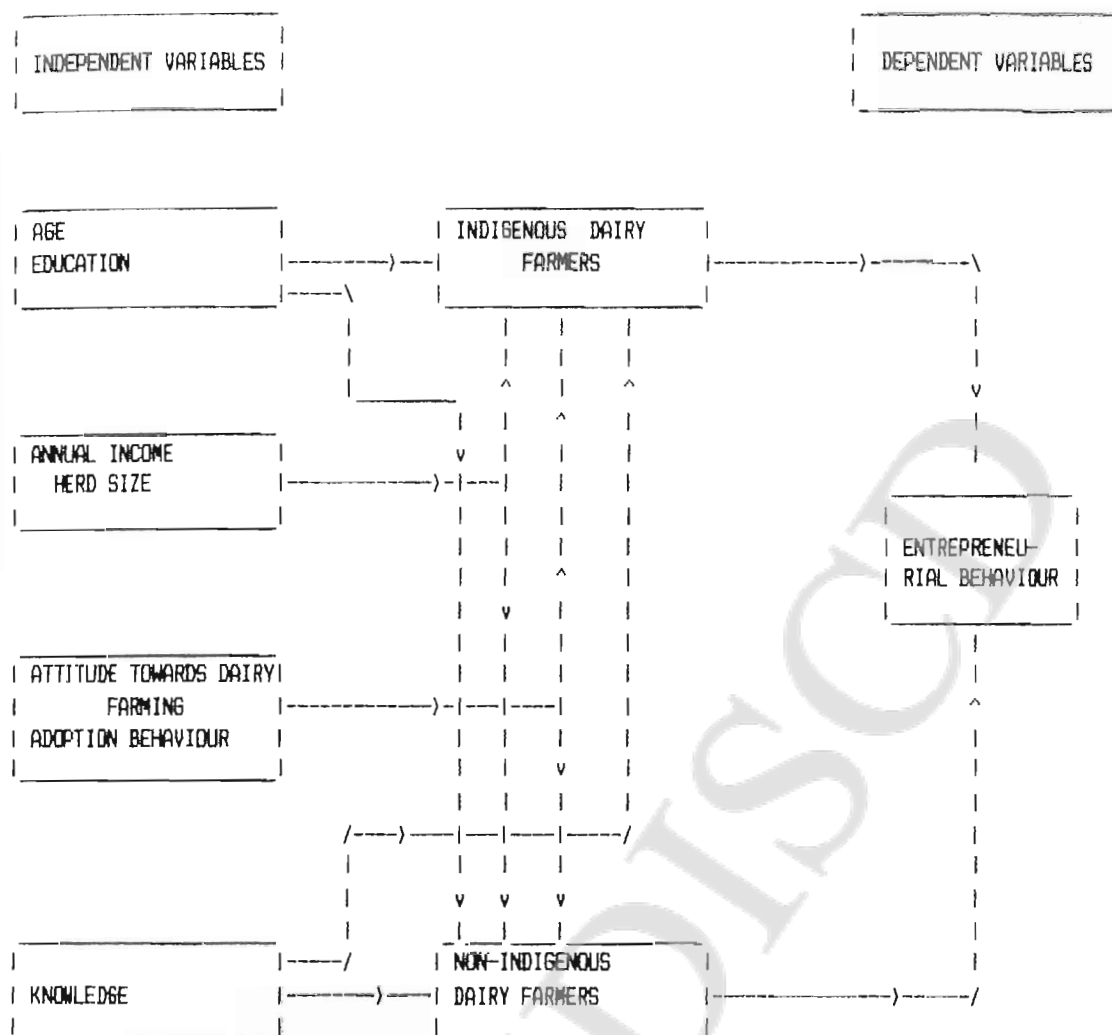


FIGURE - 3 - CONCEPTUAL MODEL OF ENTREPRENEURIAL BEHAVIOUR.

interviews. It is expressed in years and rounded after to the next highest whole number. The method of categorisation was based on observed Mean $\pm$ S.D.

b) Educational level : It refers to the academic qualification of the respondents acquired through formal schooling. The categories were "Illiterate", "Read & Write", "Upto H.S.L.C", "Above H.S.L.C".

ii) Economic variables

a) Annual family income : It is considered as the gross annual receipt of the respondents' families as reported by the respondents themselves from the primary family occupation as well as from any subsidiary occupation(s) including the respondents' own economic activities. The method of categorisation was based on Mean $\pm$ S.D.

b) Herd size : It is the total number of cattle heads including their ^yprogenies reared by the respondent. It was measured by direct questioning. The categorisation of herd size was based on Mean $\pm$ S.D.

iii) Psychological variables

a) Attitude towards dairy farming :

The variable "Attitude towards dairy farming" refers to the respondent's degree of favourableness or unfavourableness towards scientific dairy farming. This variable was measured by the attitude scale developed by Gupta and Sohal (1976). The

theoretical maximum and minimum attainable scores in the scale were 24 and 8 respectively. Method of categorisation was based on Mean $\pm$ S.D.

b) Adoption behaviour :

It was conceptualized as an action taken by the dairy farmers to make use of different dairy husbandry practices. The adoption behaviour of the respondent was taken as the sum total of the extent of adoption of certain selected dairy farming practices covered by the study on the basis of following criteria :-

- i) All the selected practices were applicable to the area under study.
- ii) All these practices had been recommended by extension workers at one time or other.
- iii) The practices were adopted by some of the respondents.

After a thorough discussion with concerned subject matter specialists and extension workers, and technique followed by Borgohain (1985), eighteen different practices were selected under four major practices—Area of Breeding, Area of Management, Area of Disease Control and Area of Feeding. The theoretical maximum and minimum scores possible on this scale stand at 33 and 2 respectively.

The total obtained score was then converted to an Adoption Quotient using the formula here under :-

$$AQ = \frac{E}{P} \times 100$$

Where AQ = Adoption Qu⁰otient of the respondent.

E = Extent of adoption i.e. score obtained by the respondent.

P = Potentiality of adoption i.e. maximum possible attainable score.

iv) **Knowledge test** : It is the degree to which factual information is ^{acquired} possessed by the respondents regarding dairy farming. Knowledge was measured in the present investigation by using a modified knowledge test adopted by Borgohain (1985) and Kakati (1993) which comprised of a set of fifteen questions with a maximum theoretical attainable score of 24. The score obtained by respondents was then converted into a knowledge index with the help of the following formula :-

$$KI = \frac{EK}{PK} \times 100$$

KI = Knowledge Index.

EK = Scores obtained by a respondent.

PK = Maximum attainable score.

B. DEPENDENT VARIABLE

i) **Entrepreneurial Traits** : In this study, the methods adopted to measure the seven entrepreneurial traits are based, with certain modifications, on the Entrepreneurial Behaviour Scale developed by Nandapurkar (1982). Since all the seven traits were

assumed to be of equal significance, the raw scores obtained by the respondents for each of the subcomponents was converted to percentage. Details are furnished in Appendix A.

(i) Innovativeness : It is the degree to which an individual adopts new ideas relatively earlier than others in his social system (Rogers and Svenning, 1969).

In the present study, the scale applied by Nandapurkar (1982) was used with slight modification. The respondents were provided with a set of four statements, all related to attitudes toward innovativeness but each differing in degree. Scores were assigned to each of the statement and innovativeness was calculated on the basis of the statement the respondent agreed with.

(ii) Decision Making Behaviour : It is the degree to which an individual is independent in making decision relating to his enterprise. Nandapurkar (1982) used ten statements to measure decision making of the respondents. Response categories for each of the items were "Not Considered", "Considered after consultation", and "considered independently". The alternatives were given the scores 0, 1, and 2, in the order given, and the total score was computed for each respondent by summing the scores recorded. The score was then converted to percentage. In the present study ten statement, used to measure decision making of the indigenous respondents and five statement used to measure decision making of the non-indiginenous respondents.

(iii) Information Seeking Behaviour : It refers to the degree of frequency of contact by an individual with various information sources (Nandapurkar, 1982). In the present case, the information seeking behaviour of the respondents was measured on a three point response category, viz., "Never", "Less Frequently" and "Frequently", with score of 0, 1, and 2, assigned respectively to various sources of information. The total score was computed for each respondent by summing the score obtained. The score was then converted to percentage.

(iv) Risk Taking Orientation : It refers to the degree to which the entrepreneur is oriented towards risks and uncertainty and has courage to face the consequences and problems associated with entrepreneurship. The risk taking orientation of the respondents was measured with the help of the Risk Preference Scale developed by Supe and Singh (1969). Summation of the total score showed the respondent's riskability score.

(v) Ability to Co-ordinates Entrepreneurial Activities : It is defined as the degree to which an individual co-ordinates action in a time dimension (Nandapurkar, 1982). It was measured along a three point scale. The maximum score on the scale was 10.

(vi) Leadership Ability : It is the degree to which an individual initiates, motivates or influences the action of other fellows. In the present study, this variable was measured along a three point rating scale developed by Nandapurkar (1982). The continuum consisted of three response categories, viz., "Always", "Sometimes", and "Never", assigned with score of 2, 1, and 0 in

that order. Maximum score was 10.

(vii) Cosmopoliteness : It is defined as the degree to which an individual is oriented outside his social system. In the present study, $\times$ cosmopoliteness^{anism} was measured by slightly modifying the scale used by Nandapurkar (1982) to suit the requirements of the study to consist of only five items (Appendix A). Each item was scored by giving two points if the respondent has travelled outside his social system and visited different locations, and zero if he has not travelled. Five was the maximum score that could be obtained.

ENTREPRENEURIAL BEHAVIOUR INDEX : The index, which has been developed by Nandapurkar (1982) is a derived statistic, computed by aggregating the scores obtained by the respondent in the seven entrepreneurial components and their respective scale values. The formula is as follows :

$$E.B.I. = \frac{\sum_o (S_o \times S.V.)}{\sum_{max} (S_{max} \times S.V.)} \times 100$$

Where,

E.B.I. = Entrepreneurial Behaviour Index

S_o = Obtained score of Component

S_{max} = Maximum possible score of Component

S.V. = Scale Value of Component

The theoretical maximum and minimum scores possible on this index stand at 100 and zero respectively.

TABLE - I SCALE VALUES OF THE ENTREPRENEURIAL TRAITS

Sl.No	Entrepreneurial Traits	Scale Values
1.	Innovativeness	7.93
2.	Decision Making Behaviour	6.99
3.	Information Seeking Behaviour	5.71
4.	Risk Taking Propensity	5.01
5.	Ability to co-ord. Ent. Activities	4.11
6.	Leadership Ability	2.13
7.	Cosmopolitaness	1.47

5. COSTRUCTION OF RESEARCH SCHEDULE

Keeping ^{in view} the objectives of this research programme in focus relevant variables were selected to obtain meaningful results. Interview schedule was prepared by incorporating all the variables. Teachers of the Department of Extension Education, College of veterinary science, Khanapara and experts in related fields were consulted in the construction of the interview schedule. The interview schedule used by many workers namely Borgohain. (1985), Ahmed (1990), Kakoti (1993) were cosulted in the preparation of the Interview schedule.

The Interview schedule comprised of following five parts:

- Part A - Socio - Personal variable
- Part B - Economical variable
- Part C - Psychological variable
- Part D - Knowledge Test
- Part E - Entrepreneurial variable

The Entrepreneurial Behaviour scale developed by Nandapurkar (1982), with certain modification was the basic of part () of the research schedule. Scale values of Nandapurkar (1982) were employed, as such, in the study.

6. PRE-TESTING OF RESEARCH SCHEDULE

Before final administration of the prepared schedule, the draft interview schedule was pre-tested with the non sample respondents with a view to locate ambiguity and redundancy. In the light of pre-test, the interview schedule was modified as and where considered appropriate.

7. COLLECTION OF DATA

Data were collected from the respondents through structured personal interview. The interviews were conducted during the months of April and May 1995. For the interview the majority of respondents were intimated at their residences and a few at the offices of the Dairy Co-operative societies.

8. ANALYSIS OF DATA

The statistical methods used for the purpose of tabulation and analysis of data can be grouped into two categories. The first was descriptive statistics, such as frequencies, percentages, means and standard deviations.

Percentages were used for preliminary analysis of independent and dependent variables and also for making simple comparison.

The second category include --

1. Pearson's Product-Moment Correlation co-efficient (r)
2. "t" test

1. Pearson's Product-moment correlation co-efficient (r) was used to find out association between independent and dependent variables of both indigenous and non-indigenous dairy ~~farmers~~ ^{farmers} ?

2. "t" test was used to study the significant difference of the Entrepreneurial behaviour of the indigenous and non-indigenous dairy farmers. Along with the Entrepreneurial behaviour the differences between attitude toward dairy farming, Adoption behaviour and knowledge level of both indigenous and non-Indigenous farmers were evaluated.

CHAPTER - IV

CHAPTER - IV

RESULTS AND DISCUSSION

In this chapter, the results of the study along with the discussion are reported in four sections.

1. PROFILE OF RESPONDENTS
2. DISTRIBUTION OF THE RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO VARIOUS INDEPENDENT VARIABLES
3. RELATIONAL ANALYSIS BETWEEN INDEPENDENT AND DEPENDENT VARIABLES
4. DIFFERENTIAL STUDY BETWEEN THE INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS.

1. PROFILE OF RESPONDENTS :-

The profile of the respondents has been studied from two broad angles -

(A) INDEPENDENT VARIABLES

- (a) Socio - personal variables
- (b) Economic variables
- (c) Psychological variables
- (d) Knowledge level

(B) DEPENDENT VARIABLE

(a) Entrepreneurial Behaviour

The data concerning the various variables of the respondents are presented in Tabular form. The tables also include, wherever applicable, Mean, standard deviation and the Range of the values of these variables. This has been done to have a clearer view of the distribution of the respondents.

The relevant discussions each variables are presented under the following sub-heads.

TABLE - 2. PROFILE OF THE RESPONDENTS : INDEPENDENT VARIABLES

VARIABLE	GROUP	CATEGORY	FREQUENCY (%)	MEAN	S.D	RANGE
1. Age (in years)	Indigenous	Young (< 36)	7	17.50		
		Mid Age (36 to 52)	25	52.50	44.32	± 8.03
		Old (> 52)	8	20.00		
	Non-Indigenous	Young (< 36)	12	20.00		
		Mid Age (31 to 51)	35	58.33	41.15	± 10.14
		Old (> 51)	13	21.67		
2. Educational level	Indigenous	Illiterate	3	75.00		
		Read and Write	6	15.00		
		Upto H.S.L.C	10	25.00		
		Above H.S.L.C	12	52.50		
	Non-Indigenous	Illiterate	11	18.33		
		Read and Write	22	36.67		
		Upto H.S.L.C	17	28.33		
		Above H.S.L.C	10	16.67		
3. Annual income (in thousand rupees)	Indigenous	Low (< 31,909)	5	12.50		
		Medium (31,909 to 82,641)	28	70.00	57275	± 25365.30
		High (> 82,641)	7	17.50		
	Non-Indigenous	Low (< 52,362)	9	15.00		
		Medium (52,362 to 1,73,170)	43	71.67	112765.67	± 60404.57
		High (> 1,73,170)	8	13.33		
4. Herd size (total nos of cattle)	Indigenous	Small (< 3)	5	12.50		
		Medium (3 to 12)	28	70.00	7.67	± 4.64
		Large (> 12)	7	17.50		
	Non-Indigenous	Small (< 11)	9	15.00		
		Medium (11 to 35)	36	60.00	23.28	± 12.30
		Large (> 35)	15	25.00		
5. Attitude towards dairy farming (in percentage)	Indigenous	Unfavourable (< 72.28)	7	17.50		
		Neutral (72.28 to 83.34)	29	72.50	77.81	± 5.53
		Favourable (> 83.34)	4	10.00		
	Non-Indigenous	Unfavourable (< 73.09)	6	10.00		
		Neutral (73.09 to 82.51)	41	58.33	77.80	± 4.71
		Favourable (> 82.51)	13	21.67		

TABLE - 2. PROFILE OF THE RESPONDENTS : INDEPENDENT VARIABLES

VARIABLE	GROUP	CATEGORY	FREQUENCY (%)	MEAN	S.D	RANGE
16. Adoption of improved Dairy practices	Indigenous	Low ((48.86)	11 27.50			48.48 -
		Medium (48.86 to 65.94)	124 60.00	57.40	+ 8.54	78.79
		High (), 65.94)	5 12.50			
16. (in percentage)	Non-Indigenous	Low ((56.84)	6 10.00			
		Medium (56.84 to 70.62)	43 71.67	63.73	+ 6.89	51.51 - 75.75
		High (), 70.62)	11 18.33			
17. Knowledge of improved Dairy practices	Indigenous	Low ((44.02)	7 17.50			
		Medium (44.02 to 76.58)	125 62.50	60.30	+16.28	37.50 - 91.66
		High (),76.58)	8 20.00			
17. (in percentage)	Non-Indigenous	Low ((62.44)	9 15.00			
		Medium (62.44 to 84.76)	41 68.33	73.60	+ 11.16	54.16 - 91.66
		High (),84.76)	10 16.67			

I. GENERAL PROFILE OF RESPONDENTS.

A) INDEPENDENT VARIABLES

a) Socio-personal variables

1) Age.

i) Indigenous respondents :- Table - 2 indicates that the majority (62.50 percent) of the respondents fall in the Mid-age group, while only 17.50 percent of the respondents fall in the young age group. The rest (20 percent) belong to the old age group.

The age of the indigenous respondents ranged between 26 and 60 years.

ii) Non-Indigenous respondents :- Table - 2, indicates that majority (58.33 percent) of the non-indigenous respondents fall in the mid age group, while 20 per cent fall in the young age group and 21.67 per cent fall in the old age group.

The age of the non-indigenous respondents ranged between 22 to 55 years.

2. Educational level

i) Indigenous respondents : It is found in Table-2 that the majority 52.50 per cent population fall in the above HSLC category where as 25 per cent read upto HSLC, 15 per cent could read and write and 7.50 per cent were illiterate.

It can be concluded that most of the indigenous dairy farmers have higher educational level.

ii) Non-indigenous respondents : It is evident from the Table-2 that the 36.67 per cent population could only read and write, where as 28.33 per cent ^{had} upto HSLC, 18.33 per cent illiterate and 16.67 per cent ^{belong} ~~fall~~ ^{used} for the above HSLC category.

It can be concluded that most of the non-indigenous dairy farmers have low level of education.

b) Economic variables.

1) Annual Income.

i) Indigenous respondents : Table-2 indicates that the majority (70 per cent) of indigenous dairy farmers had the medium annual income, 17.50 per cent had high annual income and 12.50 per cent had low annual income.

The annual income of the indigenous respondents ranged between Rs.26,000 to 1,25,000 per annum.

ii) Non-Indigenous respondents :- Table - 2 reveals that the majority (71.67 percent) of the Non-Indigenous dairy farmers had the medium annual income, 13.33 percent had the high annual income and 15 percent had the low annual income.

The annual income of the non-indigenous respondents ranged between Rs. 45,000 to Rs. 2,70,000.

2) Herd size

(i) Indigenous respondents : It can be seen from the Table - 2 that ~~the~~ majority (70 percent) of the indigenous dairy farmers had a medium herd size, 17.50 percent had large and 12.50 percent had small herd size.

The herd size of the indigenous respondents ranged from 2 to 20 numbers.

(ii) Non-Indigenous respondents : It is indicated in the Table - 2 that most of the non-indigenous dairy farmers (60 percent) had a medium herd size, 25 percent had the large herd size and 15.00 percent had small herd size.

The herd size of the non-indigenous respondents ranged from 7 - 60 numbers.

c) Psychological variables

1) Attitude towards dairy farming

(i) Indigenous respondents : It can be observed from the Table - 2 that only 10 percent of the indigenous dairy farmers had favourable attitude towards dairy farming, whereas 72.50 percent and 17.50 percent respectively had ~~Neutral~~[~] and unfavourable attitude towards dairy farming.

The attitude towards dairy farming of the indigenous dairy farmers ranged from 70.83 to 91.66 percent.

(ii) Non-indigenous respondents : It is evident from the Table - 2 that 21.67 percent of the non-indigenous respondents had favourable attitude towards dairy farming, whereas the majority (68.33 percent) had neutral and 10 percent had unfavourable attitude respectively.

The attitude towards dairy farming of the non-indigenous dairy farmers ranged from 66.66 to 87.50 percent.

2) Adoption behaviour

(i) Indigenous respondents : The table - 2 reveals that most of Indigenous respondents (60.00 percent) had medium level adoption of improved animal husbandry practices, whereas 27.50 percent and 12.50 percent of respondents had low and high level of adoption respectively.

The adoption level of the Indigenous dairy farmers ranged from 48.48 to 78.79 percent.

(ii) Non-indigenous respondents : The table - 2 shows a clear majority of 71.67 percent of the non-indigenous respondents had medium level adoption of improved animal husbandry practices, whereas 18.33 percent of respondents and 10 percent of respondents had high and low level of adoption respectively.

The adoption level of the non-indigenous dairy farmers ranged from 51.51 to 75.75 percent.

d) Knowledge level

(i) Indigenous respondents : Knowledge in respect of ^aAnimal Husbandry practices showed that as high as 62.50 percent of the respondents had medium knowledge level, whereas 20 percent and 17.50 percent of the indigenous respondents had high and low level of knowledge respectively (Table - 2).

The knowledge level of the indigenous respondents ranged from 37.50 to 91.66 percent.

(ii) Non-indigenous respondents : The table - 2 shows that more than two-third of the respondents (68.33 percent) had medium level of knowledge whereas 16.67 percent and 15 percent of the respondents had high and low knowledge level.

The knowledge level of the non-indigenous respondents ranged from 54.16 to 91.66 percent.

General profile of an Indigenous Dairy Farmer :

The collected data reveals that an Indigenous Dairy Farmer is middle aged - between 36 to 52 years of age, a matriculate (HSLC), earning an annual income of Rs. 32,000 to Rs. 82,000 approx. have a medium herd size of 3 to 12 animals. He has a neutral attitude towards dairy farming, a medium level knowledge and adoption of improved practices.

General profile of a Non-Indigenous Dairy Farmer :

From the study it is found that a Non-Indigenous Dairy farmer is middle aged - between 31 to 51 years of age, he has an education below HSLC, with an annual income of Rs. 52,000 to Rs. 1,73,000 approx. and a medium herd size of 11 to 35 animals. He has a neutral attitude towards dairy farming, a medium level of knowledge and adoption of improved practices.

II) COMPARISON OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS IN RESPECT OF INDEPENDENT VARIABLES :**a) Socio-personal variables**

(1) Age : table - 3 indicates that 67.50 percent and 51.67 percent, the highest in both the groups respectively are middle aged (33 to 51 years).

It can be observed that 26.66 percent of the Non-Indigenous respondents fall in the young age group i.e., below 33 years, whereas there is only 12.50 percent of the Indigenous respondents in this category.

(2) Educational level : It is clear from the table - 3 that the indigenous dairy farmers have higher ^{er} educational level than the non-indigenous dairy farmers.

TABLE - 3 COMPARATIVE PROFILE OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS : INDEPENDENT VARIABLES

VARIABLE	CATEGORY	INDIGENOUS N = 40		NON-INDIGENOUS N = 50		TOTAL FREQ-CUM- PERCENTAGE	MEAN	S.D	RANGE
		FREQ	%	FREQ	%				
11. Age (in years)	Young (< 33)	5	12.50	16	32.00	21			
	Mid Age (33 to 51)	27	67.50	31	62.00	58	42.42	+9.44	22 - 60
	Old (> 52)	8	20.00	13	26.00	21			
12. Educational level	Illiterate	3	7.50	11	22.00	14			
	Read & write upto HSLC	6	15.00	22	44.00	28			
	Above HSLC	10	25.00	17	34.00	27			
		21	52.50	10	20.00	31			
13. Annual Income (in thousands rupees)	Low (< 34,129)	5	12.50	0	0.00	5			
	Medium (34,129 to 1,47,011)	35	87.50	44	88.00	79	90570	+56441.53	26,000 - 270000
	High (> 1,47,011)	0	0.00	16	32.00	16			
14. Herd size (total nos. of cattle)	Small (< 4)	8	20.00	0	0.00	8			
	Medium (4 to 30)	32	80.00	39	78.00	71	16.80	+12.74	2 - 60
	Large (> 30)	0	0.00	21	42.00	21			
15. Attitude towards dairy farming (in percent)	Unfavourable (< 72.77)	7	17.50	7	14.00	14			
	Neutral (72.77 to 82.83)	24	60.00	40	80.00	64	77.80	+5.03	66.66 - 91.66
	Favourable (> 82.83)	9	22.50	13	26.00	22			
16. Adoption of improved Dairy practices (in percentage)	Low (< 53.02)	17	42.50	6	12.00	23			
	Medium (53.02 to 69.36)	20	50.00	43	86.00	63	61.19	+8.17	46.48 - 78.79
	High (> 69.36)	3	7.50	11	22.00	14			
17. Knowledge of improved Dairy Husbandry practices (in percentage)	Low (< 53.40)	13	32.50	0	0.00	13			
	Medium (53.40 to 83.16)	24	60.00	47	94.00	71	68.28	+14.88	37.50 - 91.66
	High (> 83.16)	3	7.50	13	26.00	16			

b) Economic variables

(1) Annual Income : Table - 3 indicates that 26.66 percent of non-indigenous dairy farmers have high annual income (> Rs. 1.47 lakh), whereas none of the Indigenous dairy farmers fall in this income group. 12.50 percent of the Indigenous dairy farmers ~~fall~~ ^{belong} to the low income group but none of non-indigenous dairy farmers ~~fall~~ ^{belong} to this group. On the other hand a large majority of 87.50 percent of the Indigenous and 73.33 percent of the non-indigenous dairy farmers ~~fall~~ ^{belong} to the medium income group.

It can be concluded that the non-indigenous dairy farmers had higher annual income than that of the Indigenous dairy farmers.

(2) Herd size : Table - 3 indicates that 35 percent and 65 percent of the non-indigenous dairy farmers had large herd size (> 30 animals) and medium herd size (4 - 30 animals) respectively. No indigenous dairy farmers had a large herd size. It is interesting to note that a great majority of both the ethnic groups possessed medium herd size.

c) Psychological behaviour

(1) Attitude towards dairy farming : It can be observed that 22.5 percent and 21.66 percent of the ⁱIndigenous and the non-indigenous dairy farmers respectively had favourable attitude towards dairy farming, whereas 60 percent and 66.67 percent of the ⁱIndigenous and the non-indigenous dairy farmers respectively

had neutral and 17.50 percent and 11.66 percent of the ⁱIndigenous and non-indigenous dairy farmers respectively had unfavourable attitude towards dairy farming (Table - 3).

In both the ethnic groups, majority had neutral attitude, followed by favourable and unfavourable attitude towards dairy farming

(2) Adoption behaviour : It was found that 18.33 percent of the non-indigenous dairy farmers fall in the high adopter group, whereas only 7.50 percent of the indigenous dairy farmers fall in this category. 42.50 percent indigenous farmers were low adopter in comparison to only 10 percent of the non-indigenous dairy farmers falling in this category. But the majority, 50 percent and 71.67 percent of the ⁱIndigenous and the non-indigenous dairy farmers were medium adopters of improved animal husbandry practices.

It can be concluded that the ⁱIndigenous dairy farmers are low medium adopters, whereas, the non-indigenous dairy farmers are medium to high adopters.

d) Knowledge level : It was observed that against 21.67 percent of the non-indigenous respondents only 7.50 percent of the Indigenous respondents had a high knowledge level. It is interesting to find that where there were 32.50 percent of the ⁱIndigenous dairy farmers had low knowledge level, no farmers of the other group fall in that category. More than three fourth of

the non-indigenous respondents (78.33 percent) and 60 percent of the Indigenous respondents had medium knowledge level.

It can be concluded that the non-indigenous dairy farmers had higher knowledge in respect of Animal Husbandry practices than the Indigenous dairy farmers.

TABLE - 4 : PROFILE OF THE RESPONDENTS : ENTREPRENEURIAL BEHAVIOUR

GROUP	CATEGORY	FREQ	(%)	MEAN	S.D	RANGE
INDIGENOUS	Low (< 26.95)	3	7.50			
	Medium (26.95 to 46.79)	28	70.00	36.87	± 9.92	25.23 - 56.13
	High (> 46.79)	9	22.50			
NON-INDIGENOUS	Low (< 35.77)	9	15.00			
	Medium (35.77 to 53.07)	41	68.33	44.42	± 8.65	26.65 - 60.87
	High (> 53.07)	10	16.66			

TABLE - 5 : COMPARATIVE PROFILE OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS : ENTREPRENEURIAL BEHAVIOUR

CATEGORY	INDIGENOUS (N=40)		NON-INDIGENOUS (N=60)		TOTAL FREQ-CUM PERCENTAGE	MEAN	S.D	RANGE
	FREQ	(%)	FREQ	(%)				
Low (< 31.54)	14	35.00	6	10.00	20			25.00
Medium (31.54 to 51.26)	21	52.50	39	65.00	60	41.40	± 9.86	25.00 - 60.00
High (> 51.26)	5	12.50	15	25.00	20			

B) DEPENDENT VARIABLE

a) ENTREPRENEURIAL BEHAVIOUR : The Entrepreneurial behaviour index of the respondents were measured by considering the seven ~~entrepreneurial~~ traits. It was measured by Nandapurkar (1982) method and categorised accordingly with a slight modification.

(I) ENTREPRENEURIAL BEHAVIOUR OF THE INDIGENOUS RESPONDENTS :

Table - 4 indicates that 22.50 percent of the indigenous respondents had high ~~entrepreneurial~~ behaviour. 70 percent of the respondents had medium and 7.50 percent of the respondents had low ~~entrepreneurial~~ behaviour.

(II) ENTREPRENEURIAL BEHAVIOUR OF THE NON-INDIGENOUS RESPONDENTS

: Table - 4 reveals that a clear majority of 68.33 percent of the non-indigenous respondents had medium ~~entrepreneurial~~ behaviour. 16.66 percent of the respondents had high and 15 percent of respondents had low ~~entrepreneurial~~ behaviour.

(III) COMPARISON OF INDIGENOUS AND NON-INDIGENOUS RESPONDENTS IN RESPECT OF ENTREPRENEURIAL BEHAVIOUR :

From Table - 5, it is clear that 25 percent of the non-indigenous respondents against 12.50 percent of the ~~indigenous~~ respondents had high ~~entrepreneurial~~ behaviour. In the category of low entrepreneurial behaviour the indigenous group (35 percent) had an excess over the other group (10 percent). But so far as the case of majority is concerned, the respondents of both the group were found to have medium entrepreneurial behaviour.

It can be concluded that the non-indigenous dairy farmers had an edge over the ⁱIndigenous dairy farmers in respect of ^eEntrepreneurial behaviour.

2. DISTRIBUTION OF THE RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO VARIOUS INDEPENDENT VARIABLES

^{Under this sub head}
~~This sub head concentrates upon~~ the distribution of the various independent variables of the indigenous and non-indigenous respondents in relation to entrepreneurial behaviour ^{has been shown}. The established data for enumerating their relation have been arranged from table 6 to 19 as follows :--

(A) Independent variables

(a) Socio personal variables.

1. Age :

(i) Indigenous respondents : It is found in table - 6 that of the young age category ^{no one} had high entrepreneurial behaviour. Majority of them (85.72 percent) had medium level of entrepreneurial behaviour. Contrastingly, ^{no one} ~~none~~ of the old age category was found to have low entrepreneurial behaviour. 42.86 percent of the respondents of the old age category had high entrepreneurial behaviour, keenly followed by 57.14 percent of them having medium entrepreneurial behaviour. For the middle age category, though there were 23.08 percent having high entrepreneurial behaviour, more than two-third of them (69.20 percent) had medium entrepreneurial behaviour. It can be

said that the indigenous respondents belonging to middle and old age category had higher level of Entrepreneurial behaviour than those belonging to young age group.

TABLE (6) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO AGE.

Age	Entrepreneurial Behaviour			
category	Low	medium	High	Total
Young	1 (14.28)	6 (85.72)	0 (0.00)	7 (17.50)
Middle Age	2 (7.69)	18 (69.20)	6 (23.08)	26 (65.00)
Old	0 (0.00)	4 (57.14)	3 (42.86)	7 (17.50)

Figures in the parenthesis indicate Percentage.

TABLE (7) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO AGE.

Age	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Young	6 (50.00)	4 (33.33)	2 (16.67)	12 (20.00)
Middle Age	0 (0.00)	30 (85.71)	5 (14.29)	35 (58.33)
Old	3 (23.08)	8 (61.54)	2 (15.38)	13 (21.67)

Figures in the Parenthesis indicate Percentage.

(ii) Non-indigenous respondents : It is indicated in table - 7 that ~~the~~ half the number of the respondents (50.00 percent) of the young age category had low level of entrepreneurial behaviour, where as 85.71 percent and 61.54 percent respectively of the respondents of the middle and old age group had medium entrepreneurial behaviour.

Again, 16.67 percent, 15.38 percent and 14.29 percent respectively of the young, old and middle age group had high entrepreneurial behaviour, the young age group having a little edge over the other two categories.

But, a perusal of the distribution reveals that the middle age group were the fore runners, followed by the old farmers, the young farmers lagging behind in the entrepreneurial behaviour.

2. Educational level

(i) Indigenous respondents :

It is encouraging to find in the table - 8 that 38.10 percent of the respondents whose educational level was above HSLC had high entrepreneurial behaviour and 61.90 percent of them had medium entrepreneurial behaviour. But for the respondents who had an educational level upto HSLC, 60.00 percent and 30.00 percent had medium and low entrepreneurial behaviour respectively. Surprisingly, cent percent of the respondents who were either illiterate or could read and write only had medium entrepreneurial behaviour.

TABLE (8) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO EDUCATION.

Educational level	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Illiterate	0 (0.00)	3 (100.00)	0 (0.00)	3 (7.50)
Read and write	0 (0.00)	6 (100.00)	0 (0.00)	6 (15.00)
Upto HSLC	3 (30.00)	6 (60.00)	1 (10.00)	10 (25.00)
Above HSLC	0 (0.00)	13 (61.90)	8 (38.10)	21 (52.50)

Figures in the Parenthesis indicate Percentage.

TABLE (9) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO EDUCATION.

Educational level	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Illiterate	2 (18.18)	9 (81.82)	0 (0.00)	11 (18.33)
Read and write	2 (9.52)	17 (80.95)	2 (9.53)	21 (30.00)
Upto HSLC	5 (27.78)	8 (44.44)	5 (27.78)	18 (30.00)
Above HSLC	0 (0.00)	7 (70.00)	3 (30.00)	10 (16.67)

Figures in the parenthesis indicate Percentage.

(ii) Non-indigenous respondents :

The deduced figures for the entrepreneurial behaviour of the non-indigenous respondents from the table 9 exhibited that great majority of the respondents of the three categories, i.e. illiterate (81.82 percent), read and write (80.95 percent) and above HSLC (70.00 percent) had medium entrepreneurial behaviour. Amongst the respondents ^{was not} of upto HSLC category 27.78 percent, 44.44 percent and 27.78 percent had low, medium and high level of entrepreneurial behaviour respectively. No respondents of the illiterate category was found to have high entrepreneurial behaviour and no respondents of the above HSLC ^{found} category was found have low entrepreneurial behaviour. The above figures revealed that the educational level of non-indigenous respondents had mixed effect upon their entrepreneurial behaviour.

(b) Economic variables :(1) Annual incomei) Indigenous respondents :

It may be very clearly interpreted from the table - 10 that a vast majority (85.71 percent) of the respondents of the high annual income category had high level of entrepreneurial behaviour, whereas, 80.00 percent and 82.14 percent of the respondents belonging to low and medium annual income categories respectively had medium entrepreneurial behaviour. Only 10.72 percent of the respondents of medium annual income category had high entrepreneurial behaviour. It can thus be said that the respondents having high annual income had higher level of entrepreneurial behaviour.

TABLE (10) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ANNUAL INCOME.

Annual income	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	1 (20.00)	4 (80.00)	0 (0.00)	5 (12.50)
Medium	2 (7.14)	23 (82.14)	3 (10.72)	28 (70.00)
High	0 (0.00)	1 (14.29)	6 (85.71)	7 (17.5)

Figures in the Parenthesis indicate Percentage.

TABLE (11) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ANNUAL INCOME.

Annual income	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	3 (33.33)	6 (66.67)	0 (0.00)	9 (15.00)
Medium	5 (11.63)	34 (79.07)	4 (9.30)	43 (71.67)
High	0 (0.00)	2 (25.00)	6 (75.00)	8 (13.33)

Figures in the Parenthesis indicate Percentage.

(ii) Non-indigenous respondents :

The figures from the table - 11 revealed that as high as 75.00 percent of the respondents from the high annual income group had high level of entrepreneurial behaviour. In contrast, 79.07 percent and 66.67 percent of the respondents of the medium and low annual income respectively had medium entrepreneurial behaviour. Where no respondents of the high annual income group was found to have low entrepreneurial behaviour, one third (33.33) percent of the respondents of the low annual income group had low entrepreneurial behaviour. It can be indicated that in case of the non-indigenous dairy farmers, the entrepreneurial behaviour increases with the increase of annual income.

(2) Herd size

(i) Indigenous respondents :

It is seen in the table - 12 that amongst the respondents with small herd size category, no respondent had high entrepreneurial behaviour; where as 71.43 percent of the respondents having large herd size had high entrepreneurial behaviour. No one had low entrepreneurial behaviour. on the otherhand, 80.00 percent and 78.57 percent of the respondents having small and medium herd size respectively had medium entrepreneurial behaviour.

(ii) Non-indigenous respondents :

Examination of the entrepreneurial behaviour aspects, from the table - 13 revealed that 44.44 percent of the respondents of

TABLE (12) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO HERD SIZE.

Herd size	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Small	1 (20.00)	4 (80.00)	0 (0.00)	5 (12.50)
Medium	2 (7.14)	22 (78.57)	4 (14.29)	28 (70.00)
Large	0 (0.00)	2 (28.57)	5 (71.43)	7 (17.50)

Figures in the Parenthesis indicate Percentage.

TABLE (13) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO HERD SIZE.

Herd size	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Small	4 (44.44)	5 (55.56)	0 (0.00)	9 (15.00)
Medium	5 (13.89)	28 (77.78)	3 (8.33)	36 (60.00)
Large	0 (0.00)	8 (53.33)	7 (46.67)	15 (25.00)

Figures in the Parenthesis indicate Percentage.

small herd category had low and 46.67 percent of the respondents possessing large herd had high entrepreneurial behaviour.

Interestingly, irrespective of the herd size, majority of the respondents of all the three categories were found to have medium level of entrepreneurial behaviour. The respondents with large herd size had medium to high entrepreneurial behaviour, where as those with small herd size had low to medium entrepreneurial behaviour. It is there fore, understood that the rate of entrepreneurship increased with the increase in the herd size for the non-indigenous respondents.

3) Psychological variables

(1) Attitude towards dairy farming

(i) Indigenous respondents :

The figures in the table - 14 exhibited that the respondents having favourable attitude were equally distributed in medium and high entrepreneurial behaviour, 50 percent each. But there was no representation of respondents having unfavourable attitude for high entrepreneurial behaviour. Of this category, 85.71 percent were found to have medium entrepreneurial behaviour. Of those respondents having neutral attitude, 68.96 percent had medium entrepreneurial behaviour. Thus it may be interpreted that attitude of the indigenous farmers had positive impact upon the entrepreneurial behaviour.

TABLE (14) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ATTITUDE TOWARDS DAIRY FARMING.

Attitude towards farming	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Unfavourable	1 (14.29)	6 (85.71)	0 (0.00)	7 (17.50)
Neutral	2 (6.90)	20 (68.96)	7 (24.14)	29 (72.50)
Favourable	0 (0.00)	2 (50.00)	2 (50.00)	4 (10.00)

Figures in the Parenthesis indicate Percentage.

TABLE (15) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ATTITUDE TOWARDS DAIRY FARMING.

Attitude towards farming	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Unfavourable	2 (33.33)	4 (66.67)	0 (0.00)	6 (10.00)
Neutral	7 (17.07)	32 (78.05)	2 (4.88)	41 (68.33)
Favourable	0 (0.00)	5 (38.46)	8 (61.54)	13 (21.54)

Figures in the Parenthesis indicate Percentage.

(ii) Non-indigenous respondents :

A view on the level of entrepreneurship in the table - 15 revealed that a great majority of the respondents having favourable attitude, had high entrepreneurial behaviour. The majority amongst the neutral as well as unfavourable category (78.05 percent and 66.67 percent respectively) had medium entrepreneurial behaviour. Only 4.88 percent of the respondents from the neutral category had high entrepreneurial behaviour. Hence, an inference can be ^{drawn} ~~drawn~~ that attitude of the non-indigenous farmers had positive impact upon the entrepreneurial behaviour.

(2) Adoption behaviour(i) Indigenous respondents :

It is evident from the table - 16 that 100.00 percent of respondents with low level of adoption had medium entrepreneurial behaviour. Amongst the respondents with medium level of adoption exhibited that a majority 62.50 percent and 25.00 percent of them had medium and high entrepreneurial behaviour respectively. It can be further observed that not less than 60.00 percent of the respondents of high level of adoption category had high entrepreneurial behaviour; the rest 40.00 percent had medium entrepreneurial behaviour. It is therefore, understood that the rate of entrepreneurship increased with the increase of adoption behaviour of indigenous respondents.

TABLE (16) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ADOPTION BEHAVIOUR.

Adoption behaviour	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	0 (0.00)	11 (100.00)	0 (0.00)	11 (27.50)
Medium	3 (12.50)	15 (62.50)	6 (25.00)	24 (60.00)
High	0 (0.00)	2 (40.00)	3 (60.00)	5 (12.50)

Figures in the Parenthesis indicate Percentage.

TABLE (17) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO ADOPTION BEHAVIOUR.

Adoption behaviour	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	1 (16.67)	5 (83.33)	0 (0.00)	6 (10.00)
Medium	8 (18.60)	32 (74.42)	3 (6.98)	43 (71.67)
High	0 (0.00)	4 (36.36)	7 (63.64)	11 (18.33)

Figures in the Parenthesis indicate Percentage.

(ii) Non-indigenous respondents :

It can be seen from table - 17 that 63.64 percent and 36.36 percent of the respondents of high adoption behaviour had high and medium entrepreneurial behaviour. Although 6.98 percent of the respondents of medium adoption behaviour showed high entrepreneurial behaviour, 74.42 percent of the said category showed medium entrepreneurial behaviour. Then again, a large majority (83.33 percent) of the respondents of low adoption behaviour also showed medium entrepreneurial behaviour. Thus, it may be interpreted that adoption behaviour of the non-indigenous respondents had positive impact upon the entrepreneurial level of the respondents.

(d) Knowledge(i) Indigenous respondents :

The table - 18 depicts that three forth majority i.e. 75.00 percent of the respondents with high level of knowledge had high level of entrepreneurial behaviour, only 25 percent having medium entrepreneurial behaviour from the same category. In the medium knowledge level category, 4.00 percent had medium level of entrepreneurial behaviour where amongst the respondents of low knowledge level category, a clean majority i.e. 71.43 percent had medium level of entrepreneurial behaviour. Hence, an inference can be drawn that the knowledge level of the indigenous respondents had a positive effect on entrepreneurial behaviour.

TABLE (18) DISTRIBUTION OF THE INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO KNOWLEDGE LEVEL.

Knowledge level	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	2 (28.57)	5 (71.43)	0 (0.00)	7 (17.50)
Medium	1 (4.00)	21 (84.00)	3 (12.00)	25 (62.50)
High	0 (0.00)	2 (25.00)	6 (75.00)	8 (20.00)

Figures in the Parenthesis indicate Percentage.

TABLE (19) DISTRIBUTION OF THE NON-INDIGENOUS RESPONDENTS ON ENTREPRENEURIAL BEHAVIOUR IN RELATION TO KNOWLEDGE LEVEL.

Knowledge level	Entrepreneurial Behaviour			
Category	Low	Medium	High	Total
Low	0 (0.00)	9 (100.00)	0 (0.00)	9 (15.00)
Medium	9 (21.95)	30 (73.17)	2 (4.88)	41 (68.33)
High	0 (0.00)	2 (20.00)	8 (80.00)	10 (16.67)

Figures in the Parenthesis indicate Percentage.

(ii) Non-indigenous respondents :

It is interesting to note from table - 19 that 100.00 percent of respondents with low level of knowledge ^{had} possessed medium entrepreneurial behaviour. The respondents with medium level of knowledge exhibited that a majority i.e. 73.17 percent of them had medium level of entrepreneurial behaviour, 4.88 percent showed high level of entrepreneurship. On the other hand, 80.00 percent of respondents with high level of knowledge had high level of entrepreneurial behaviour. It can, therefore, be said that the knowledge level of the non-indigenous respondents had a positive impact upon the entrepreneurial behaviour.

3. RELATIONAL ANALYSIS BETWEEN INDEPENDENT AND DEPENDENT VARIABLES :

The sole purpose of ^{The materials under this} ~~this~~ sub head was to determine the extent of relationship existing between independent and dependent variables. Accordingly, an attempt was made to establish the relationship between Socio-personal, Economic, Psychological variables and knowledge level, which constituted the independent variables, with the ^{e/} ~~Entrepreneurial~~ behaviour of both indigenous and non-indigenous respondents. The results are presented below :

Relational analysis of the Socio-personal, Economic, Psychological variables and knowledge level with Entrepreneurial behaviour of the respondents of the two groups :

The co-efficient of correlation formula was employed to establish the relationship of each of the independent variables

with the ^e/~~E~~ntrepreneurial behaviour of the two groups of respondents. The findings are presented in the Table-20, for the indigenous respondents and in the Table-21, for the non-indigenous respondents.

In the above said Tables correlation matrix was performed to establish the relationship between all variables of the two groups.

The figures in Table 20 of indigenous respondents indicated that out of the seven independent variables there were as many as six variables viz. ^eE~~ducation~~, ^aA~~nnual~~ income, ^hH~~erd~~ size, ^aA~~ttitudes~~ towards dairy farming, ^aA~~do~~ption behaviour and Knowledge level - which showed positive and highly significant association with the ^e/~~E~~ntrepreneurial behaviour at 1 percent level of Probability. The age of the respondents showed significant association at 5 percent level of probability with the ^e/~~E~~ntrepreneurial behaviour. An inference can, thus, be drawn that irrespective of their age, the indigenous dairy farmers with higher education, good knowledge, solvent background, comparatively larger herd size, high attitude and high adoption towards dairy farming are better entrepreneurs. Hence it can obviously said that in dairy entrepreneurship the middle and upper middle class people are found more inclined to.

In case of non-indigenous respondents the figures in Table 21 indicated that out of the seven independent variables there were as many as five variables viz. Age, Annual income, Herd size, Adoption behaviour and knowledge level showed positive and

TABLE - 20. ZERO ORDER INTER CORRELATION MATRIX OF INDIGENOUS DAIRY FARMERS.

SL. NO.	VARIABLES	AGE	EDUCATION	ANNUAL INCOME	HERD SIZE	ATTITUDE	ADOPTION BEHAVIOUR	KNOWLEDGE	ENTREPRENEURIAL BEHAV.
1.	AGE	-							
2.	EDUCATION	.010	-						
3.	ANNUAL INCOME		**	-					
		.151	.642						
4.	HERD SIZE	.098	.518	.798	-				
5.	ATTITUDE	.152	.336	.419	.431	-			
6.	ADOPTION BEHAVIOUR	.228	.217	.459	.375	.742	-		
7.	KNOWLEDGE	.072	.423	.587	.578	.747	.730	-	
8.	ENTREPRENEURIAL BEHAVIOUR	.327	.506	.743	.520	.613	.771	.700	-

** - Significant at 0.01 level of probability.

* - Significant at 0.05 level of probability.

TABLE - 21. ZERO ORDER INTER CORRELATION MATRIX OF NON-INDIGENOUS DAIRY FARMERS.

SL.NO.	VARIABLES	AGE	EDUCATION	ANNUAL INCOME	HERD SIZE	ATTITUDE	ADOPTION BEHAVIOUR	KNOWLEDGE	ENTREPRENE- RIAL BEHAV.
1.	AGE	-							
		**							
2.	EDUCATION	-.457	-						
3.	ANNUAL INCOME	.127	.368	-					
			*						
4.	HERD SIZE	.167	.205	.972	-				
				**					
5.	ATTITUDE	-.194	.500	.399	.380	-			
			**	**	**				
6.	ADOPTION BEHAVIOUR	-.074	.374	.674	.619	.376	-		
			**	**	**	**			
7.	KNOWLEDGE	-.009	.021	.520	.480	.461	.622	-	
				**	**	**	**		
8.	ENTREPRENE- RIAL BEHAVIOUR	.371	.008	.589	.596	.296	.538	.590	-
		**		**	**		**	**	

** - Significant at 0.01 level of probability.

* - Significant at 0.05 level of probability.

highly significant association at 1 percent level of probability. The attitude towards dairy farming of the respondents showed significant association at 5 percent level and educational level had no significant association with entrepreneurial behaviour.

Since the educational level was not found to have significant relationship with Entrepreneurial behaviour of the non-indigenous dairy farmers, it can be said that the dairy ^{e/}Entrepreneurship of the non-indigenous dairy farmers are dictated by their ancestral occupation, the dairying. Higher their knowledge, adoption behaviour, annual income and herd size, higher are their inclination towards dairy ^{e/}Entrepreneurship.

It is also seen from both the ethnic groups, that the annual income, herd size, knowledge and adoption had highly significant relationship with ^{e/}Entrepreneurial behaviour. This definitely says that poorer dairy farmers lack in Entrepreneurial behaviour. There ^{e/}fore, it is suggested that development organisation should come forward with more schemes having economic assistance for the poorer section, and extension agencies should take concerted efforts to infuse more knowledge to the poorer sections so that they adopt the practices much more than before.

4. DIFFERENTIAL STUDY BETWEEN THE INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS.

Following variables were differentiated between the indigenous and non-indigenous dairy farmers :

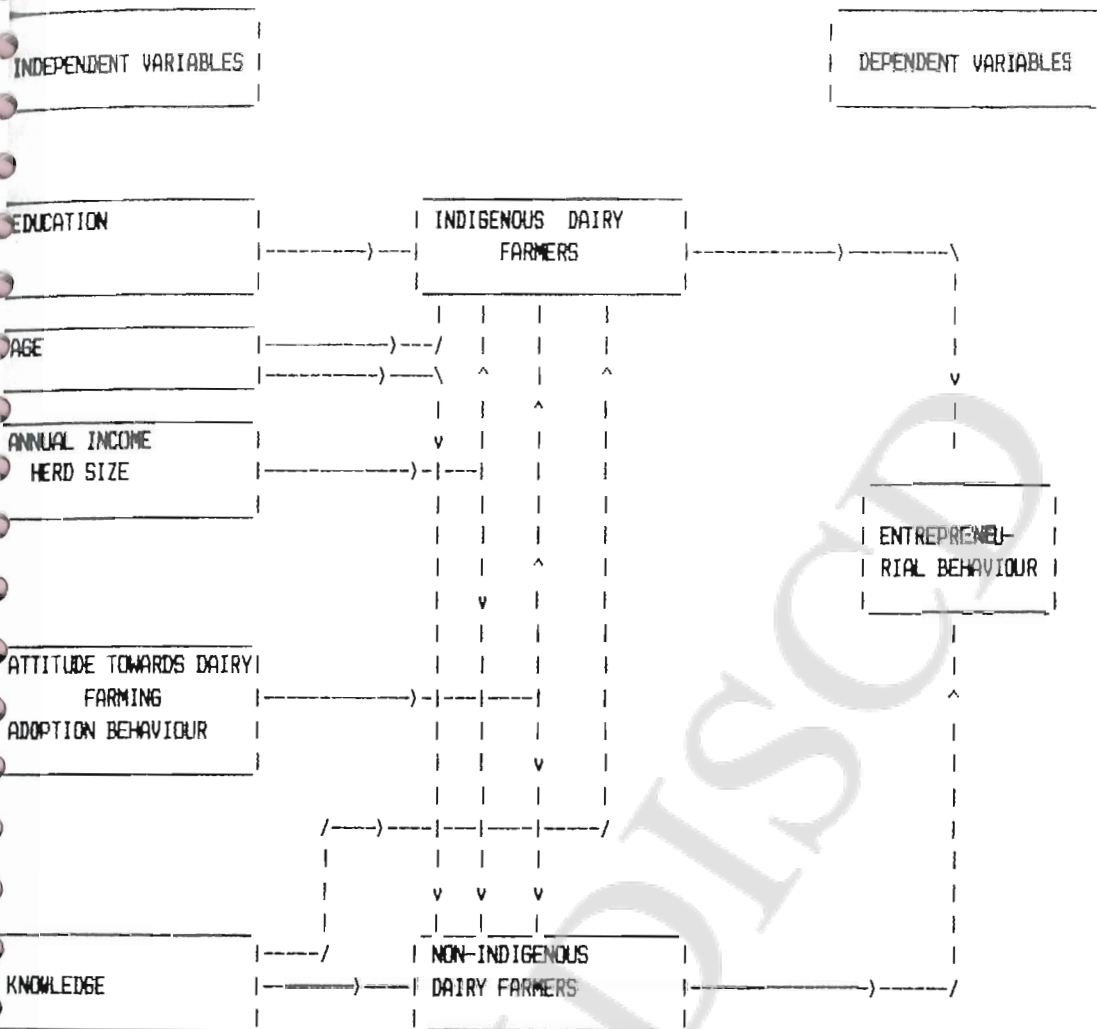


FIGURE - 5 - EMPIRICAL MODEL OF ENTREPRENEURIAL BEHAVIOUR (Influencing pattern)

1. Attitude towards dairy farming.
2. Adoption behaviour of improved practices.
3. Knowledge of improved dairy husbandry practices.
4. Entrepreneurial behaviour.

The differences between indigenous and non-indigenous dairy farmers were evaluated by the help of "t" test. The Table-22 given below indicates the "t" values of different variables.

TABLE-22 : DIFFERENCE BETWEEN INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS ("t" VALUE) IN RESPECT OF CERTAIN VARIABLES.

Sl.No.	Area of Study	"t" value
1.	Attitude towards dairy farming	0.009 (NS)
2.	Adoption behaviour	3.92
3.	Knowledge	2.74
4.	Entrepreneurial behaviour	4.03

** significant at 0.01 level of probability

NS : Not significant.

1. DIFFERENCE IN ATTITUDE ABOUT IMPROVED PRACTICES BETWEEN THE INDIGENOUS AND THE NON-INDIGENOUS DAIRY FARMERS

The non-significant "t" value (0.009, $P < 0.05$) indicates that there was hardly any difference ^{amongst the} indigenous and non-indigenous dairy farmers. Most farmers of both the ethnic groups ^{had} possessed neutral attitude, the non-indigenous having a slight edge over the other group so far as the frequencies of the favourable attitude are concerned.

This may be due to the reason that keeping cows are mostly considered as a customary system by both the groups.

2. DIFFERENCE IN ADOPTION BEHAVIOUR ON IMPROVED DAIRY PRACTICES BETWEEN THE INDIGENOUS AND THE NON-INDIGENOUS DAIRY FARMERS.

The highly significant "t" value (3.92, $P > 0.01$) indicates a notable difference in adoption behaviour on improved dairy practices between the indigenous and non-indigenous dairy farmers.

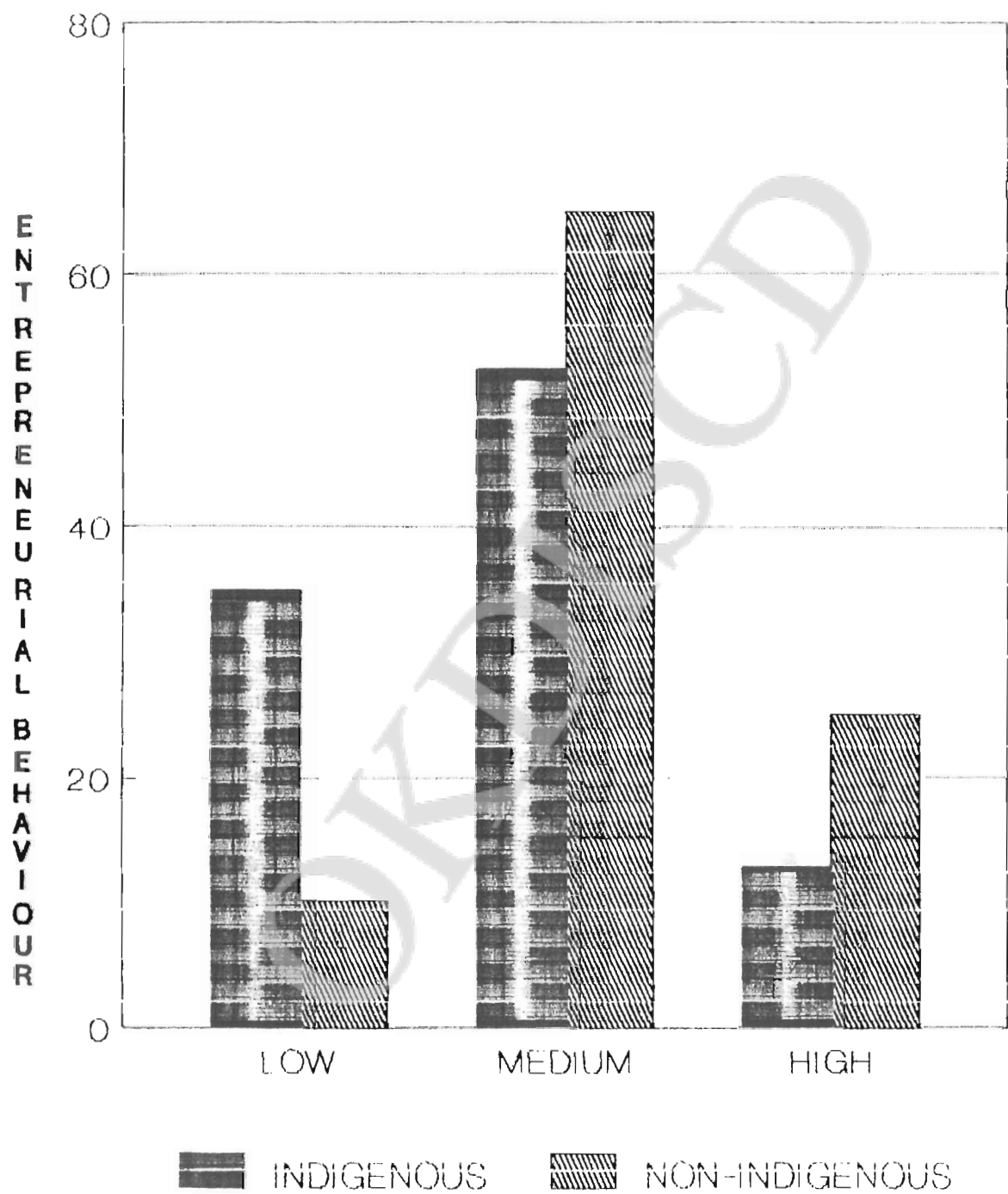
The reason that non-indigenous dairy farmers are better adopters than their counterpart, may be attributed to the fact that the indigenous farmers have, various occupational scopes, they are more inclined to acquire a salaried job, or to go for other business that need less engagement or earn more than ~~that~~ dairy ^{farm}. So, even though they are considered dairy farmers by others, they do not pay much attention to their farms. Hence their adoption behaviour does not change to higher side.

On the other hand, scopes of getting salaried jobs are fewer for the non-indigenous farmers. Almost all of them are born in a ^{farming} dairy family. Since their sole occupation is dairying, they know that higher they adopt the improved policies, higher they gain through their ancestral occupation.

3. DIFFERENCE IN KNOWLEDGE LEVEL OF IMPROVED DAIRY HUSBANDRY PRACTICES BETWEEN THE INDIGENOUS AND THE NON-INDIGENOUS DAIRY FARMERS.

The highly significant "t" value (2.74, $P > 0.01$) indicates

Figure - 4 Differential Entrepreneurial Behaviour
between Indigenous & Non-Indigenous
Dairy farmers



that there was a marked difference of knowledge level about improved dairy practices between the indigenous and non-indigenous farmers being on the higher side.

This may be due to the fact that since dairy farming being the primary as well as ancestral, they are more equipped with knowledge about improved dairy practices. The case is not similar with the indigenous dairy farmers; for most of them, it is a subsidiary occupation, and as such, they show less devotion to it and care less to gain knowledge about improved dairy practices.

4. DIFFERENCE IN ENTREPRENEURIAL BEHAVIOUR ON DAIRY FARMING BETWEEN THE INDIGENOUS AND THE NON-INDIGENOUS FARMERS.

The highly significant "t" value (4.03, $P > 0.01$) indicates that there is marked difference in entrepreneurial behaviour on dairy farming between the indigenous and the non-indigenous dairy farmers.

Over and above the higher knowledge and adoption behaviour, the higher range of herd size and annual income of the non-indigenous dairy farmers play the role of a combined directive force to push them to become better entrepreneurs than the indigenous ones, the salient reasons being already explained above. And, born in a dairying community, ^{they would} hardly ~~able to~~ jump out ^{and as such} of the ancestral track, their tradition, they ventures entrepreneurship ^{to} a higher degree.

CHAPTER - V

CHAPTER - V

SUMMARY AND CONCLUSION

In this chapter an attempt has been made to present a terse summary including salient findings of the study along with implications drawn there upon. A few suggestions for future research have also been incorporated at the end.

SUMMARY

In India, ^d Dairy farming, an age-old avocation, till four decades ago, was characterised by total absence of commercialisation. Key Village Scheme was the first major dairy development programme initiated by the Government of India during the 1950's. Next was the Intensive cattle Development Project, in 1968. A major programme "Operation Flood" was initiated in July, 1970. The primary objective of "Operation Flood" was to co-operativise the dairy industry using the "Anand Pattern" of dairy co-operatives as model. Though all these schemes had an all India coverage, the development of the dairy sector in all the regions did not occur at the same pace. Some regions like Gujarat, Punjab, Haryana ^{made} ^{progress} progressed more while the North-Eastern region lagged far behind. In Assam, Operation Flood (phase II) came into being with the establishment of west Assam Milk Producers' Co-operative Union Limited (WAMUL) in 1980, with its head quarters at Guwahati. Though there is an increased demand of milk and milk products in this state, yet, the per capita availability of milk is only 79 gm/day only.

It is observed in Assam that the non-indigenous i.e., Nepalese appears to be more successful in dairy farming than the native Assamese. This difference between the two ethnic group may be due to their differential entrepreneurial make-up. So to study the whole phenomena a comparative study of the ^eEntrepreneurial behaviour of the indigenous and non-indigenous dairy farmers of Assam was conducted. The main importance of the study was to determine the ^eEntrepreneurial behaviour of indigenous and non-indigenous dairy farmers of Assam, so that on the basis of the findings of the study, an action programme can be designed to increase the success rate of ⁱIndigenous dairy farmers. Assam is basically an agrarian state and her salvation obviously lies if the members of the farming community become more and more effective and efficient entrepreneurs.

The objectives of the present study were -

- (1) To find out the socio-personal, economic and psychological traits of the indigenous and non-indigenous dairy farmers of Assam.
- (2) To measure the ^eEntrepreneurial behaviour of the two groups of respondents.
- (3) To find out the difference in the ^eEntrepreneurial behaviour of indigenous and non-indigenous dairy farmers.
- (4) To find out the association between the socio-personal, economic and psychological characteristics of the two groups of respondents with their ^eEntrepreneurial behaviour.

The study was conducted on the members of primary Milk Producers' Co-operative Societies of WAMUL. The stratified random sampling technique was used to draw the sample of respondents for this study. In the first stage ten Primary Milk Co-operative Societies were selected out of 32 functional Milk Co-operative Societies. Ten primary members of both indigenous and non-indigenous from each of the ten selected Primary Milk Co-operative Societies were then selected by proportional allocation method of stratified random sampling making the total sample size to one hundred. There was forty indigenous and sixty non-indigenous respondents.

Based on extensive review of literature and after discussion with experts ⁱⁿ of this field, two sets of variables viz, Independent and Dependent variables, were considered appropriate for this investigation. Two socio-personal, two economic, two psychological variables and knowledge constituted the independent variables. The ^eEntrepreneurial behaviour of the dairy farmers was the dependent variable.

The categorization of the respondents was done by Mean $\pm$ S.D., Frequency distribution was done to study the general profile of independent and dependent variables. The investigated seven entrepreneurial traits were measured by the Entrepreneurial behaviour scale developed by Nandapurkar (1982). From the scores of the seven entrepreneurial traits, the Entrepreneurial behaviour indices of each of the respondents were calculated as per the formula outlined in the Research Methodology chapter. The

total Entrepreneurial behaviour index of each respondent was calculated by average. The correlation between independent and dependent variables were measured by Pearson's product moment correlation co-efficient (r), and the differential behaviour between indigenous and non-indigenous respondents in respect of attitude, adoption behaviour, knowledge and entrepreneurship were measured by "t" test.

SALIENT FINDINGS

(1) Majority of the indigenous dairy farmers (67.50 percent) and non-indigenous dairy farmers (51.66 percent) were of the age group of 33 to 51 years.

(2) Majority of the indigenous dairy farmers had higher educational level than the non-indigenous dairy farmers.

(3) The non-indigenous dairy farmers had higher annual income than that of the indigenous dairy farmers.

(4) The majority of the non-indigenous dairy farmers had larger herd size (11 to 35) than the indigenous dairy farmers (3 to 12).

(5) In both the ethnic groups, majority had neutral attitude toward dairy farming.

(6) The indigenous dairy farmers were low medium adopters, whereas, the non-indigenous dairy farmers were medium to high adopters of improved Animal Husbandry Practices.

(7) The knowledge level of non-indigenous dairy farmers was higher in respect of Animal Husbandry Practices than the ⁱIndigenous dairy farmers.

(8) The ^eEntrepreneurial behaviour the non-indigenous dairy farmers had an edge over that of the indigenous dairy farmers. 25 percent of the non-indigenous respondents against 12.50 percent of the ⁱIndigenous respondents had high Entrepreneurial behaviour. In the category of low ^eEntrepreneurial behaviour the indigenous group (35 percent) had an excess over the non-indigenous group (10 percent). But so far as the case of the majority is concerned, the respondents of both groups were found to have medium ^eEntrepreneurial behaviour.

(9) Education, ^aAnnual income, ^hHerd size, ^aAttitude towards dairy farming, ^aAdoption ^bBehaviour and ^kKnowledge level of the ⁱIndigenous respondents showed positive and highly significant association with the ^eEntrepreneurial behaviour at 1 percent level of probability. Age had also a positive significant association at 5 percent level of probability.

In case of the Non-indigenous respondents ^aAge, ^aAnnual income, ^hHerd size, ^aAdoption behaviour, ^kKnowledge had highly significant association and attitude towards dairy farming had significant association at 5 percent level of probability with the ^eEntrepreneurial behaviour.

(10) There was a marked difference between ⁱIndigenous and non-indigenous dairy farmers in respect of Adoption behaviour,

^k Knowledge and ^e Entrepreneurial behaviour. There was hardly any difference in respect of attitude towards dairy farming between the two groups.

(11) It was observed that the Repeat breeding problem, one of the major inhibitory factor of the dairy farming in the study area.

(12) The ^a Artificial ⁱ Insemination facility was not obtained by the dairy farmers as per their requirement.

(13) The dairy farmers were seen to be not interested to sell milk to the WAMUL due to low price.

(14) There was a major complaint about the quality of the concentrate feed supplied by WAMUL and other agencies in the study area.

(15) Scientific feeding schedules were not followed by the dairy farmers in the study.

(16) Improved fodder cultivation and preservation for the lean period were not satisfactory in the study area.

IMPLICATIONS AND RECOMMENDATIONS

Concerted efforts are to be taken by the planners, Government and other development agencies, extension workers and also the West Assam Milk Producers' Union Limited to -

(1) Provide adequate softwares to change the attitude of the farmers toward favourable notion.

(2) Find out the chief barriers standing on the way of higher adoption of Improved Dairy Practices by the Indigenous farmers.

(3) Make proper use of every popular communication media to increase the knowledge level of the Indigenous farmers.

(4) Ensure fruitful assistance to motivate the Indigenous farmers to take-up entrepreneurship in Dairying.

(5) The concerned departments and scientists should find out the solution of the problem of Repeat breeding.

(6) The concerned department should remodel the planning and service so that artificial insemination is provided as per requirement of the farmers.

(7) WAMUL should see that the ^{milk} Milk Producers are paid reasonable prices for their produce.

(8) Government should establish quality control cell sans corruption so that the farmers are ensured of the best quality concentrates at the most reasonable price.

(9) Planners and executors should pay serious attention on to why the scientific feeding schedule as formulated by researchers are rejected by most of the dairy farmers.

(10) The entire Dairy Development Programmes should be revamped, shred of false prejudices for the true development of the Dairying sector of Assam to get milk production to the recommended level.

(11) It will be beneficial for the human population if a general milk quality evaluation can be performed in the greater Guwahati.

SUGGESTED AREAS FOR FURTHER STUDY

1. Economics of ^mMilk ^pProduction.
2. Attitude of milk producers towards co-operatives ⁱⁿ Assam.
3. Training needs of dairy farmers.
4. Study of motivational pattern of the ⁱIndigenous dairy farmers.
5. Performance appraisal of west Assam Milk Producers' Co-operative Union Limited.
6. A study of the problems associated with farm entrepreneurship, and their remedies.
7. Nutritional problems encountered in ^dDairy ^aAnimals of Assam, their effect on production and possible remedies.

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APPENDIX

APPENDIX - AA STUDY ON THE DIFFERENTIAL ENTREPRENEURIAL BEHAVIOUR OF THE
INDIGENOUS AND NON-INDIGENOUS DAIRY FARMERS OF ASSAM

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1. Name of the Dairy Milk Co-operative -----
2. Village -----
3. Date of Interview -----

PART - A(A) SOCIO - PERSONAL VARIABLE

1. Name of the respondent : -----
2. Community : (a) Indigenous (-----)
(b) Non-Indigenous (-----)
3. Age : -----
4. Educational Level : -----

S1.No	Educational Level	Score
i)	Illiterate	0
ii)	Can read and write	1
iii)	Upto H.S.L.C.	2
iv)	Above H.S.L.C.	3

5. Caste : -----
6. Size of the family : -----

PART - B
ECONOMIC VARIABLES

1. Family occupation :

(a) Main -----

(b) Subsidiary -----

2. Break up of family income :

(a) Cultivation ----- b) Livestock -----

(c) Service ----- d) Tenancy -----

(e) Business ----- f) Any other -----

3. Annual income of family (approx) :-----

4. Land holding/ Farm size
(in bighas)

Cultivable Non-cultivable Total

5. Herd size :

Type of animal Cow Heifer Calves Total

Indigenous -----

Crossbred -----

6. Milk production particulars :
(previous day)

Local Crossbred

Production (lits.) -----

7. Milk disposal particulars :

(i) Home consumption

(ii) Direct sale in the market

(iii) Middle man

(iv) Co-operatives

(v) Vendors

PART - C

PSYCHOLOGICAL VARIABLE1. ATTITUDE TOWARDS DAIRY FARMING

(Max. scr. 24)

Sl.No	Statement	Agree	Undecided	Disagree
1.	In dairy farming, A.I. is a good breeding practice.	3	2	1
2.	In dairy farming, animal in the dry period can be neglected in matters of their feed.	1	2	3
3.	Through scientific, feeding, milk production of dairy animals can be increased.	3	2	1
4.	Vaccination against contagious diseases (R.P. & H.S.) in animal is not regularly needed.	1	2	3
5.	In dairy farming, drenching crossbred animal for stomach worms every year is a good practice.	3	2	1
6.	In dairy farming, it is good to keep the dairy animals loose in an enclosure.	3	2	1
7.	Milch animals donot necessarily need green fodder for their production.	1	2	3
8.	In dairy farming, crossbred cows are not better than buffaloes.	1	2	3

2. ADOPTION BEHAVIOUR

(Max. Scr. 33)

(A) AREA OF BREEDING :Score

a) Do you adopt improved breeding practices ?

- | | |
|-----|---|
| Yes | 1 |
| No | 0 |

If yes, what are the breeding practices do you generally follow?

- | | |
|-------------------------------------|---|
| i) A.I. | 2 |
| ii) Both (A.I. and natural service) | 1 |
| iii) Natural service | 0 |

b) Do you observe heat cycle in your cow ?

- | | |
|-----|---|
| Yes | 1 |
| No | 0 |

c) If your animals comes to heat when do you inseminate the cow ?

- | | |
|--------------------------|---|
| i) Immediately 1-2 hours | 0 |
| ii) Within 12-18 hours | 1 |
| iii) After 18 hours | 0 |
| iv) I donot know | 0 |

d) Do you practice pregnancy diagnosis in your cow ?

- | | |
|--------------------|---|
| i) Yes, always | 2 |
| ii) Yes, sometimes | 1 |
| iii) Never | 0 |

e) When do you get your animal inseminated after calving ?

- | | |
|----------------------------|---|
| i) Within 60-90 days | 1 |
| ii) Within 90-120 days | 0 |
| iii) When it comes to heat | 0 |
| iv) I donot know | 0 |

- f) Please mention the reasons of adoption and non-adoption of the improved breeding practices.

Reasons for adoption	Reasons for non-adoption
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)

(B) AREA OF MANAGEMENT :

Score

- a) Are you providing special ration to advanced pregnant cow ?

Yes	1
No	0

- b) Do you allow your new born calf to suckle its mother ?

i) Within 1 hour of birth	1
ii) Within 1-2 hours of birth	0
iii) Wait till placenta is released	0

- c) Do you practice deworming of calves ?

i) Yes, regularly in all the months	2
ii) Yes, sometimes	1
iii) No, never	0

- d) Do you provide clean water to your animals ?

i) Yes, always	2
ii) Yes, but sometimes	1
iii) No, never	0

e) Do you wash your utensils before milking ?

Yes	1
No	0

If yes, mention the following :

i) Wash with hot water and detergent	4
ii) Wash only with detergent	3
iii) Wash with locally available detergent	2
iv) With water only	1

f) What type of animal house do you have ?

i) Pacca	3
ii) Semi-pacca	2
iii) Katcha	1

g) Please mention reasons for adoption and non-adoption of improve managerial practice.

Reasons for adoption	Reasons for non-adoption
1)	1)
2)	2)
3)	3)
4)	4)
5)	5)

(C) AREA OF DISEASE CONTROL :

Score

a) Do you get your animals vaccinated against contagious and infectious diseases ?

i) Yes, for all animals	2
ii) Yes, for some animals	1
iii) No, never	0

b) Do you provide first-aid treatment to your animals ?

Yes	1
No	0

c) When your animal suffers from disease, who do you call for treatment ?

- | | |
|-----------------------|---|
| i) Neighbour | 0 |
| ii) Village leader | 0 |
| iii) Stockman/VFA | 1 |
| iv) V.A.S./Specialist | 2 |
| v) Nobody | 0 |

d) Do you practice tick control measures in your dairy farm ?

- | | |
|------------------------|---|
| i) Yes, always | 2 |
| ii) Yes, but sometimes | 1 |
| iii) No, never | 0 |

e) Please mention the reasons for adoption and non-adoption of the disease control measures.

Reasons for adoption	Reasons for non-adoption
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

(D) AREA OF FEEDING

a) Do you cultivate the improved variety of fodder crops.

- | | |
|--------|---|
| i) Yes | 1 |
| ii) No | 0 |

b) Are you providing ammoniated paddy straw to your animals.

- | | |
|--------|---|
| i) Yes | 1 |
| ii) No | 0 |

c) Do you adopt the method of storing forage for lean season.

- | | |
|--------|---|
| i) Yes | 1 |
| ii) No | 0 |

d) Do you follow the scientific feeding requirements to your animals.

- | | |
|--------|---|
| i) Yes | 1 |
| ii) No | 0 |

PART - D

KNOWLEDGE TEST

AREA OF BREEDING

(Max. scr : 24)

a) What are the symptoms of a cow in heat ?

- | | |
|------|--------------|
| i) | |
| ii) | Score 1 each |
| iii) | |

b) When a cow in heat is to be inseminated ?

- | | |
|--------------------------------------|---|
| i) Immediately after heat | 0 |
| ii) Between 12 - 18 hours | 1 |
| iii) After 18 hours of onset of heat | 0 |

c) Please state after how many days a cow repeats its heat cycle.

- | | |
|--------------------|---|
| i) 14 days | 0 |
| ii) After 21 days | 1 |
| iii) After 30 days | 0 |

d) When should your animal be inseminated after calving ?

- | | |
|------------------------|---|
| i) Within 60 - 90 days | 1 |
| ii) When comes to heat | 0 |
| iii) Do not know | 0 |

AREA OF FEEDING

a) What is balance feeding ? (If correct) 1

b) What are the improved fodder crops grown in your area ?

- | | |
|------------|----------------------------|
| i) ----- | Score 1 for each
fodder |
| ii) ----- | |
| iii) ----- | |

c) At what stage maize is to be cut for fodder purpose ?

- | | |
|---------------------------|---|
| i) Before flowering stage | 1 |
| ii) After flowering stage | 0 |
| iii) Do not know | 0 |

d) Why special ration should be provided to advance pregnant animal ?

- | | |
|--|---|
| i) It helps in delivering the calf easily | 0 |
| ii) The animal needs extra energy in nurshing the calf | 1 |
| iii) I donot know | 0 |
| iv) It maintains the health | 0 |

AREA OF MANAGEMENT

a) Weaning is a good practice.

- | | |
|-----|---|
| Yes | 1 |
| No | 0 |

b) Which is the correct method of milking ?

i) Full hand milking 1

ii) Knuckling method of milking 0

c) What stage of pregnancy one should stop milking a cow ?

i) One month before calving 0

ii) Two months before calving 1

iii) Whenever it stops giving milk 0

d) Whom do you approach when your cow suffers from dystokia ?

i) Veterinary Doctor 2

ii) Stockman 1

iii) Village leader/quack 0

iv) friends/Neighbour 0

AREA OF CONTROL

a) Name some of the infectious and contagious diseases of cattle.

- i) _____ (Score one for each disease)
ii) _____
iii) _____

b) Why an animal is to be vaccinated ?

- i) Prevent from infectious and contagious diseases 1
ii) To maintain milk yield 0
iii) To keep animal always healthy 0

c) Do you know, against which diseases animal are generally vaccinated ?

(One score for each name)

- i) _____
ii) _____
iii) _____

PART - E

ENTREPRENEURIAL BEHAVIOUR

(Max. Scr : 16, SV : 7.93)

(I) INNOVATIVENESS :

i) Do you believe in trying out new ideas/innovation ?

(Scoring : (a)=3; (b)=2; (c)=1; (d)=0).

() (a) Yes, I am always eager to try out new ideas and find its merits and demerits myself.

() (b) Yes, I adopt new ideas only after weighing its advantage and disadvantages first.

() (c) Yes, I adopt new ideas only after its usefulness is proved in others enterprises.

() (d) There is no need to adopt new ideas if the traditional technology has prove its effectiveness.

ii) Which source do you seek/expect to provide you new ideas ? (Scoring : (a)=3; (b)=2; (c)=1; (d)=0).

() (a) Self

() (b) Experts

() (c) Fellow entrepreneurs

() (d) Well wishers who are not technical experts.

iii) Can you recall any idea or ideas which you were the first to try out in your enterprise in your locality ?

(Scoring : (a)=0; (b)=5; (c)=10).

() (a) No, not any

() (b) Yes, only one idea, viz. _ _ _ _ _

() (c) Yes, more than one idea viz. (i) _ _ _ _ _
(ii) _ _ _ _ _ (iii) _ _ _ _ _

(II) DECISION MAKING : (Max. scr - 10 for Indigenous, 5 for Non-indigenous respondents, sv 6.99)

In your enterprise you have to make many decisions. Please tell me the way you made the decisions in respect of the following. (Scoring : Not considered = 0, Considered after consultation = 1, Considered independently = 2) :

Sl. No.	Areas of decision making	Non-consider	Con. after consult	Cons. indepnly
1.	Whether or not to start any enterprise			
2.	Which enterprise to start			
3.	To start dairy enterprise			
4.	To seek Bank loan			
5.	Choose initial vol. of business			
6.	To buy the type of equipment			
7.	Hire workers			
8.	Try new ideas			
9.	To increase/decrease volume of business			
10.	To switch over to new enterprise			

Note - Sl-no 1 - 10, for Indigenous respondents
Sl-no 6 - 10, for Non-indigenous respondents

iii) INFORMATION SEEKING BEHAVIOUR : (Max. scr-30, sv:5.71)

A number of information sources are listed below. Please indicate whom do you contact and how frequently for getting information pertaining to your enterprise (Scoring : Never = 0, Occasionally = 1, Frequently = 2).

Sl. No.	Information sources	Frequently	Occasionally	Never
1.	Neighbours/Friends/Relatives			
2.	Fellow Entrepreneurs			
3.	Panchayat/Gaon Unnayan Samity			
4.	News papers			
5.	Radio			
6.	Television			
7.	Sales representatives			
8.	V.F.As.			
9.	Technical leaflets/bulletins			
10.	Exhibitions & Demonstrations			
11.	Local Veterinary Doctors			
12.	Specialists at C.V. Sc., Khanapara			
13.	B.D.Os.			
14.	Local treatment camps			
15.	Training programmes			

iv) RISK TAKING ORIENTATION : (Max. scr : 42, sv = 5.01)

Following are some of the statements related to the risks associated with any enterprise. Please give your opinion about the statements. (SA = Strongly Agree, A = Agree, UD = Undecided, DA = Disagree, SDA = strongly disagree):

Statements	SA	A	UD	DA	SDA
1. An entrepreneur should have more than one enterprise at the same time to avoid risks involved in single enterprise	1	3	4	5	7
2. An Entrepreneur should rather take more of a chance in making a big profit than to be content with a smaller but less risky profit.	7	5	4	3	1
3. An Entrepreneur who is willing to take greater risks than an average person usually does better financially.	7	5	4	3	1
4. It is good for an entrepreneur to take risk when he knows his chance of success is fairly high.	7	5	4	3	1
5. It is better for an Entrepreneur not to try new innovations unless most others in the same enterprise have used that with success.	1	3	4	5	7
6. Trying an entirely new method in any enterprise by an entrepreneur does involved risks but it is worth.	7	5	4	3	1

v) ABILITY TO CO-ORDINATE ENTREPRENEURIAL
ACTIVITIES

(Max. scor - 10, sv - 4.11)

If any enterprise, the entrepreneur has to harmonise and synchronise the various activities. Please give me your response to the following statements. (Scoring : Well in advance = 2, At the nick of time = 1, Have not considered = 0).

Sl. No.	Statement	Well in advance	Nick of time	Haven't Consd.
1.	During last one year how did you plan the purchase of your requirement of inputs ?			
2.	Did you estimate this year financial involvement ? If yes, how?			
3.	How do you plan your purchase of stocks and equipments ?			
4.	Did you set beforehand a target of production for the year ?			
5.	Did you consult specialists beforehand in anticipation of an emergency/crisit ?			

vi) LEADERSHIP ABILITY :

(Max. scr : 10, sv : 2.13)

Here are some statements pertaining to leadership ability. Please give your response. (Scoring : always = 2, sometimes = 1, Never = 0).

Sl. No.	Statements	Always	Sometimes	Never
1.	Do you actively participate in discussions concerning any innovation relating to your enterprise with specialists in group meetings ?			
2.	Whenever you see a new technique, do you initiate discussions about it with your colleagues ?			
3.	Do village people regard you as a good source of information on new techniques ?			
4.	Do you assign works to your family members ?			
5.	Whenever you face a problem, do you come up with solutions yourself ?			

vii) COSMOPOLITENESS :

(Max. scr : 5 , sv : 1.47)

Following statements are related with your cosmopolitenes
Please give your response. (Scoring : Yes = 1, No = 0).

Sl. No.	Statements	Yes	No
1.	Have you ever lived in a larger town or city for sometime in the past for any purpose ?		
2.	Do you visit a town or city quite often in relation to your enterprise ?		
3.	Is it your habit to meet/contact specialists regularly even when there is no immediate need for his help ?		
4.	Are you a member of any organization whose jurisdiction extends beyond your own village ?		
5.	Do you make it a point to visit demonstration camp or exhibition whenever one is organised outside your village ?		

