“ATTITUDE OF RURAL YOUTH TOWARDS AGRICULTURE AS AN OCCUPATION”

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IN
AGRICULTURAL EXTENSION

BY
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B.Sc. (Agri.)

DEPARTMENT OF EXTENSION EDUCATION
B.A. COLLEGE OF AGRICULTURE
ANAND AGRICULTURAL UNIVERSITY
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ATTITUDE OF RURAL YOUTH TOWARDS AGRICULTURE AS AN OCCUPATION

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ABSTRACT

Youth are the most potent segment of the population of a country. The youth of today are the hopes of tomorrow. They are the back bone of the country. Youth have been playing quite a significant role in almost every country of the world as they possess zeal and vigour. Development of youth thus determines the development of community and country as a whole.

Young people, who have urge to be an important part of village community life, are eager to learn new ideas. They have open minds and further they have advantage of education and better capacity of understanding new techniques and skills. The youth is thus the best medium of our community-life on the technological as well as human plane by carrying new ideas and massages to their families. If they are given proper impetus and encouragement, they can be molded to bring about an agricultural revolution in the country which is the need of the day.

Since youth are recognized as effective “change agents”, they can help in the process of dissemination and adoption of modern techniques of agriculture. But now-a-day, the picture is somewhat
Abstract
different. The widespread illiteracy in rural areas, unemployment among the educated youth, lack of proper guidance, 'brain drain' of educated rural youth to urban areas are some of the major problems. It is disturbing to note that youth are losing interest and confidence in agriculture and allied activities; hence, they are not willingly involved in agricultural operations. This fact led the researcher to conduct a study on “Attitude of rural youth towards agriculture as an occupation” with the following specific objectives.

1. To study the profile of rural youth
2. To develop a scale to measure attitude of rural youth towards agriculture as an occupation
3. To measure attitude of rural youth towards agriculture as an occupation
4. To ascertain relationship between profile of rural youth and their attitude towards agriculture as an occupation
5. To study the constraints faced by the rural youth in adopting agriculture as an occupation and their suggestions to overcome such constraints

METHODOLOGY

The present investigation was carried out in Anand district of Gujarat state. Anand district comprises of eight talukas out of which, two talukas viz.: Tarapur and Khambhat were selected for the study. From each selected taluka, five villages were randomly selected and from each selected village, ten rural youth were randomly selected making the sample size of 100 respondents.

The methodological procedure consisted of dependent and independent variables. The independent variables included in the study were education, size of family, caste, social participation, land holding, annual income, occupation, extension contact, economic
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motivation, risk orientation and scientific orientation. Attitude of rural youth towards agriculture as an occupation was taken as dependent variable.

To measure attitude of rural youth towards agriculture as an occupation; scale was developed and standardized. For rest of independent variables, either readymade scales available were used or structured schedules were developed.

An interview schedule was developed in accordance with the objectives of the study. The data were collected through personal interview and were classified, tabulated and analyzed. The statistical measures such as percentage, mean score, coefficient of correlation, step-wise multiple regression and path analysis were used.

Major Findings

1. Majority of the rural youth had higher secondary level of education to graduate and above (72.00 per cent), belonged to large size of family (66.00 per cent) and general caste (52.00 per cent), and had membership in one or more organizations (77.00 per cent).

2. Majority of the rural youth possessed medium to large size of land holding (78.00 per cent), had `1,00,001 to `3,00,000 annual income (63.00 per cent), were engaged in agriculture + animal husbandry occupation (66.00 per cent) and had medium to high level of extension contact (72.00 per cent).

3. Majority of rural youth had medium to high level of economic motivation (66.00 per cent), medium to very high level of risk orientation (85.00 per cent) and medium to high level of scientific orientation (76.00 per cent).
4. Majority (78.00 per cent) of the rural youth had moderately favorable to more favorable attitude towards agriculture as an occupation.

5. Among 11 independent variables, caste, social participation, land holding, annual income, extension contact, economic motivation, risk orientation and scientific orientation were found to have positive and significant correlation, while size of family was found to have negative and significant correlation with attitude of rural youth towards agriculture as an occupation. Rest traits viz. education and occupation were found to be non-significant with attitude of rural youth towards agriculture as an occupation.

6. Multiple regression analysis showed that only 3 variables viz. extension contact, scientific orientation and risk orientation exerted influence on attitude level of rural youth towards agriculture as an occupation which was to the tune of 72.50 per cent when all the three variables were taken together.

7. Path analysis revealed that major variables contributing to the maximum direct positive effect were extension contact, annual income and risk orientation whereas those contributing the maximum negative direct effect were land holding, education and size of family.

8. Major constraints faced by rural youth in adopting agriculture as an occupation were high rate of farming input and seed, less availability of laborers for performing farm operations and unavailability of chemical fertilizers in time.

9. Major suggestions given by the rural youth to overcome the constraints faced by them in adopting agriculture as an occupation were: price of seed should be minimized, low labor
Abstract

Consuming technology should be developed and chemical fertilizers should be made available in time.
Dr. SUNIL R. PATEL
Officer on Special Duty
Collage of Agriculture,
Anand Agricultural University,
Jabugam.

CERTIFICATE

This is to certify that the thesis entitled “ATTITUDE OF RURAL YOUTH TOWARDS AGRICULTURE AS AN OCCUPATION” submitted by RAMJIYANI DWEENKUMAR B. (Reg. No. 04-1640-2011) in partial fulfillment of requirements for the award of the degree of Master of Science (Agriculture) in the subject of Agricultural Extension by the Anand Agricultural University is a record of confide research work carried out by him under my guidance and supervision and the thesis has not previously formed the basis for the award of any degree, diploma or other similar title.

Place : Anand
Date : /08/2013

(SUNIL R. PATEL)
Major Advisor
DECLARATION

This is to certify that whole of the research work reported in the thesis in partial fulfillment of the requirements for the award of the degree of Master of Science (Agriculture) in the subject of Agricultural Extension is the result of investigation done by undersigned under the direct guidance and supervision of Dr. SUNIL R. PATEL, Associate Professor, Training Centre Jabugam, Anand Agricultural University, Anand and no part of research work has been submitted for any other degree so far.

Place : Anand (RAMJIYANI DWEEPKUMAR B.)
Date :  08/2013

Countersigned by

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Officer on Special Duty
Collage of Agriculture,
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Gujarat (India)
First and above all, I would like to express my great thanks to God, for helping me to accomplish this work.

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To all of you whom I have named please accept my deepest Thanks and to whom I have not named please know that even though you are unnamed in this work you are not unknown to me and you are appreciated more Thanks.

Place: Anand
Date: /08/2013 (Dweepkumar B. Ramjiyani)
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I. INTRODUCTION

Youth are the most potent segment of the population of a country. The youth of today are the hopes of tomorrow. They are the backbone of the country. The socio-economic development and prosperity of rural areas depends to a considerable extent, on the type of youth living in rural areas, because the rural youth have abilities to orient themselves to go along the main stream of the development process. They reflect the national potentiality and represent the life blood of a nation. Development of youth thus determines the development of community and country as a whole.

Youth are prone to desire and ready to carry out their desires into action. Young people, who have urge to be an important part of village community life, are eager to learn new ideas. They have open minds and further they have advantage of education and better capacity of understanding new techniques and skills. The youth is thus the best medium of our community-life on the technological as well as human plane by carrying new ideas and massages to their families. If they are given proper impetus and encouragement, they can be molded to bring about an agricultural revolution in the country which is the need of the day.

The youth can make their constructive contribution to national development and through which society can benefit from the idealism and the sense of dedication of youth; at the same time, they also get benefitted from their active participation in development activities, since such participation increases their self esteem, gives them a sense of identity and of being needed by the society. The youth must be exposed to the social realities and the pressing problems that the
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country is confronted with, for being and becoming active partners in national progress and development.

India, both before and after independence, witnessed emergence of youth as a potential force. Involvement of youth in national developmental activities is felt significantly relevant because of their boundless energy and innate idealism, which could give a positive direction in improving the quality of life. The government of India has been organizing planned and systematic programmes for the development of Indian youth for their participation in national development.

The place of rural youth class is more important for the future of the country. The development and harnessing of the talents and energies of rural youth towards constructive work is of greater importance than any other efforts. Rural youth are the precious human assets who can play an important role in the development activities, agriculture and other allied activities. The rural youth male and female, because of their family and community background in farming are active partners in various agriculture and allied activities.

Since youth are recognized as effective “change agents”, they can help in the process of dissemination and adoption of modern techniques of agriculture. If the talents and abilities of rural youth are properly nurtured and systematically guided, agriculture which is the backbone of national economy can attain sustained growth and bring prosperity to the country. Agriculture generally, involves five stages viz., production, processing, storage, marketing and consumption. In most of these stages, rural youth can actively be involved. They participate in most of the agricultural operations like ploughing, harrowing, sowing, transplanting, weeding, harvesting, post
Introduction

harvesting activities and so on. Rural youth participate in marketing where the trade or enterprise is highly/largely commercialized. Rural youth play a key role in performing various tasks related to dairy and animal husbandry enterprise like maintenance of cattle/goat shed feeding of animal/goats, collection of fodder for animals etc.

But now-a-day, the picture is somewhat different. The widespread illiteracy in rural areas, unemployment among the educated youth, lack of proper guidance, ‘brain drain’ of educated rural youth to urban areas are some of the major problems. It is disturbing to note that youth are losing interest and confidence in agriculture and allied activities; hence, they are not willingly involved in agricultural operations. In spite of excellent and tremendous development in the field of agriculture science and technology only a few have been adopted. Youth are more receptive to new innovations and/or techniques in any field of development than the elder ones. The youth if provided training in modern agricultural technologies, they not only come forward to accept changes but also they can influence and educate their family members and other farming community about modern technologies. The basic input for achieving higher yields is assimilation of technological knowledge for which the first step is getting the knowledge. Knowledge is one of the important components of behavior and the adoption of any innovation depends upon the knowledge, attitude and investment capacity of an individual. It has been globally accepted that the attitude of an individual plays a pivotal role in influencing his/her behavior. Hence, the attitude of rural youth in India towards modern agriculture will most certainly have bearing on the future of agricultural development in this country. This fact led
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the researcher to conduct a study on “Attitude of rural youth towards agriculture as an occupation”.

1.1 Statement of the Problem:

Rural youth are the most important segment of the country like India where agriculture is the back bone of national economy. Thus, to make our country agriculturally prosperous, it becomes quite essential that the energies and potential of the rural youth are properly molded and utilized. As per one estimate, more than 380 million youth, “India’s best resource”, will be unable to find job by the year 2016 (Anonymous 2009b), and their potentialities will be wasted through unemployment, underemployment and disgust. So there is a huge scope to use potential of rural youth in agriculture to achieve our target of food production.

But, rural youth now a days, have been losing their interest in agriculture. Instead of being self employed in agriculture and allied activities, they are now turning to be “Job seekers”. This picture is quite disgusting and not hopeful for future. This situation necessitates studying the attitude of rural youth towards agriculture. Further, it would also be worthwhile to study the different characteristics of rural youth and their association with attitude so that the characteristics which play important role in shaping favorable attitude among rural youth towards agriculture as an occupation can be identified and molded appropriately. Besides this, there might be certain factors which constrain rural youth to adopt agriculture as a profession. Considering all above things, a study entitled “Attitude of rural youth towards agriculture as an occupation” was thought to be undertaken with the following objectives.

1.2 Objectives of the study:
Introduction

1. To study the profile of rural youth
2. To develop a scale to measure attitude of rural youth towards agriculture as an occupation
3. To measure attitude of rural youth towards agriculture as an occupation
4. To ascertain relationship between profile of rural youth and their attitude towards agriculture as an occupation
5. To study the constraints faced by the rural youth in adopting agriculture as an occupation and their suggestions to overcome such constraints.

1.3 Scope of the study:

Rural youth have immense potential which, if properly utilized, can be of great use for agricultural development. To engage rural youth in agriculture, it is essential to inculcate favorable attitude in them for agriculture. In this context, the present study is an attempt to know the attitude of rural youth towards agriculture as an occupation. To measure such attitude of rural youth, a valid and reliable scale has been developed by the researcher which can be utilized in future investigations. Further, the study would also throw light on the constraints that play adverse role in forming favorable attitude among rural youth towards agriculture as an occupation. Moreover, study would also be helpful to know the characteristics of rural youth that have significant relationship with their attitude towards agriculture. All such information in turn would enable the planners and policy makers to develop strategies for agricultural development in such a way that the potential of rural youth can be utilized in a more productive and effective way.

1.4 Formulation of hypothesis:
Introduction
In view of the specific objectives of the study, following null hypotheses were formulated for statistical testing:

**Ho1:** There is no relationship between education of the rural youth and their attitude towards agriculture as an occupation.

**Ho2:** There is no relationship between size of family of the rural youth and their attitude towards agriculture as an occupation.

**Ho3:** There is no relationship between cast of the rural youth and their attitude towards agriculture as an occupation.

**Ho4:** There is no relationship between social participation of the rural youth and their attitude towards agriculture as an occupation.

**Ho5:** There is no relationship between land holding of the rural youth and their attitude towards agriculture as an occupation.

**Ho6:** There is no relationship between annual income of the rural youth and their attitude towards agriculture as an occupation.

**Ho7:** There is no relationship between occupation of the rural youth and their attitude towards agriculture as an occupation.

**Ho8:** There is no relationship between extension contact of the rural youth and their attitude towards agriculture as an occupation.

**Ho9:** There is no relationship between economic motivation of the rural youth and their attitude towards agriculture as an occupation.

**Ho10:** There is no relationship between risk orientation of the rural youth and their attitude towards agriculture as an occupation.

**Ho11:** There is no relationship between scientific orientation of the rural youth and their attitude towards agriculture as an occupation.

1.5 Limitations of the study:
Introduction

The study was conducted under following limitations:

1. Because of the limited resources available with the researcher, the sample size was confined to only 100 rural youth.
2. The findings are based on opinions/responses as expressed by the respondents.

1.6 Operationalization of the concepts used:

1.6.1 Education:

It refers to the formal education attained by the selected rural youth individually.

1.6.2 Size of family:

It refers to the total number of members living together under one common headship and sharing food under one roof of the family of rural youth.

1.6.3 Caste:

It refers to the categories of persons arranged in levels according to the social status in the society by birth. It is conceptualized here as comprising four categories viz. General, SEBC i.e. Socially and Economically Backward Caste, SC (Scheduled Caste) and ST (Scheduled Tribe.)

1.6.4 Social participation:

It is the participation of rural youth in the various formal and informal institutions and organizations.

1.6.5 Land holding:

It refers to the total land possessed by the family of rural youth in terms of hectares at the time of investigation.

1.6.6 Annual income:
Introduction

It refers to the income, obtained annually by the family of selected rural youth from agriculture and other sources.

1.6.7 Extension contact:

It refers to the contact made by the rural youth with extension agency or extension worker either locally or outside the village.

1.6.8 Economic motivation:

It refers to the degree to which rural youth are oriented to maximize their profit by putting emphasis on economic ends.

1.6.9 Risk orientation:

It is a degree to which rural youth are oriented to take risk and uncertainty and have courage to face the problems in use of agricultural technologies.

1.6.10 Scientific orientation:

It is a degree to which rural youth are oriented to use scientific methods and latest technologies in agriculture.

1.6.11 Attitude:

It is the degree of favourableness or unfavourableness of rural youth towards agriculture as an occupation.

1.6.12 Constraint:

Constraint means hindrance or obstruction in the way of rural youth in adopting agriculture as an occupation.
II. REVIEW OF LITERATURE

The main purpose of this chapter is to organize and present the findings of the past research studies, which are related to the present investigation. The review of literature leads the researcher to conclude his findings with reference to past studies. It is also necessary in developing conceptual framework and selection of appropriate design for the study. As the literature having direct bearing on different aspects of the present study is limited hence, the references having little or indirect bearings are also reviewed. In accordance with the objective of the study, a brief account of related literature has been reviewed and presented in following heads:

2.1 Profile of rural youth
2.2 Attitude of the rural youth towards agriculture as an occupation
2.3 Relationship between the selected characteristics of rural youth and their attitude towards agriculture as an occupation
2.4 Constraints faced by the rural youth in adopting agriculture as an occupation
2.5 Suggestions to overcome the constraints.

2.1 Profile of rural youth:

The set of independent variables i.e. education, size of family, caste, social participation, land holding, annual income, occupation, extension contact, economic motivation, risk orientation, scientific orientation have been included in the present study. The reviews of the past studies pertaining to these variables have been presented below.

2.1.1 Education:

As reported by Temkar (2000), 30.00 per cent of dairy farmer had above secondary level of education followed by 28.33 per cent of
them with secondary and higher secondary level of education, further slightly more than one fourth (25.84 per cent) of them had primary level of education while only 5.83 per cent were illiterate.

Parmar (2006) reported that slightly more than two fifth (43.34 percent) of the paddy growers were educated up to primary level, where as slightly less than one third (30.00 percent) of them possessed education up to secondary and higher secondary level.

Sajjan (2006) reported that youths in rainfed tract were found to have education up to S.S.L.C (31.66 per cent), P.U.C (21.66 per cent), degree level (15.00 per cent) and middle school level (13.33 per cent). Only 8.33 per cent of them were educated primary school while 10.00 per cent of them were illiterate.

Uddin et.al. (2008) in their study conducted in Patuakhali district of Bangladesh reported that 53.84 per cent of the respondents had education up to secondary level whereas, 24.17 per cent of the respondents were educated up to primary level followed by 10.98 per cent of the respondents who had education up to higher secondary level. Only 5.49 per cent of the respondents were semi illiterate or illiterate.

Bhosale (2010) reported that slightly less than two fifth (36.67 percent) of the rural youth had education up to secondary level, followed by 28.65 percent who had college and above level of education. Further 25.83 percent of them were educated up to higher secondary level, while only 9.17 percent had primary level of education.

Mosaer and Ommani (2011) reported that 15.20 per cent, 19.40 per cent and 18.10 per cent of rural youth were educated up to elementary level, middle school and high school, respectively. Further,
18.10 youths were diploma holder while 10.10 per cent and 19.4 per cent youths were associate and university students, respectively.

2.1.2 Size of family:

Manay and Farzana (2000) observed that the family size of about three fifth (59.00 percent) of the respondents was medium, while 34.00 percent were from small sized families, only 7.00 percent of the respondents were from big families. On an average, the respondents had five family members.

Mankar et al. (2000) stated that majority (78.66 percent) of the fishermen were found with large family size, while 21.34 percent of them were with small family.

Sajjan (2006) in his study conducted in Bagalkot district of Dharwad reported that in irrigated tract, majority of the respondents (61.66 per cent) belonged to medium sized family, one fifth of the respondents (20.00 per cent) belonged to small sized family while, 18.33 per cent of the respondents were from families with large size.

Uddin et al. (2008) in their study conducted in Patuakhali district of Bangladesh reported that nearly three fifth (58.24 per cent) of the respondents belonged to medium sized family, nearly one fourth (24.17 per cent) of the respondents belonged to small family while, 17.58 per cent of the respondents were from large families.

Deshmukh et al. (2009) revealed that 45.83 per cent of the youths were from family with medium size followed by 26.67 per cent and 24.17 per cent of them who were from the families with big and small size, respectively.

Bhosale (2010) stated that majority (71.67 percent) of the rural youth had large sized family and rest 28.33 percent of the rural youth belonged to families with small and medium size.
Review of Literature

Gwary et.al. (2011) reported that about 46.00 per cent of the youths had 1 to 5 members in their family, 16.00 per cent of the youths had 6 to 10 members in their family, whereas 4.00 per cent and 10.00 per cent of the youths had 11 to 15 and above 15 members in their family, respectively.

Cavane (2011) reported that majority (65.20 per cent) of the respondents has less than 8 members in their family.

2.1.3 Caste:

Kosambi (1997) revealed that more than half (56.75 percent) of the respondents were from higher caste, followed by 36.48 percent and 6.77 percent of them who were from middle caste and lower caste, respectively.

Patel (2005b) concluded that more than three fifth (64.55 percent) of the respondents were from non-reserved (general) category, while 22.72 percent and 9.09 percent of the respondents were belonged to other backward category and schedule caste category, respectively.

2.1.4 Social participation:

Patel (2006) found that 43.33 percent of the paddy growers had membership in one organization, followed by 31.67 percent who had no membership in any organization. Only 9.17 percent of the respondents were members in more than one organization.

Sajjan (2006) reported that in rainfed tract 36.66 per cent of the respondents were members of youth club, out of whom 23.33 per cent of them attended meetings occasionally, whereas only 13.33 per cent of the respondents attended the meetings of youth club regularly.
Kumar et al. (2008) stated that more than half (55.71 percent) of the paddy growers had medium level of participation in various social organizations.

Deshmukh et al. (2009) revealed that about one third (32.50 percent) of the youths had low social participation, whereas 25.83 percent and 41.67 percent of the youths had medium and high social participation, respectively.

Bhosale (2010) stated that more than two fifth (42.50 percent) of rural youth had membership in one organization, followed by 29.17 percent and 23.33 percent of them who had membership in more than one organizations and no membership in any organization, respectively. Only 5.00 percent of rural youth were position holders.

Umeh and Odom (2011) reported that majority (90 percent) of the youth association were directly involved in construction and rehabilitation of rural roads, 80 percent of the youths participation in mobilization of people in major national event and 70 percent provided for labour community self-help projects and promotion of cultural heritage.

2.1.5 Land holding:

Toppo (2005) concluded that majority (80.83 percent) of the farm woman had marginal land holding up to 1.00 ha which they received from their parents as a share after their marriage.

Sajjan (2006) reported that 45.00 percent of respondents had small land holding (2.5 to 5.0 acres) followed by 20.00 percent of them each with marginal land holding (up to 2.5 acres) and semi medium land holding (5 to 10 acres), while 15.00 percent of them had medium land holding (10 to 15 acres).
Review of Literature

Uddin et al. (2008) reported that more than two fifth (43.95 per cent) of the rural youth were small farmers, while rest of them were medium (37.36 per cent), large (12.08 per cent) and marginal (6.59 per cent) farmers.

Deshmukh et al. (2009) revealed that 28.34 per cent of youths had small land holding followed by 20.83 per cent, 18.33 per cent and 15.83 per cent youths who had medium, semi medium and large land holding, respectively.

Bhosale (2010) reported that about two fifth (38.33 percent) of the rural youth were small farmers, whereas rest of them were medium (29.18 per cent), large (23.33 per cent) and marginal (9.16 per cent) farmers.

2.1.6 Annual income:

Dongaradiv (2002) observed that half of the chilli growers (50.00 per cent) had low income, while 33.33 per cent had medium and 16.67 percent had high annual income.

Joshi (2004) reported that 44.54 percent of the respondents had high annual income (above ` 60,000), followed by 31.82 percent and 23.64 percent of the respondents who had low income (up to ` 30,000) and medium income (`, 30,000/- to `, 60,000), respectively.

Sajjan (2006) reported that in irrigated tract, 58.33 per cent of the respondents had medium annual income, while 23.32 per cent and 19.00 per cent of them had high and low annual income, respectively.

Uddin et al. (2008) revealed that about half (51.64 per cent) of the respondents had medium income followed by 36.26 per cent and 15.38 per cent of the respondents with low and high income, respectively.
Review of Literature

Deshmukh et al. (2009) reported that half of youths (50.00 per cent) had low annual income (up to ` 22,800), followed by 40.00 per cent of youths who had medium ( ` 22,801 to ` 70,150) and remaining 10.83 per cent youths had high ( ` 70,150 and above) annual income.

2.1.7 Occupation:

Singh (2007) indicated that majority (60.00 percent) of the tobacco growers were dependent on farming and animal husbandry for their livelihood, followed by farming along with animal husbandry and farm labouring (27.50 percent) and farming only (12.50 percent).

Bhosale (2010) observed that three fifth (60.00 percent) of the rural youth were dependent on farming along with animal husbandry for their livelihood, whereas 22.50 percent and 17.50 percent of them were dependent on farming only and farming along with animal husbandry with farm labours, respectively.

2.1.8 Extension contact:

Patel (2006) observed that majority of the paddy growers (75.00 percent) had medium extension contact, followed by low extension contact (14.17 percent) and high extension contact (10.83 per cent).

Uddin et al. (2008) reported that more than half (53.84 per cent) of the respondents had medium extension contact, followed by 23.07 per cent of the respondents with high and 21.97 per cent with low extension contact.

Deshmukh et al. (2009) revealed that majority (80.83 per cent) of the respondents had medium extension contact, whereas 32.50 per cent and 16.67 per cent of the respondents had low and high extension contact, respectively.

Bhosale (2010) observed that majority (60.00 percent) of the rural youth had medium level of extension participation whereas
Review of Literature

21.66 percent and 18.34 percent of them had high and low level of participation in various extension activities, respectively.

2.1.9 Economic motivation:

Vasava (2005) reported that two fifth of the pigeon growers (40.00 percent) had medium level of economic motivation.

Patel (2006) observed that 61.67 percent of the paddy growers had medium economic motivation, followed by 20.83 percent and 17.50 percent of them with low and high economic motivation, respectively.

Sajjan (2006) reported that slightly less than half (46.67 percent) of the respondents had medium level of economic motivation, followed by 33.33 percent and 20.00 percent of them with high level and low level of economic motivation, respectively.

Bhosale (2010) reported that more than half (55.84 percent) of the rural youth belonged to medium economic motivation category, whereas 24.16 percent and 20.00 percent of the rural youth had high and low economic motivation, respectively.

2.1.10 Risk orientation:

Murali and Jhamtani (2003) reported that majority (68.75 percent) of the respondents were moderate risk taker, whereas 21.25 percent of the respondents were high risk taker, while only 10.00 percent of the respondents were low risk taker.

Sahoo (2004) found that 62.50 percent of the respondents were from medium risk orientation group, whereas 30.84 percent and 06.66 percent of the respondents belonged to low and high category, respectively.

Keshavmurthy (2005) found that majority (60.00 percent) of the respondents had medium level of risk orientation, whereas one fourth
Review of Literature

(25.00 per cent) of the respondents had low risk orientation and remaining 16.66 per cent possessed high risk orientation.

Patel (2006) revealed that majority of the paddy growers (68.33 percent) had medium risk orientation, followed by 17.50 percent and 14.17 percent of them with high and low level of risk orientation, respectively.

Bhosale (2010) observed that 62.50 percent of the respondents had medium risk orientation, whereas 30.84 percent and 06.66 percent of the respondents belonged to low and high category of risk orientation, respectively.

2.1.11 Scientific orientation:

Patel (2005a) observed that 42.31 percent of the respondents were found with medium level of scientific orientation, followed by 30.77 percent with high and 26.92 percent of the respondents with low level of scientific orientation.

Vasava (2005) reported that more than half of the pigeon pea growers (53.33 per cent) had medium level of scientific orientation.

Patel (2006) observed that majority of the paddy growers (79.17 percent) had medium level of scientific orientation, followed by 10.83 percent and 10.00 percent of the respondents who had low and high level of scientific orientation, respectively.

Bhosale (2010) reported that majority (67.50 percent) of the rural youth had medium level of scientific orientation followed by high (19.16 percent) and low (13.34 percent) level of scientific orientation.

2.2 Attitude of rural youth towards agriculture:

Singh et al. (1999) observed that slightly more than half (56.00 percent) of the farmers had moderate attitude towards dry farming technologies, followed by 32.00 percent and 12.00 percent of them
Review of Literature

with high and low attitude towards dry farming technologies, respectively.

Rahman (2000) reported that an overwhelming majority (84.00 percent) of the farmers were found to have favourable and moderately favourable attitude while only 16.00 percent of the farmers were found to have unfavourable attitude towards organic farming.

Hiremath (2000) in her study conducted in Dharwad District of Karnataka state reported that majority of the youth (61.67per cent) had unfavorable attitude, whereas 36.67per cent had favorable attitude towards agriculture. Only 1.66per cent of them were found with neutral attitude towards agriculture.

Monohari (2001) in her study conducted in Hyderabad reported that more than half of the primitive tribal groups (58.75per cent) possessed moderately favorable attitude towards agricultural technology followed by highly favorable attitude (26.25per cent). Only 10.00 per cent of them were found to have neutral attitude and meager per cent of them (5.00per cent) had unfavorable attitude. None of them was found to have highly unfavorable attitude.

Patel and Chauhan (2004) indicated that more than half (55.00 percent) of the farmers had moderately favourable attitude towards IPM strategy, followed by 30.00 percent with less favourable and 15.00 percent with highly favourable attitude towards IPM strategy.

Patel (2005) indicated that 61.00 percent of the farmers had moderately favourable attitude towards organic farming practices, whereas 22.00 percent and 17.00 percent had less and highly favourable attitude towards organic farming practices, respectively.

Pise (2006) revealed that majority (68.66 percent) of the respondents had moderately favourable attitude towards banana
Review of Literature

cultivation technology, whereas 16.67 percent and 14.67 percent of
the respondents had highly favourable and less favourable attitude
towards banana cultivation, respectively.

Sajjan (2006) revealed that slightly more than three-fifth of the
respondents (61.66 per cent) had moderately favourable attitude while
21.66 per cent of them had more favourable attitude towards
agriculture. Only 16.66 per cent of the respondents were found to
possess less favourable attitude towards agriculture.

Uddin et al. (2008) revealed that majority (71.43 per cent) of the
costal youths had moderately favorable attitude, followed by 17.58 per
cent and 10.99 per cent of them, who had favorable and unfavorable
attitude toward the selected agricultural technologies, respectively.

Laharia (2009) reported that majority (77.48 per cent) of the
respondents had highly favorable attitude, while 19.82 per cent of the
respondents had favorable attitude. Only 2.70 per cent of the
respondents had unfavorable attitude.

Abdullahi et al. (2010) reported that majority (63.00 per cent) of
the respondents had moderately favorable attitude, whereas 22.00 per
cent and 16.00 per cent had unfavorable and favorable attitude toward
family farming, respectively.

2.3 Relationship between variables and attitude:

2.3.1 Education and attitude:

Bhagheri and shahbazi (2003) revealed that literacy was found
to have a statistically significant effect on youth’s skill

Patel and Chauhan (2004) observed that education was
positively and significantly related with attitude towards IPM strategy.
Review of Literature

Patel (2005) indicated that there was positive and significant correlation between degree of attitude of the respondents and their education.

Olujide (2008) reported significant relationship between education of youths and their attitude towards rural development.

2.3.2 Size of family and attitude:

Patel and Chauhan (2004) observed that there was no significant relationship between size of family and attitude of the respondents towards IPM strategy.

Kashem and Rashid (2005) reported that family size of youth respondents had positive and significant relationship with perceived usefulness of training.

Patel (2005) indicated that with decrease in size of family, favourableness of attitude towards organic farming practices increased.

Bite (2009) reported non significant relationship between size of family and attitude of farmers towards farm mechanization.

2.3.3 Caste and attitude:

Ajit (2004) reported that there was no significant relationship between caste and attitude of the respondents towards education.

Patel (2005b) found positive and significant relationship between caste and attitude of the respondents.

2.3.4 Social participation and Attitude:

Patel (2005) indicated that there was positive and significant association between level of attitude of respondents towards organic farming and their social participation.
Review of Literature

Patel (2006) indicated that attitude of respondents towards the use of pesticides in paddy crop had significant relationship with their social participation.

Uprikar (2008) revealed that there was positive significant relationship between social participation and attitude of rural youths towards agri-business enterprises.

2.3.5 Land holding and Attitude:

Singh et al. (1999) revealed that size of land holding of the respondents was not associated with their attitude towards dry farming technologies.

Patel (2006) indicated that the family land holding was found to have non-significant relationship with the attitude of the respondents.

Uprikar (2008) reported positively significant relationship between land holding and attitude of rural youths towards agri-business enterprise.

Gwary et al (2011) revealed that land holding of youths had significant relationship with level of involvement in agricultural activities.

2.3.6 Annual income and attitude:

Singh et al. (1999) revealed that annual income of the respondents was positively and significantly associated with their attitude towards dry farming technologies.

Rashid et al. (2002) revealed that family income of dropout unemployed farm youths had significant and negative relationship with their extent of willingness to become self-employed.
Review of Literature

Patel (2005) found that family income was positively and significantly related with the attitude of the respondents towards organic farming practices.

Uprikar (2008) revealed that there was significant relationship between annual income and attitude of rural youths towards agri-business enterprises.

2.3.7 Occupation and attitude:

Pise (2006) revealed that occupation of the respondents had significant correlation with their attitude towards banana cultivation technology.

Trivedi (2010) reflected that involvement in various occupations by the cumin growers was observed to have non-significant correlation with their degree of attitude and adoption of crisis management practices in cumin cultivation.

2.3.8 Extension contact and attitude:

Patel and Chauhan (2004) observed that the extension contact of the respondents was found to have positive and significant correlation with their attitude towards IPM strategy.

Patel (2006) indicated that extension contact of the paddy growers had highly significant relationship with the attitude towards the use of pesticides in paddy crop.

Uprikar (2008) revealed that there was significant relationship between extension contact and attitude of rural youths about agri-business enterprises.

Aski et al. (2010) revealed that extension contact of respondents had positive and significant relationship with knowledge of sunflower growers of Bijapur District.
2.3.9 Economic motivation and attitude:

Deshmukh et al. (1998) revealed that the economic motivation of the groundnut growers was positively and significantly associated with their level of attitude.

Patel (2005) indicated that there was positive and significant association between level of attitude towards organic farming practices of the respondents and their economic motivation.

Surve and Jondhale (2003) indicated that economic motivation was significantly and positively related with credit payment behaviour of members of primary agricultural credit society.

Uprikar (2008) revealed that there was significant relationship between economic motivation and attitude of rural youths about agri-business enterprises.

Aski et al. (2010) reported that economic motivation of respondents had positive and significant relationship with knowledge of sunflower growers of Bijapur District.

2.3.10 Risk orientation and attitude:

Prasad and Sundaraswamy (2000) stated that the risk orientation of the farmers was positively and significantly correlated with their attitude towards dry farming technologies.

Patel (2005) indicated that the risk orientation of the respondents had non-significant association with their level of attitude.

Bite (2009) reported that there was positive and significant relationship between risk preference and attitude of farmers toward fam mechanization.
Review of Literature

Aski et al. (2010) reported that risk orientation of respondents had positive and significant relationship with Sunflower growers of Bijapur District.

Dighe and Rajput (2010) reported that risk preference of respondents had positive and significant relationship with knowledge of soil and water conservation practices by farmers in Vidarbha (Maharastra).

2.3.11 Scientific orientation and attitude:

Padmavati et al. (1999) reported that scientific orientation of the Mitrakishan was positively and significantly related with their attitude towards National Watershed Development Project for Rainfed Areas (NWDPRA).

Awasthi et al. (2000) found that there was significant relationship between scientific orientation and attitude towards improved dairy practices.

2.4 Constraints faced by farmers in adoption of Agriculture:

Shivalingaiah et al. (1996) conducted study on farming problems of rural youth and reported that a vast majority of small and big farm youth expressed high cost of fertilizers and chemicals, lack of subsidies, high cost of production and lack of credit facilities as their major problems.

Phalke and Shaikh (2000) revealed that as opined by all rural unemployed youth, their unemployment was due to lack of irrigation facility, whereas 91.20 per cent of the respondents faced a difficulty in meeting family needs.

Muhammad et al. (2004) reported that rural youth had educational, economic, social, and health problems.
Review of Literature

Nath and Bhattacharya (2004) found that more than four-fifth of the respondents had problem of lack of irrigation facility, lack of technical guidance and lack of reliable information sources.

Sajjan (2006) reported that majority of the farmers (70.00 per cent) expressed the problem of higher cost of inputs like fertilizers and seeds followed by problem of pest and diseases attack to crops (53.33 per cent), lower returns (46.66 per cent), lack of training (45.00 per cent) and underemployment (26.66 per cent).

2.5 Suggestions to overcome such constraints:

As reported by Sajjan (2006), 46.66 per cent of the respondents suggested to conduct training programmes related to agriculture and other income generating activities, whereas 38.33 per cent of them suggested to minimize cost and one third of the respondents (33.33 percent) suggested to conduct effective educational activities in their village to create awareness about education and health.
This chapter deals with the research design, tools and techniques of a scientific investigation. It entails the methods and procedures used for measuring dependent and independent variables. It also concerns with the selection of proper sampling techniques for investigation as well as devices used for analysis of data. The methodology adopted for the study is discussed under the following heads.

3.1 Area of the study
3.2 Sampling technique
3.3 Research design
3.4 Selection of variables
3.5 Measurement of variables
3.6 Construction and pretesting of interview schedule
3.7 Method of data collection
3.8 Statistical framework for analysis of data
3.9 Conceptual model

3.1 AREA OF THE STUDY:

The present investigation was carried out in Anand district of Gujarat State because of following reasons:

1. Anand district falls under jurisdiction of AAU, Anand in Gujarat state.
2. No any study in Anand district has been conducted so far on specific aspect of attitude of rural youth towards agriculture as an occupation.
3. Since half of the time of the investigator was devoted in development of scale, it was thought worthwhile to select a
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nearby district with which the investigator is familiar so that data collection work can be completed within stipulated time. Keeping this in view, Anand district was selected.

4. A large number of development projects, State Agriculture Department, non-government organizations, cooperative organizations, Krushi Vigyan Kendra and Anand Agricultural University are in operation for development of farmers’ community in this district.

3.2 SAMPLING TECHNIQUE

Anand district comprises of eight talukas out of which, two talukas viz:- Tarapur and Khambhat were selected for the study. From each selected taluka, five villages were randomly selected which are shown in the following Table 1 and Fig. 2.

**Table 1: Selected villages from selected talukas in Anand district**

<table>
<thead>
<tr>
<th>Name of taluka</th>
<th>Name of village</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarapur</td>
<td>Dugari</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Moraj</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Padra</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Adruj</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Bhanderaj</td>
<td>10</td>
</tr>
<tr>
<td>Khambhat</td>
<td>Gudel</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Haripura</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Paladi</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Motipura</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Vatra</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

From each selected village, 10 youth were randomly selected as respondents. Thus all in all, 100 respondents i.e. youth were selected for the investigation.

3.3 RESEARCH DESIGN

As stated by Kerlinger (1976), ex-post facto research design is worthy to be applied when the independent variables have already
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acted upon. Keeping in view the objectives of the study, ex-post facto research design was applied. Ex-post facto research design is a systematic experimental inquiry in which the researcher does not have any direct control on independent variables.

3.4 SELECTION OF THE VARIABLES

The selection of variables included in the study was done on the basis of extensive review of literature related to the subject and in consultation with the major guide and experts. Finally the variables that were found to be most relevant to the present study were selected which are as under.

3.4.1 Dependent variables

I) Attitude of rural youth towards agriculture as an occupation

3.4.2 Independent variables

I) Personal Variables:
   1. Education

II) Socio-Economic Variables:
   1. Size of family
   2. Caste
   3. Social participation
   4. Land holding
   5. Annual income
   6. Occupation

II) Communicational Variable:
   1. Extension contact

III) Psychological Variables:
   1. Economic motivation
   2. Risk orientation
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3. Scientific orientation

3.5 MEASUREMENT OF THE VARIABLES

3.5.1 Dependent variable:

Attitude of rural youth towards agriculture as an occupation

In this study an attempt has been made to develop a scale, which can scientifically measure attitude of rural youth towards agriculture as an occupation. Among the techniques available for the development of scales, the Thurston's equal appearing interval scale (1928) and the Likert’s summated rating scale (1932) are quite well known. However, both the methods suffer from the limitations, the first one in getting discriminating response and second one in selection of items. Thus, technique chosen to develop the attitude scale was of “Scale Product Method” which combines the Thurston's technique of equal appearing interval scale for selection of the items and Likert’s techniques of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown (1949).

Steps in Development of Attitude Scale

Steps in development of attitude scale is present in Fig. 3 and discussed as below

3.5.1.1 Item Collection

The items making up an attitude scale are known as statements. The statements were collected from the relevant literature as well as constructed through discussion with experts, major guide and extension personnel. The statements thus selected were edited on the basis of the criteria laid down by Edward (1957).

3.5.1.2 Statement analysis

Seventy slips of these statements were distributed among 70 selected experts working in Department of Extension Education and
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Directorate of Extension Education of four Agricultural Universities of Gujarat as well as Extension Education Institute, Anand Agricultural University. The judges were asked to judge the degree of unfavourableness or favourableness of each statement for its inclusion in the final scale on the five point equal appearing interval continuum. Out of these experts, only 50 experts returned the statement after duly recording their judgments and were considered for the analysis.

3.5.1.3 Determination of Scale and Quartile Value

The five points of the rating scale were assigned score ranking from 1 for most unfavourable and 5 for most favourable. The based on judgment, the median value of the distribution and the Quartile (Q) value for the statement concerned was calculated with the help of following formula.

\[ S = L + \frac{0.50 - Pb}{Pw} \times i \]

Where,
- \( S \) = Median or Scale value of the statement
- \( L \) = Lower limit of the interval in which the median falls
- \( Pb \) = Sum of the proportion below the interval in which the median falls
- \( Pw \) = Proportion within the interval in which the median falls
- \( i \) = Width of the interval, which was assumed as equal to 1.0 (one).
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The inter-quartile range ($Q = Q_3 - Q_1$) for each statement was also worked out for determination of ambiguity involved in the statement.

When there was a good agreement among the judges in judging the degree of unfavourableness or favourableness of a statement, $Q$ value was observed smaller than the scale value, but when there was relatively little agreement among the judges, $Q$ value was observed bigger than the scale value. Only those items were selected whose (median) scale value were greater than $Q$ values. However, when a few items had the same scale values, items having lowest $Q$ value were selected. Based on the scale (median) and $Q$ values, 14 statements were finally selected to constitute attitude scale.

The selected 14 statements for final format of the attitude scale were randomly arranged to avoid bias response. Again each of 14 statements, there were five columns representing a five point continuum of agreement or disagreement to the statements as followed by Likert (1932). The points on continuum were strongly agree, agree, undecided, disagree and strongly disagree with weight of 5, 4, 3, 2 and 1, respectively for favourable statements and 1, 2, 3, 4 and 5, respectively for unfavourable or negative statements. The final format of the scale is presented in Appendix.

3.5.1.4 Reliability of the scale

The split-half technique was used to measure the reliability of the scale. The 14 statements were divided into two equal halves with 7 odd numbered and 7 even numbered statements in other. These were administered to 20 respondents who were not selected for the study. Each of the two sets was treated as separate scale. Having obtained two sets of score for each of the 20 respondents, co-efficient of
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reliability between the two sets of score was calculated by Rulon's formula (Guilford 1954), which was 0.75. Thus, scale developed for the purpose was found quite reliable.

\[ r_{tt} = \frac{\sigma^2_d}{\sigma^2_t} \]

Where,

\( r_{tt} \) = Co-efficient of reliability
\( \sigma^2_d \) = Variance of these differences
\( \sigma^2_t \) = Variance of total scores

3.5.1.5 Administering the scale

The final attitude scale was administered on the sample of rural youths. They were asked to express their reaction in terms of their agreement or disagreement with each item by selecting one of five response categories. The total attitude score for each respondent was obtained by adding the scores of their responses of all the statements and arbitrary classification of the respondents was made into five categories viz., Least favourable (14 to 24), Less favourable (25 to 35), Moderately favourable (36 to 48), More favourable (49 to 59), Most favourable (60 to 70).

3.5.1.6 Validity of scale

The validity of the scale was examined with the help of content validity by determining how well the content of the scale represented the domain subject matter under study. Since as many items covering the area as possible were selected by discussion with the experts, reviewing the literature and strict adherence to the judges’ ratings, it was presumed that the instrument satisfied the content validity.
3.5.2 Measurement of independent variable

3.5.2.1 Education

Education is a process of producing desired changes in the behaviour of people. In context of this study, education is an important aspect on part of rural youth which affects their attitude towards agriculture.

Education was operationalized here as the number of years of formal education attained by the rural youth and on that basis they were classified into five categories. The scoring system followed was as under:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Education</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Illiterate</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Primary education (1st to 7th std)</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Secondary education (8th to 10th std)</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Higher secondary education(11th and 12th std)</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Graduation and above</td>
<td>4</td>
</tr>
</tbody>
</table>

3.5.2.2 Size of family

Family size was measured as the number of individuals of both sexes living together in household of rural youth. Based on this, the respondents were classified into two categories with scoring as shown under.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small size (Up to 4 members)</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Large size (Above 4 members)</td>
<td>2</td>
</tr>
</tbody>
</table>

3.5.2.3 Caste

Caste refers to the categories of persons arranged in levels according to the social status in the society by birth. It can have influence on behavioral aspects. The information in this respect was collected from the rural youth through prepared structured schedule
Research Methodology

and they were grouped into four caste categories as per state government regulation viz. Open, Other backward caste, Scheduled caste and Scheduled tribe. The scoring system followed was as under.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Schedule Tribe</td>
<td>1</td>
</tr>
<tr>
<td>2.</td>
<td>Schedule Caste</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Other back ward</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>General</td>
<td>4</td>
</tr>
</tbody>
</table>

3.5.2.4 Social participation

Social participation in the present study was operationalized as the degree to which an individual was associated with different formal social organizations. The information in regards with participation of the rural youth in the social organizations as a member or as a position holder was collected and on that basis, they were categorized into different levels of social participation as under.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Social participation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No membership</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Membership in one organization</td>
<td>1</td>
</tr>
<tr>
<td>3.</td>
<td>Membership in more than one organizations</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Membership along with position holding in organization</td>
<td>3</td>
</tr>
</tbody>
</table>

3.5.2.5 Land holding

Land holding in the present study indicates the number of hectares of land possessed by the family of rural youth. Accordingly, the rural youth were categorized as below.
Research Methodology

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Land holding (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marginal</td>
<td>up to 1.00 ha</td>
</tr>
<tr>
<td>2</td>
<td>Small</td>
<td>1.01 ha to 2.00 ha</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>2.01 ha to 4.00 ha</td>
</tr>
<tr>
<td>4</td>
<td>Large</td>
<td>above to 4.00 ha</td>
</tr>
</tbody>
</table>

3.5.2.6 Annual income

It refers to the total income, obtained annually by the family of selected rural youth from agriculture and other sources. The data were collected from the respondents about their annual family income and based on that, they were categorized into five groups.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up to `1,00,000</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td><code>1,00,001 to </code>2,00,000</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td><code>2,00,001 to </code>3,00,000</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td><code>3,00,001 to </code>4,00,000</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Above `4,00,000</td>
<td>5</td>
</tr>
</tbody>
</table>

3.5.2.7 Occupation

It is operationally defined as a means of lively hood or profession of the rural youth and/or his family. The data in this regard were sought from rural youth and on that basis; they were grouped in to different occupational categories and assigned scores as shown below.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Occupation</th>
<th>Score assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture + Animal husbandry</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Agriculture + Animal husbandry + Business</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Agriculture + Animal husbandry</td>
<td>4</td>
</tr>
</tbody>
</table>
3.5.2.8 Extension contact

Extension contact of the rural youths was measured considering their frequency of contact with the different extension personnel and agencies. The possible score that could be obtained by the rural youth as per the structured schedule ranged from 0 to 14; on the basis of which, the rural youth were arbitrarily classified as under.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>0 to 2</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>3 to 5</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>6 to 8</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>9 to 11</td>
</tr>
<tr>
<td>5</td>
<td>Very high</td>
<td>12 to 14</td>
</tr>
</tbody>
</table>

3.5.2.9 Economic motivation

Economic motivation of rural youths was measured with the help of scale developed by Supe (1969) with due modification. The responses of the respondents were obtained against each item in terms of their agreement or disagreement with statement on five point continuum ranging from strongly agree to strongly disagree. Statement number 1, 2, 3, 4 were positive and rest 5 and 6 were negative (Appendix). The positive and negative statements were scored as below:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
</table>

33
Economic motivation score of an individual respondent was the sum total of score of all statements included in the scale which ranged from 6 to 30. On the basis of actual score obtained by the rural youth, they were arbitrarily grouped under following categories.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>6 to 10</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>11 to 15</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>16 to 20</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>21 to 25</td>
</tr>
<tr>
<td>5</td>
<td>Very high</td>
<td>26 to 30</td>
</tr>
</tbody>
</table>

### 3.5.2.9 Risk orientation

It is the degree of willingness of rural youths to take risk in farming. For measuring risk orientation, scale developed by Patel (2009) was used with slight modifications. The agreement or disagreement of the rural youths was measured against each statement with the scoring system as shown below.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The total obtainable score by the rural youth ranged from 9 to 45. The rural youths were then classified into following five categories on arbitrary basis.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>9 to 16</td>
</tr>
</tbody>
</table>
Research Methodology

<table>
<thead>
<tr>
<th></th>
<th>Category</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Low</td>
<td>17 to 23</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>24 to 31</td>
</tr>
<tr>
<td>4</td>
<td>High</td>
<td>32 to 38</td>
</tr>
<tr>
<td>5</td>
<td>Very high</td>
<td>39 to 45</td>
</tr>
</tbody>
</table>

3.5.2.10 Scientific orientation

It is characterized by a belief in science and scientific approach to solve the problems in farming. It was measured with the help of scale developed by Patel (2009) with due modifications.

The responses from the respondents were obtained against each item in terms of their agreement or disagreement with statement. There were six statements in the scale. The positive and negative statements were scored as follow.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Negative</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The possible score that could be obtained by the rural youth ranged from 13 to 65. The rural youth were then arbitrarily classified in to five categories as under.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category</th>
<th>Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low</td>
<td>13 to 22</td>
</tr>
<tr>
<td>2</td>
<td>Low</td>
<td>23 to 33</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>34 to 44</td>
</tr>
</tbody>
</table>
3.5.3 Measurement of constraints faced by the rural youth

Constraints mean the difficulties or restraints faced by rural youth in the way of adopting agriculture as an occupation. For ascertaining the constraints, rural youth were asked open ended question to state the difficulties faced by them in adopting agriculture as an occupation. The intensity of each constraint was computed in percentage according to the frequency of the rural youth against the constraints and finally the rank was assigned on the basis of the percentage.

3.5.4 Suggestions to overcome the constrains experienced by the respondents

Considering the constraints faced by the respondents and to overcome the same in adoption of Agriculture as an occupation successfully, they were asked to give their valuable suggestions. The suggestions offered were ranked on the basis of number and percentage of respondents who reported respective suggestions.

3.6 CONSTRUCTION AND PRE-TESTING OF INTERVIEW SCHEDULE:

The interview schedule was constructed in such a manner that all pertinent aspects in light of the objectives got covered. It is given in Appendix. In preparing the interview schedule, the investigator used available literature and also secured guidance from major guide, advisory committee and staff members Extension Education discipline.
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The pre-testing of interview schedule was carried out by interviewing ten non-sampled respondents. At the time of pre-testing, the purpose of interview and study was explained to the respondents. On the basis of pre-testing, necessary modifications were made in the final draft of interview schedule.

3.7 METHOD OF DATA COLLECTION:

The data of this study were collected by arranging personal interview with 100 rural youth of two selected talukas during the month of January, 2013. The rural youth were contacted personally at their residence or at their work place in an informal way. Before interview, the aims and objectives of the study were explained to them by the investigator to obtain whole-hearted and correct answers from them.

Every possible effort was made to maintain friendly atmosphere to get unbiased responses from respondents. The questions from interview schedule were asked one by one and their responses were recorded on the spot.

3.8 STATISTICAL FRAME WORK FOR ANALYSIS OF DATA

The data were classified, tabulated and analyzed in order to make the findings meaningful for interpretation and drawing inferences. For this, different statistical methods/tools were used as stated below.

3.8.1 Frequency and percentage:

Simple comparisons were made on the basis of frequency and percentage.

3.8.2 Arithmetic mean:

These estimates were used for classification of the respondents into different categories. The mean was obtained by dividing total
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score by the number of respondents. Mean was calculated by using the following formula:

\[ \bar{X} = \frac{\sum X_i}{n} \]

Where,

- \( \bar{X} \) = Mean
- \( n \) = Number of respondents
- \( X_i \) = Value of the \( i^{th} \) respondent

### 3.8.3 Coefficient of correlation (r):

Coefficient of correlation was calculated to find out the relationship between each of the independent variables and dependent variable. The correlation coefficient gives two kinds of information (i) indication of the magnitude of the relationship and (ii) information about the direction of the relationship (whether positive or negative). It can be denoted by:

\[
 r = \frac{\sum XY - \frac{\sum X \sum Y}{n}}{\sqrt{\left[ \sum X^2 - \frac{\left( \sum X \right)^2}{n} \right] \left[ \sum Y^2 - \frac{\left( \sum Y \right)^2}{n} \right]}}
\]

Where,

- \( r \) = Correlation coefficient
- \( \Sigma \) = Summation
- \( X \) = Independent variable
- \( Y \) = Dependent variable
- \( n \) = Total number of respondents

### 3.8.4 Step-wise regression analysis

The step-wise regression (multiple regressions) analysis was employed to predict the extent of interpersonal conflict and consequences by independent variables. In the stepwise method, the
**Research Methodology**

Regression analysis was started with regression of $y$ and $x_i, \ldots, x_k$ taken singly. The variable giving the highest accountability in sum of squares of $y$ is first selected. The bivariate regression in which $x_i$ appeared were worked out. The variate which gives the highest additional accountability in sum of squares in $y$ after fitting $x_i$ variable was selected. All the trivariate regression that includes both $x_1$ and $x_2$ were computed. The analysis was continued till the last variate of which additional contribution was the least of all variables.

The prediction equation used as:

$$y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + \ldots + b_k x_k$$

Where,

- $y$ = Dependent variable
- $a$ = Intercept
- $b_1, \ldots, b_k$ = Partial regression co-efficient of respective independent variable.
- $x_1, \ldots, x_k$ = Independent variable

After the regression equation, the 'F' values for partial regression co-efficient were tested for their significance.

### 3.8.5 Standard Partial regression co-efficient

The various independent variables had their own unit of measurement which did not permit a comparison of the partial regression co-efficient ($b_{yi,j}$) value. To facilitate comparison, the partial regression co-efficient ($b_{yi,j}$) values were converted in to standard partial regression co-efficient ($b'yi,j$) values which were free from the units of measurements. In order to assign the rank to various selected independent variables, the standard partial regression co-efficient was used. It was calculated by using the following formula (Snedecor and Cochran, 1967).
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\[ b'y_{i,j} = \frac{by_{i,j} \times \text{SD of independent variable}}{\text{SD of dependent variable}} \]

Where,

- \( b'y_{i,j} \) = Standard partial regression Co-efficient
- \( by_{i,j} \) = Partial regression Co-efficient (byi.j)

A comparison of any two standard partial regressions coefficients indicates the relative importance of the independent variables involved in predicting the rational behaviour. The significance of the partial regression coefficient was tested by "t" statistic.

3.8.6 Path analysis

To know the direct and indirect effect of independent factors of respondent employees on their extent of interpersonal conflict, the method of path coefficient analysis (Wright, 1921) was employed. Path coefficient technique is an extension of the technique of standard partial regression coefficient. Path effects were obtained by solving the simultaneous equations set up for the purpose using the correlation matrix. Considering one variable 1 to be influencing other variable '1' the simultaneous equation would be:

\[
\rho y_{x_i} = \rho y_{x_i} + \sum_{i=1}^{n} \rho x_i x_j \times \rho y_{x_j}
\]

For \( i = 1, 2, 3 \ldots \ldots \ n \)

Where,

- \( \rho y_{x_i} \) = Correlation coefficient of \( x_i \) with \( y \)
- \( \rho y_{x_i} \) = Direct effect
Research Methodology

\[ \sum_{i=1}^{n} r_{x_i x_j} \times \rho_{y x_j} = \text{Indirect effect of independent variable to dependent variable via another independent variable.} \]

3.9 Conceptual model

The conceptual frame work given in the preceding section may be presented paradigmatic which has been developed during the course of study. The model shown in Fig. 4 is tentative and generalized. The final form of such model has been suggested at the end of this dissertation in the chapter "summary and conclusion". Where the investigation would yield information regarding the influence of independent variables on the dependent variable.
IV. RESULTS AND DISCUSSION

This chapter presents the objective wise findings of the study. Keeping in view of the objectives of the study, information was collected from the respondents, classified, tabulated, analyzed and presented in a systematic way as per following heads:

4.1 Profile of rural youth.

4.2 Development of scale to measure attitude of rural youth towards agriculture as an occupation.

4.3 Attitude of rural youth towards agriculture as an occupation.

4.4 Relationship between profile of rural youth and their attitude towards agriculture as an occupation.

4.5 Constraints faced by the rural youth in adopting agriculture as an occupation.

4.6 Suggestions from the rural youth to overcome such constraints faced by them.

4.1 Profile of rural youth.

To identify the profile of rural youth was one of the objectives of the present study. On the basis of review of literature, some of the important personal, social, economical, communicational and psychological characteristics of the rural youth were selected and studied. The findings have been tabulated, analyzed and presented in following subsequent pages.

4.1.1 Education

Generally, it is believed that formal education opens mental horizon of an individual and helps in promoting analytical thinking which leads to develop attitude towards subjects or objects.
Result and Discussion

Considering this aspect, the formal education of rural youth was studied and data in this regards are presented in Table 2 and graphically depicted in Fig. 5.

Table 2: Distribution of respondents according to their level of education

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Education</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Illiterate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2.</td>
<td>Primary School (up to 7th)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>Secondary School (8th to 10th)</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>4.</td>
<td>Higher secondary (11th to 12th)</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>5.</td>
<td>Graduate and above</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

The data presented in the Table 2 revealed that less than half (46.00 per cent) of the rural youth had higher secondary level of education followed by slightly more than one fourth (26.00 per cent) and one fifth (20.00 per cent) of them who had graduate and above level of education and secondary level of education, respectively. Only 8.00 per cent of rural youth had primary education. Not a single rural youth was found illiterate.

The probable reasons for higher literacy among the rural youth might be realization of the significance of education among them to shape and develop their lives and availability of educational facilities in rural area.

The results of the study were partially corroborated with the findings of Bhosale (2010).

4.1.2 Size of family
Result and Discussion

The size of family is also an important social variable, which can play important role in attitudinal change of an individual as healthy interaction among the family members about the subject may clear their ambiguity and hence thoughts and actions of the individual members are governed by the family as a single unit. Hence, the family size of the respondents was studied the data of which are presented in Table 3 and graphically depicted in Fig. 6.

Table 3: Distribution of respondents according to their size of family

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Size of Family</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small size of family (up to 4)</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>2</td>
<td>Large size of family (above 4)</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

The data presented in table 3 show that exactly two third (66.00 per cent) of rural youth belonged to large sized family and rest 34.00 per cent of rural youth had small size of family.

The probable reasons might be: 1. The respondents i.e. rural youth were younger in age and were on the doorstep of initiating married life or were not even married also. Hence they were more oriented to stay with their parents and elder brothers. 2. Joint family system is still dominant in rural area.

This finding is in conformity with that reported by Bhosale (2010) and Mankar et al. (2000).

4.1.3 Caste

Caste of individual is an important determinant in shaping attitude towards agriculture as an occupation. Hence, the cast of the respondents was studied and data are presented in Table 4 and graphically depicted in Fig. 7.
Result and Discussion

Table 4: Distribution of respondents according to their caste

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Caste</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Schedule Tribe</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Schedule caste</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>Other back ward caste</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>4</td>
<td>General</td>
<td>52</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

The perusal of data presented in Table 4 reveals that more than half (52.00 per cent) of rural youth belonged to general caste, while 27.00 per cent, 12.00 per cent and 9.00 per cent of the rural youth were from other back ward caste, schedule caste and schedule tribe, respectively. Thus it can be concluded that about four fifth (79.00 per cent) of rural youth were from general to other back ward caste. The keen observation shows that the data with little deviation follow the distribution of reservation percentage among different caste categories as per government rules. It means the population in the study area is more or less distributed among different castes as per the reservation policy of government.

The results of the study are partially supported by the findings of Kosambi (1997) and Patel (2005b).

4.1.4 Social participation

Social participation denotes participation of respondents in different social organizations. Those who have wider social participation are likely to have more community-orientation, knowledge and resourcefulness which in turn may affect on shaping their attitude towards agriculture as an occupation. With this in view,
**Result and Discussion**

Social participation of the respondents was studied and data are presented in Table 5 and graphically depicted in Fig. 8.

**Table 5: Distribution of respondents according to their level of social participation**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Social participation</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Membership</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>2</td>
<td>Membership in one organization</td>
<td>54</td>
<td>54</td>
</tr>
<tr>
<td>3</td>
<td>Membership in more than one organizations</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>Membership along with position holding</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

The data presented in Table 5 show that more than half (54.00 per cent) of the rural youth had membership in one organization, while 23.00 per cent of them had membership in more than one organizations. Further, 16.00 per cent of rural youth had no membership in any organization, while 7.00 per cent of them were position holders along with membership.

The data obtained from above table lead to conclude that majority of the respondents had membership in any one social organization. During field survey it was observed that majority of rural youth were members in milk co-operative society of AMUL network.

This finding has been supported by the findings of Bhosle (2010) and partially supported by the finding of Patel (2006).

**4.1.5 Land holding**

Land is a prime requirement for agriculture and land holding is one of the most important contributors to assess one's socio-economic
status. Thus, land holding may influence on attitude of rural youth for adopting agriculture as an occupation. Keeping this in view, information on land holding of the rural youth was collected the data of which are presented in Table 6 and graphically depicted in Fig. 9.

Table 6: Distribution of respondents according to their land holding

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Land holding</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marginal (up to 1.00 ha)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Small (1.1 ha to 2.00 ha)</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>Medium (2.1 ha to 4.00 ha)</td>
<td>53</td>
<td>53</td>
</tr>
<tr>
<td>4</td>
<td>Large (above to 4.00 ha)</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>

It is obvious from the data presented in Table 6 that more than half (53.00 per cent) of the rural youth possessed medium size of land holding, whereas 25.00 per cent and 16.00 per cent of them possessed large and small size of land holding, respectively. Only 6.00 per cent of them possessed marginal size of land holding.

Thus, it can be concluded that 78.00 per cent of the rural youth were land holders of medium to large size. The probable reason might to be that majority of the rural youth were from joint family. Further, the average land holding of farmers in selected talukas i.e. Tarapur and Khambhat is larger than that of farmers of other talukas of Anand district.

This finding is contradicted to the findings of Toppo (2005), Sajjan (2006), Uddin et.al. (2008), Deshmukh et al. (2009) and Bhsole (2010).

4.1.6 Annual income
Result and Discussion

Timely and required inputs are essential to have agriculture as a profitable occupation. In this context, annual income becomes an important factor which determines the attitude of an individual towards agriculture as an occupation. The data regarding the annual income of the rural youth are presented in Table 7 and graphically depicted in Fig. 10.

Table 7: Distribution of respondents according to their annual income

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of annual income</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Up to `1,00,000</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td><code>1,00,001 to </code>2,00,000</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>3</td>
<td><code>2,00,001 to </code>3,00,000</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>4</td>
<td><code>3,00,001 to </code>4,00,000</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>Above `4,00,000</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Table 7 shows that slightly less than two fifth (39.00 per cent) of the rural youth had annual income ranging from `2,00,001 to `3,00,000, followed by 24.00 per cent, 17.00 per cent and 11.00 per cent with `1,00,001 to `2,00,000, `3,00,001 to `4,00,000 and up to `1,00,000 annual income, respectively. Only 9.00 per cent of rural youth had above `4,00,000 annual income. Thus it can be concluded that majority (63.00 per cent) of rural youth had `1,00,001 to `3,00,000 of annual income.

Majority of rural youth had medium to large size of land holding, which might be the probable reason for their comparatively higher annual income.
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This finding is in conformity with the findings of Sajjan (2006) and Uddin et al. (2008).

4.1.7 Occupation

It is quite obvious that the parental occupation with which an individual is familiar and/or united since the child hood plays an important role in forming favorable or unfavorable attitude in him towards that particular occupation. With this in view, the occupation of the rural youth and/or his family was studied. The data in this regard are presented in Table 8 and graphically depicted in Fig. 11.

It is obvious from the data presented in Table 8 that majority (66.00 per cent) of the rural youth were engaged in agriculture + animal husbandry occupation while, 11.00 per cent of them were dependant on agriculture only followed by 9.00 per cent and 6.00 per cent of them who were engaged in agriculture + animal husbandry + business and agriculture + animal husbandry + service, respectively. The rural youth who were dependant on only animal husbandry, other occupation and only service were 3.00 per cent, 3.00 per cent and 2.00 per cent, respectively. It means agriculture along with animal husbandry was the major occupation in case of majority (more than four-fifth) of rural youth in the study area.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Occupation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>Agriculture + Animal husbandry</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>3</td>
<td>Agriculture + Animal husbandry</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 8: Distribution of respondents according to their occupation n=100
As discussed earlier, the land holding in case of majority of rural youth was medium to large which is the obvious cause for agriculture to be major occupation. Further, animal husbandry goes side by side agriculture and particularly in Anand district, there is the strong net work of AMUL which inspires the rural families to keep milch animals and earn more. These are the probable reasons for their major occupation to be agriculture along with animal husbandry.

This finding is more or less similar to findings of Singh (2007) and Bhosale (2010).

4.1.8 Extension contact

Extension contact refers to the frequencies of contact made by the rural youth with different extension agencies or extension workers, either local or outside the village. Through the extension contact, the rural youth may come to know many new things about agriculture which may influence in shaping his attitude towards agriculture. Keeping this in view, this variable was studied the data in regards of which are presented in Table 9 and graphically depicted in Fig. 12.

Table 9: Distribution of respondents according to their extension contact

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Category of Extension</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Agriculture + Animal husbandry + Service</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Animal husbandry</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>Only service</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Any other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>
It is observed from Table 9 that more than half (55.00 per cent) of the rural youth had medium level of extension contact, while each 17.00 per cent and 13.00 per cent of them had high and low level of extension contact. Only 8.00 per cent and 7.00 per cent of rural youth had very low and very high extension contact, respectively.

It can thus be conclude that majority (72.00 per cent) of the rural youth had medium to high level of extension contact.

The probable reason for above finding might be higher education and active involvement of rural youth in social organizations that motivate the rural youth to participate in extension activities organized by government and private extension agencies.

This finding is similar to the results reported by Uddin et.al. (2008) and Bhosale (2010).

4.1.9 Economic motivation

It is obvious that economically motivated rural youth are more oriented towards maximization of profit from farming. They may consider farming as an enterprise and therefore, they might have better contacts with information generating centers as well as extension agencies to seek specific knowledge of agricultural technology and use it properly. Thus, the economic motivation is an important characteristic of the rural youth, the data in regards of which are depicted in Table 10 and graphically depicted in Fig. 13.
Table 10: Distribution of respondents according to their economic motivation

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Economic motivation</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low (6 to 10)</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Low (11 to 15)</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Medium (16 to 20)</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>4</td>
<td>High (21 to 25)</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>5</td>
<td>Very high (26 to 30)</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>100</td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

Table 10 shows that slightly more than two fifth (42.00 per cent) of the rural youth had medium economic motivation, while nearly one fourth (24.00 per cent) of rural youth were found to have high economic motivation followed by 15.00 per cent, 12.00 per cent and 7.00 per cent of them with low, very high and very low economic motivation, respectively.

It can be inferred that majority (66.00 per cent) of the rural youth had medium to high level of economic motivation.

The selected respondents for the study were rural youth who were on the door step of initiating their social life. Further, youth is such a stage of life which is full of zeal, vigor and ambition to earn more and more. In addition to these, education, land holding, extension contact etc. were also higher among rural youth. These all together might have resulted in higher level of economic motivation among rural youth.

This finding is similar to results of Sajjan (2006) and Bhosale (2010).
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4.1.10 Risk orientation

Risk orientation is the degree of willingness of rural youth to take calculated risk in farming. When an individual takes risk for a particular thing, but fails to achieve expected result, it may develop negative attitude in him for that particular thing and vice versa. Thus, risk orientation plays important role in shaping attitude of rural youth towards agriculture. The data regarding risk orientation of rural youth are presented in Table 11 and graphically depicted in Fig. 14.

Table 11: Distribution of respondents according to their risk orientation

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Risk orientation</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low (9 to 16)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>Low (17 to 23)</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Medium (24 to 31)</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>4</td>
<td>High (32 to 38)</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>5</td>
<td>Very high (39 to 45)</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

A perusal of Table 11 reveals that 60.00 per cent of the rural youth had medium risk orientation, while 13.00 per cent and 12.00 per cent of them had high and very high risk orientation, respectively. Only 9.00 per cent and 6.00 per cent of the rural youth had low and very low risk orientation, respectively. Thus, it can be concluded that majority (85.00 per cent) of the rural youth had medium to very high risk orientation.

It is quite natural that the rural youth who are more economically oriented with comparatively higher level of education, annual income, land holding and extension contact are more likely to take calculated risk in farming.

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This finding is in conformity with the findings of Marali and Jhamtani (2003) and Patel (2006).

4.1.11 Scientific orientation

This is characterized by a belief in science and scientific approaches to solve the problems in farming. It is true that scientifically oriented rural youth are always inclined to use scientific methods in farming and have a favorable attitude towards profession. The data regarding scientific orientation of the respondents are presented in Table 12 and graphically depicted in Fig. 15.

Table 12: Distribution of respondents according to their scientific orientation

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Category of Scientific orientation</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very low (13 to 23)</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Low (24 to 33)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Medium (34 to 45)</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>4</td>
<td>High (46 to 55)</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>5</td>
<td>Very high (56 to 65)</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>100</strong></td>
<td><strong>100.00</strong></td>
</tr>
</tbody>
</table>

It is obvious from the data presented in Table 12 that 46.00 per cent of the rural youth had medium level of scientific orientation, while 30.00 per cent and 11.00 per cent of the rural youth had high and very high level of scientific orientation, respectively. Only 8.00 per cent and 5.00 per cent of them had low and very low scientific orientation, respectively.

Thus, it can be concluded that 76.00 per cent of the rural youth were medium to high risk oriented.

The higher level of scientific orientation among rural youth might be the combined effect of their higher level of education, social...
participation, annual income, land holding, economic motivation and risk orientation.

This finding has been supported by the findings of Patel (2005a) and Bhosle (2010).

4.2 Development of scale to measure attitude of rural youth towards agriculture as an occupation

To measure the degree of positive or negative feelings of the rural youth towards agriculture as an occupation, a scale was developed by adopting systematic methodology. Among the techniques available, researcher had selected ‘Scale product method’ which combines the Turnstone’s technique of equal appearing interval scale (1928) for selection of items and Likert’s technique of summated rating (1932) for ascertaining the response on the scale as proposed by Eysenck and Crown (1949). The procedure to develop a scale has already been explained in the third chapter.

However, the procedure to select final statements to measure attitude of rural youth towards agriculture as an occupation has been described here with example and finally, the selected statements have also been given.

4.2.1 Procedure to select final statement to measure attitude

The data from the 50 judges were arranged in the form as shown in Table 13. The table shows the frequency distribution of judgments made by the judges for the statement No.20 on five categories.

Table 13: Frequency of the distribution of judgment made by judges on five categories for Statement No. 20.
Result and Discussion

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Distribution of the judgment for the statement</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly agree I II II II II II II II II II II II</td>
<td>12</td>
</tr>
<tr>
<td>2</td>
<td>Agree I II II II II II II II II II II II II I</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>Undecided I II II II II I I I</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>Disagree II</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Strongly disagree I</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

As shown in Table 14, three rows are used for each statement. The first row gives the frequency (f) with which the statement was placed in each of the five categories. The second row gives these frequencies as proportions (p). The proportions are obtained by dividing each frequency by n i.e. the total number of the judges (here it is 50). The third row gives the cumulative proportions (cp), that is the proportion of the judgments in a given category plus the sum of all the proportions below the categories.

**Table 14: Summary of judgments made by judges on five categories for statement No. 20.**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Sorting categories</th>
<th>Scale value</th>
<th>Q Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>12 21 14 2 1</td>
<td>2.119</td>
<td>1.083</td>
</tr>
<tr>
<td>P</td>
<td>0.24 0.42 0.28 0.04 0.02</td>
<td>2.119</td>
<td>1.083</td>
</tr>
<tr>
<td>Cp</td>
<td>0.24 0.66 0.94 0.98 1</td>
<td>2.119</td>
<td>1.083</td>
</tr>
</tbody>
</table>

If the median of the distribution of the judgment for each statement is taken as the scale value of the statement, than the scale values can be found from the data arranged in the number of the Table 14 by means of the following formula.
Result and Discussion

\[
S = L + \frac{0.50 - \sum Pb}{Pw} \times i
\]

Substituting in the above formula to find out the scale value for the statement number 20 in Table 14, we have

\[
S = 1.5 + \frac{0.50 - 0.24}{0.42} \times 1
\]

\[= 1.5 + 0.619\]

\[= 2.119\]

(The interval represented by the number assigned to the given category is assumed to range from 0.5 of a unit below to 0.50 of a unit above the assigned number. Thus lower limit of the interval represented by the category assigned the number 2 is 1.5 and the upper limit is 2.5).

The scale value can be found in the same manner for the other statements.

Thurstone and Chave (Edwards, 1957) used the inter-quartile range \(Q\) as a means of the variation of the distribution of the judgments for a given statement. To determine value of \(Q\), two other point were measured, the 75\(^{th}\) centile and 25\(^{th}\) centile. The 25\(^{th}\) centile was obtained by the formula.

\[
C_{25} = L + \frac{0.25 - \sum Pb}{Pw} \times i
\]

Where,

\[C_{25}\] = The median or scale value of the statement

\[L\] = The Lower limit of the interval in which the 25th centile falls

\[Pb\] = The sum of the proportion below the interval in which the 25\(^{th}\) centile falls

\[Pw\] = The proportion within the interval in which the 25\(^{th}\) centile falls

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\( i \) = The width of the interval and is assumed to be equal to 1.0 (one).

For the statement number 20 in Table 14 we have

\[
C_{75} = L + \frac{0.75 - \sum Pb}{Pw} \times i
\]

\[
= 1.5 + \frac{0.75 - 0.24}{0.42} \times 1
\]

\[
= 1.5 + 0.238
\]

\( C_{25} = 1.738 \)

75\textsuperscript{th} centile was obtained by the following formula.

\[
C_{75} = L + \frac{0.75 - \sum Pb}{Pw} \times i
\]

Where,

\( C_{75} \) = The median or scale value of the statement

\( L \) = The Lower limit of the interval in which the 75\textsuperscript{th} centile falls

\( Pb \) = The sum of the proportion below the interval in which the 75\textsuperscript{th} centile falls

\( Pw \) = The proportion within the interval in which the 75\textsuperscript{th} centile falls

\( i \) = The width of the interval and is assumed to be equal to 1.0 (one).

For the statement number 20 in Table 14 we have,

\[
C_{75} = L + \frac{0.75 - \sum Pb}{Pw} \times i
\]

\[
= 2.5 + \frac{0.75 - 0.66}{0.28} \times 1
\]

\[
= 2.5 + 0.321
\]

\( C_{75} = 2.821 \)
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Then the interquartile range would be given by taking the difference between C75 and C25, thus,

\[ Q = C75 - C25 \]

Substituting the values

\[ Q = 2.281 - 1.738 \]

\[ = 1.083 \]

In this manner the interquartile range (Q) for each statement was worked out for determinations of ambiguity involved in the statements. Only those statements were selected whose median values were greater than Q value. In case of statement 20, S = 2.11 and Q = 1.08 Hence the statement number twenty was selected.

Thurstone and Chave (Edward, 1957) described another criteria in addition to Q as a basis for rejecting statement in scales constructed by the method of the equal appearing interval. Accordingly when a few statements had the same scale values, the statement having lowest Q values were selected. To understand this procedure, we can examine the statements for the scale in Table 15. The statements have been arranged as per ascending scale value.

Table 15: Method of selecting the statements for the scale based on scale value and inter quartile range.

<table>
<thead>
<tr>
<th>STATEMENT NO.</th>
<th>SCALE VALUE (S)</th>
<th>QUARTILE VALUE (Q)</th>
<th>SELECTED/ NOT SELECTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.75</td>
<td>1.08</td>
<td>Selected</td>
</tr>
<tr>
<td>15</td>
<td>1.75</td>
<td>2.54</td>
<td>Non-Selected</td>
</tr>
<tr>
<td>9</td>
<td>1.50</td>
<td>1.46</td>
<td>Non-Selected</td>
</tr>
<tr>
<td>11</td>
<td>1.50</td>
<td>1.11</td>
<td>Selected</td>
</tr>
<tr>
<td>14</td>
<td>1.57</td>
<td>1.61</td>
<td>Non-Selected</td>
</tr>
<tr>
<td>2</td>
<td>2.36</td>
<td>2.81</td>
<td>Non-Selected</td>
</tr>
</tbody>
</table>
### Table 16: Selected statements for research study

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Statements</th>
<th>S</th>
<th>A</th>
<th>UDA</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel that Agriculture is an effective occupation to earn more money from agricultural land.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>I think that Agriculture is an effective way to utilize natural resources.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I feel that Agriculture is the best occupation for rural youth.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Agriculture is the best way of earning money using creativity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Agriculture makes the person bankrupt.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I prefer Agriculture as an occupation.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>I feel that Agriculture is not</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. I avoid Agriculture as it a tedious job.
9. Agriculture can provide sustainable livelihood to rural youth.
10. It is better to do job with less salary then to adopt agriculture as an occupation.
11. I feel pride to engage in agriculture occupation.
12. I feel sorry for those who abandon agriculture and migrate to cities for a small job.
13. Agriculture is our ancestral occupation and I would like to continue it.
14. Village can't prosper unless rural youth adopt agriculture occupation.

SA = Strongly Agree, A = Agree, UD = Undecided,
D = Disagree, SD = Strongly Disagree

4.2.5 Final statement for attitude scale

When there was a good agreement among the judges, in judging the degree of agreement or disagreement of a statement, Q was smaller compared to the scale value obtained. Thus, only those statements were selected whose median (scale) values were greater than Q values. However, when a few statements had the more or less similar scale values, statements having lowest Q value were selected. Based on the median and Q values, 14 statements numbering 1,3,5,7,8,11,12,17,18,19,20,22,23 and 25 of the original list were finally selected to constitute attitude scale.

4.2.6 Administration of the scale

The selected 14 statements for the final format of the attitude scale were randomly arranged to avoid response biases, which might


**Result and Discussion**

contribute to low reliability and detraction from validity of the scale. Out of the 14 selected statements, five statements were the indicators of the unfavorable attitude and seven statements were the indicators of favorable attitude. Against these 14 statements, there were five columns representing five points continuum of agreement and disagreement to the statements as followed by Likert (1932) in his summated rating technique of attitude measurement. The five points on continuum were strongly agree, agree, undecided, disagree and strongly disagree with respective weights of 5, 4, 3, 2, and 1 for the favorable statements and with the respective weights of 1, 2, 3, 4 and 5 for the unfavorable statements. The weights of Likert’s technique and the scale value of Thurston’s technique were combined in the form of a product and the total score for an individual was the sum of the product.

4.2.7 Reliability of the scale

A scale is reliable if it consistently produces the same results when applied to the same sample. In the present study, split-half method of testing reliability was used because of limited time and resources available to the researcher.

The 14 statements were divided into two halves with 7 odd numbered in one half and 7 even-numbered statements in the other. These were administered to 20 respondents. Each of the two sets of statements was treated as a separate scale and then these two sub-scales were correlated. The co-efficient of reliability was calculated by the Rulon’s formula (Guilford, 1954), which came to 0.79. Thus, the scale developed was found highly reliable. To understand this procedure, we can examine the statements for the scale in Table 17.

**Table 17: Reliability of scale**
Result and Discussion

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Score of odd State.</th>
<th>Score of Even State.</th>
<th>d (X₀ - Xₑ)</th>
<th>d²</th>
<th>T (X₀ + Xₑ)</th>
<th>t²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>23</td>
<td>21</td>
<td>2</td>
<td>4</td>
<td>44</td>
<td>1936</td>
</tr>
<tr>
<td>2</td>
<td>27</td>
<td>20</td>
<td>7</td>
<td>49</td>
<td>47</td>
<td>2209</td>
</tr>
<tr>
<td>3</td>
<td>25</td>
<td>21</td>
<td>4</td>
<td>16</td>
<td>46</td>
<td>2116</td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>29</td>
<td>3</td>
<td>9</td>
<td>61</td>
<td>3721</td>
</tr>
<tr>
<td>5</td>
<td>26</td>
<td>28</td>
<td>-2</td>
<td>4</td>
<td>54</td>
<td>2916</td>
</tr>
<tr>
<td>6</td>
<td>27</td>
<td>30</td>
<td>-3</td>
<td>9</td>
<td>57</td>
<td>3249</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>49</td>
<td>2401</td>
</tr>
<tr>
<td>8</td>
<td>26</td>
<td>29</td>
<td>-3</td>
<td>9</td>
<td>55</td>
<td>3025</td>
</tr>
<tr>
<td>9</td>
<td>28</td>
<td>30</td>
<td>-2</td>
<td>4</td>
<td>58</td>
<td>3364</td>
</tr>
<tr>
<td>10</td>
<td>21</td>
<td>19</td>
<td>2</td>
<td>4</td>
<td>40</td>
<td>1600</td>
</tr>
<tr>
<td>11</td>
<td>22</td>
<td>26</td>
<td>-3</td>
<td>9</td>
<td>48</td>
<td>2304</td>
</tr>
<tr>
<td>12</td>
<td>25</td>
<td>24</td>
<td>1</td>
<td>1</td>
<td>49</td>
<td>2401</td>
</tr>
<tr>
<td>13</td>
<td>26</td>
<td>24</td>
<td>2</td>
<td>4</td>
<td>50</td>
<td>2500</td>
</tr>
<tr>
<td>14</td>
<td>24</td>
<td>26</td>
<td>-2</td>
<td>4</td>
<td>50</td>
<td>2500</td>
</tr>
<tr>
<td>15</td>
<td>27</td>
<td>27</td>
<td>0</td>
<td>0</td>
<td>54</td>
<td>2916</td>
</tr>
<tr>
<td>16</td>
<td>21</td>
<td>18</td>
<td>3</td>
<td>9</td>
<td>39</td>
<td>1521</td>
</tr>
<tr>
<td>17</td>
<td>24</td>
<td>27</td>
<td>-3</td>
<td>9</td>
<td>51</td>
<td>2601</td>
</tr>
<tr>
<td>18</td>
<td>26</td>
<td>28</td>
<td>-2</td>
<td>4</td>
<td>54</td>
<td>2916</td>
</tr>
<tr>
<td>19</td>
<td>29</td>
<td>30</td>
<td>-1</td>
<td>1</td>
<td>59</td>
<td>3481</td>
</tr>
<tr>
<td>20</td>
<td>25</td>
<td>27</td>
<td>-2</td>
<td>4</td>
<td>52</td>
<td>2704</td>
</tr>
<tr>
<td>Total</td>
<td>509</td>
<td>508</td>
<td>2</td>
<td>154</td>
<td>1017</td>
<td>52381</td>
</tr>
</tbody>
</table>

Rulon's Formula:

\[
rtt = 1 - \frac{\sigma^2_d}{\sigma^2_t}
\]

Where:

\[
\sigma^2_d = \frac{\sum d^2 - \frac{(\sum d)^2}{20}}{20}
\]

\[
\sigma^2_t = \frac{\sum t^2 - \frac{(\sum t)^2}{20}}{20}
\]
\section*{Result and Discussion}

Calculation:

$\sum d = -6$

$\sum d^2 = 158$

$t = 1024$

$\sum t^2 = 53174$

$N = 20$

$\sigma^2 d = \frac{\sum d^2 - (\sum d)^2}{20}$

$= \frac{158 - 36}{20}$

$= \frac{122}{20}$

$= 6.1$

$= 7.81$

$\sigma^2 t = \frac{\sum t^2 - (\sum t)^2}{20}$

$= \frac{53174 - (1024)^2}{20}$

$= \frac{53174 - 1048576}{20}$

$= \frac{-52428.8}{20}$

$= 745.2$

$= 37.26$

$r_{rt} = 1 - \frac{\sigma^2 d}{\sigma^2 t}$

$= 1 - \frac{7.81}{37.26}$

$= 1 - 0.21$

$= 0.79$
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4.2.8 Content validity of the scale

The validity of the scale was examined for content validity by determining how well the content of the scale is representative of the domain subject matter under study. Since as many items covering the subject matter under study as possible were selected by discussion with the experts, reviewing the literature and strict adherence to the judges' ratings, it was assumed that the scale has satisfactory content validity.

4.3 Attitude of rural youth towards agriculture as an occupation

To measure attitude of rural youth towards agriculture as an occupation, scale developed by research worker himself was applied. The data regarding attitude of the rural youth towards agriculture as an occupation are presented in arbitrary form in Table 18 and graphically depicted in Fig. 16.

Table 18: Distribution of the rural youth according to their attitude towards agriculture as an occupation

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Level of Attitude</th>
<th>Frequency</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Least Favorable (14 to 24)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Less Favorable (25 to 35)</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td>Moderately Favorable (36 to 48)</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>4</td>
<td>More Favorable (49 to 59)</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>Most Favorable (60 to 70)</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>100</td>
<td>100.00</td>
</tr>
</tbody>
</table>

The data given in Table 18 illustrated that more than half (55.00 per cent) of the rural youth had moderately favorable attitude towards agriculture as an occupation, while 23.00 per cent and 13.00 per cent...
of them had more favorable and most favorable attitude towards agriculture as an occupation, respectively. Only 6.00 per cent and 3.00 per cent of the rural youth had less favorable and least favorable attitude towards agriculture as an occupation, respectively.

From the foregoing discussion, it can be concluded that majority (78.00 per cent) of the rural youth had moderately favorable to more favorable attitude towards agriculture as an occupation.

The realization on part of rural youth that agriculture is the only major resort to sustain their lives and families might have made them more inclined towards agriculture to earn more. This might be the reason for higher level of favorable attitude among rural youth towards agriculture as an occupation.

The finding is similar to result of Sajjan (2006) and Uddin et al. (2008).

4.4 Relationship between profile of rural youth and their attitude towards agriculture as an occupation.

To ascertain the relationship between profile of rural youth and their attitude towards agriculture as an occupation, the co-efficient of correlation was worked out. Total eleven personal, social, economical, communicational and psychological characteristics of the rural youth were studied. The zero order correlations are presented in Table 19 and graphically depicted in Fig. 17 which, discussed under following subheads:

4.4.1 Education and attitude

The Table 19 reveals that there was non-significant correlation (r = 0.121NS) between education of the rural youth and their attitude towards agriculture as an occupation. Hence, the null hypothesis (Ho1) that “there is no relationship between education of the rural
youth and their attitude towards agriculture as an occupation” is accepted.

The rural youth, irrespective of the educational level, must have realized the significance of agriculture as the major resort for their livelihood. This might be the reason for non-significant association between education and attitude of rural youth towards agriculture as an occupation.

This result found contradicts to finding of Bhagheri and shahbazi (2003), Patel and Chauhan (2004), Patel (2005) and Olujide (2008).

Table 19: Relationship between profile of rural youth and their attitude towards agriculture as an occupation.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Independent Variables</th>
<th>Correlation-Coefficient ('r' value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Education</td>
<td>0.121 (NS)</td>
</tr>
<tr>
<td>2</td>
<td>Size of family</td>
<td>-0.383**</td>
</tr>
<tr>
<td>3</td>
<td>Cast</td>
<td>0.596**</td>
</tr>
<tr>
<td>4</td>
<td>Social participation</td>
<td>0.307**</td>
</tr>
<tr>
<td>5</td>
<td>Land holding</td>
<td>0.581**</td>
</tr>
<tr>
<td>6</td>
<td>Annual income</td>
<td>0.711**</td>
</tr>
<tr>
<td>7</td>
<td>Occupation</td>
<td>0.195 (NS)</td>
</tr>
<tr>
<td>8</td>
<td>Extension contact</td>
<td>0.818**</td>
</tr>
<tr>
<td>9</td>
<td>Economic motivation</td>
<td>0.727**</td>
</tr>
<tr>
<td>10</td>
<td>Risk orientation</td>
<td>0.769**</td>
</tr>
<tr>
<td>11</td>
<td>Scientific orientation</td>
<td>0.707**</td>
</tr>
</tbody>
</table>

NS = non significant at 0.05 level

** = significant at 0.01 level

4.4.2 Size of family and attitude

The data given in Table 19 illustrate that there was negative and highly significant correlation (r = -0.383**) between size of family and their attitude towards agriculture as an occupation. This provides
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sufficient ground to reject the null hypothesis (Ho2) that “there is no relationship between size of family of the rural youth and their attitude towards agriculture as an occupation”.

During the personal interview, it was revealed that in big sized family, there were generally more numbers of brothers which would lead to fragmentation of land holding. This might be the reason for less favorable attitude of rural youth towards agriculture as an occupation in the big sized family and vice versa.

It can thus be concluded that size of family had significant influence on attitude of rural youth towards agriculture as an occupation.

This finding is found contradicted to finding of Patel and Chauhan (2004), Kashem and Rashid (2005), Patel (2005) and Bite (2009).

4.4.3 Caste and attitude

It is apparent from the data presented in table 19 that there was a positive and highly significant correlation (r = 0.596**) between caste of rural youth and their attitude towards agriculture as an occupation, which indicates that cast influenced the attitude of rural youth and it was more favorable among rural youth of higher caste than other castes. It was observed in the study area that land holding was generally more with higher caste people, because of which their annual income was also more and this would have helped in forming more favorable attitude towards agriculture as an occupation among rural youth of higher (general) caste than other castes. Hence, the null hypothesis (Ho3) “There is no relationship between cast of the rural youth and their attitude towards agriculture as an occupation” is rejected.
Thus, it can be inferred that caste plays important role in forming attitude of rural youth towards agriculture as an occupation.

This finding is found similar to reported by Patel (2005a).

4.4.4 Social participation and attitude

A look in to the Table 19 makes it clear that social participation had positive and highly significant correlation ($r = 0.307^{**}$) with their attitude towards agriculture as an occupation. It means the rural youth with higher social participation had more favorable attitude towards agriculture as an occupation. Because of high social participation, interaction, experience sharing and exchange of ideas and information of rural youth with others might have increase which would have helped in cultivating more favorable attitude among rural youth towards agriculture as an occupation. So, null hypothesis (Ho4) that “there is no relationship between social participation of the rural youth and their attitude towards agriculture as an occupation” is rejected and it is concluded that social participation had vital role to play in shaping attitude of rural youth towards agriculture as an occupation.

This finding is found similar to that reported by Patel (2006) and Uprikar (2008).

4.4.5 Land holding and attitude

The data presented in the Table 19 indicate that land holding had positive and highly significant correlation ($r = 0.581^{**}$) with the attitude of rural youth towards agriculture as an occupation. The probable reason behind such result might be that rural youth having high land holding had wider scope to go for crop diversification and grow other remunerative crops along with traditional crops so that they could earn more. This would have inculcated more favorable
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attitude towards agriculture as an occupation among the rural youth. Hence null hypothesis (Ho5) that “There is no relationship between land holding of the rural youth and their attitude towards agriculture as an occupation” is rejected.

Thus, it can be inferred that land holding had significant influence in shaping the attitude of rural youth towards agriculture as an occupation. This finding gets support from the findings reported by Uprikar (2008) and Gwary et al. (2011).

4.4.6 Annual income and attitude

A perusal of the Table 19 reveals that correlation between annual income and attitude of rural youth was positive and highly significant (r = 0.711**). It indicates that rural youth with higher annual income had more favorable attitude towards agriculture as an occupation. It is quite obvious that higher annual income would enable the person to acquire required inputs for farming in time, take calculated risk and adopt improved technology so that profit could be maximized. This in turn would help in shaping favorable attitude towards agriculture as an occupation. Hence, the null hypothesis (Ho6) that “There is no relationship between annual income of the rural youth and their attitude towards agriculture as an occupation” is rejected and it is inferred that annual income played significant role on attitude of the rural youth towards agriculture as an occupation.

This finding is found similar to reported by Singh et al. (1999), Patel (2006) and Uprikar (2008).

4.4.7 Occupation and attitude

The data given in Table 19 revealed that occupation had positive and non significant correlation (r = 0.195NS) with attitude towards
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agriculture as an occupation. Hence, the null hypothesis (Ho7) that “there is no relationship between occupation of the rural youth and their attitude towards agriculture as an occupation” is accepted. The non-significant association between occupation and attitude is the resultant effect of much homogeneity among the respondents in terms of their occupation.

This finding has been supported by the findings of Trivedi (2010).

4.4.8 Extension contact and attitude

As it is apparent from the data presented in the Table 19, extension contact had positive and highly significant correlation (r = 0.818**) with the attitude of rural youth towards agriculture as an occupation. This indicates that rural youth with higher extension contact were more oriented towards agriculture as an occupation. The higher level of contact made by the rural youth with extension agency would enable them to broaden their mental horizon, acquire more and more information, exchange ideas and thoughts and these would help them to remove their doubts related to farming and make obscure points clear. This would help to cultivate favorable attitude among rural youth towards agriculture as an occupation. So, null hypothesis (Ho8) that “there is no relationship between extension contact of the rural youth and their attitude towards agriculture as an occupation” is rejected.

It can thus be concluded that extension contact played significant role in shaping attitude of rural youth towards agriculture as an occupation.

This finding has been supported by the findings of Patel and Chauhan (2004), Patel (2006), Uprikar (2008) and Aski et al. (2010).
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4.4.9 Economic motivation and attitude

It is obvious from the data presented in Table 19 that there was a positive and highly significant ($r = 0.727^{**}$) relationship between economic motivation and attitude of rural youth. It means higher the economic motivation among rural youth, more is the favorable attitude among them towards agriculture as an occupation. Hence, the null hypothesis (Ho9) that “there is no relationship between economic motivation of the rural youth and their attitude towards agriculture as an occupation” is rejected.

The probable reason might be that in the study area, agriculture was the major source of livelihood and hence, the rural youth who had higher economic motivation were more inclined to maximize the income from farming; this would have made them take more and more interest in farming and thus they would have developed more favorable attitude towards agriculture as an occupation.

Thus it can be concluded that economic motivation had significant influence on attitude of rural youth towards agriculture as an occupation.

This finding is in conformity with the findings of Patel (2005), Surve et al. (2007), Uprikar (2008) and Aski et al. (2010).

4.4.10 Risk orientation and attitude

The data presented in the Table 19 illustrate that risk orientation had positive and highly significant correlation ($r = 0.769^{**}$) with the attitude of rural youth towards agriculture as an occupation. This indicates that more favorable attitude was observed among the rural youth who had high risk orientation. Hence, the null hypothesis
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(Ho10) that “There is no relationship between risk orientation of the rural youth and their attitude towards agriculture as an occupation” is rejected with the inference that risk orientation is a vital factor in shaping the attitude of the rural youth towards agriculture as an occupation.

The probable reason might be that the rural youth with higher risk orientation are more likely to take calculated risk in farming which may bring success to them and when success is achieved, the attitude would turn more favorable.

This finding is similar to those reported by Bite (2009), Aski et al. (2010) and Dighe and Rajput (2010).

4.4.11 Scientific orientation and attitude

Data shown in Table 19 indicate that there existed positive and highly significant correlation (\( r = 0.707^{**} \)) between scientific orientation and attitude of rural youth towards agriculture as an occupation. It means that rural youth who were more scientifically oriented had more favorable attitude. Hence, the null hypothesis (Ho11) that “there is no relationship between scientific orientation of the rural youth and their attitude towards agriculture as an occupation” is rejected. It is quite obvious that the rural youth with high scientific orientation are firm believers in potential of science and are more inclined to use and adopt scientific methods and latest technologies in farming as a result of which their production would increase which in turn would help in forming favorable attitude among them towards agriculture.
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This finding is in conformity with the findings of Padmavati et al. (1999) and Awasthi et al. (2000).

4.4.12 Relative importance of independent variables in explaining attitude level of rural youth towards agriculture as an occupation

In the previous sub-section, the relationship between dependent and independent variables was expressed in terms of correlation coefficient ($r$) derived. However, it is truly expected that in behavioural sciences no dependent variable can be influenced singly by one independent variable. As such the extent of attitude is in reality not influenced by any of the independent variables singly. It is found to be influenced by more than one of these independent attributes jointly through their reciprocal and interactive relationship. In order to assess the contribution (influence) of each independent variable to the dependent variable, the effect of others needs to be held constant.

Efroymsons (1962) stated that stepwise regression is one such method which has been widely adopted in multiple regression analysis. It has got the added advantage that at each stage of analysis every variable is subjected to an examination for its predictive value. The stepwise regression was carried out with the help of computer programme. The results are presented in Table 20 and graphically depicted in Fig. 18.
**Result and Discussion**

**Table 20: Step-wise multiple regression analysis of attitude of rural youth towards agriculture as an occupation.**

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Independent Variable</th>
<th>Multiple co-relation co-efficient (R)</th>
<th>Co-efficient of Determination ($R^2$)</th>
<th>'F' Values</th>
<th>Partial regression co-efficient (b)</th>
<th>'t' value</th>
<th>Standard partial regression co-efficient (SPRC)</th>
<th>R A N K</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Extension contact</td>
<td>0.818</td>
<td>0.669**</td>
<td>197.721</td>
<td>1.940</td>
<td>5.232</td>
<td>0.492</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>Scientific orientation</td>
<td>0.842</td>
<td>0.709**</td>
<td>118.318</td>
<td>0.208</td>
<td>2.707</td>
<td>0.212</td>
<td>II</td>
</tr>
<tr>
<td>3</td>
<td>Risk orientation</td>
<td>0.851</td>
<td>0.725**</td>
<td>84.299</td>
<td>0.333</td>
<td>2.332</td>
<td>0.225</td>
<td>III</td>
</tr>
</tbody>
</table>

** Highly significant at 0.01 level of probability

N.B. Figures in parenthesis show percentage.

The content of the Table 20 reveal that, the variables were introduced stepwise in succession depending upon the contribution of each of the independent variables in explaining the variation in the dependent variable.

The multiple regressions co-efficient (R) represents the correlation between the dependent variable's actual score and the predicted scores obtained from the filled multiple regression equation. The co-efficient of multiple determinations ($R^2$) gives the average amount of change in dependent variable when all independent variables were taken together and were tested with 'F' test for their significance.

Partial regression co-efficient (b) represents the change in dependent variable for a unit change in independent variable and it was tested with 't' test for its significance.

The various independent variables had their own units of measurement which did not permit a comparison of the partial 'b' values. To facilitate the comparison the partial 'b' values were
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converted into standard partial 'b' values which were free from the units of measurements.

The independent variables were then ranked on the basis of standard partial 'b' values to find out their relative importance in predicting the dependent variable.

From the Table 20, it can be observed that out of 11 independent variables, only 3 variables were exerting influence on the attitude of rural youth towards agriculture as an occupation. All the three variables together were contributing 72.50 per cent variation as indicated by (R^2) value for attitude of rural youth towards agriculture as an occupation.

It can be inferred that 66.90 per cent variation in attitude towards agriculture as occupation is contributed by extension contact of rural youth. However, extension contact + scientific orientation contributed for 70.90 per cent and extension contact + scientific orientation + risk orientation contributed for 72.50 per cent change in dependent variable. The R^2 values at each stage of step up regression were found to be significant at 0.01 level of probability.

The partial 'b' values of these three variables were converted into standard partial 'b' values which were 0.492 for extension contact, 0.212 for scientific orientation and 0.225 for risk orientation. The ‘t’ value or partial 'b' values were significant in case of all the three independent variables. Further, rank order given on the basis of standard partial 'b' values from highest to lowest showed that extension contact stood first followed by scientific orientation and risk orientation which stood second and third, respectively.

It can be inferred from the above results that, the independent variables such as extension contact, scientific orientation and risk
orientation contributed 72.50 per cent variation in attitude of rural youth towards agriculture as an occupation. The findings are suggestive of the fact that for shaping the attitude of rural youth more favorable towards agriculture as an occupation, such variables should be reckoned.

4.4.13 Path analysis of independent variables with the attitude of the rural youth towards agriculture as an occupation

The correlation co-efficient (r) values as mentioned earlier in Table 19 were only partially absolute and partially relative and a partial relationship was a contribution made by other variables exercising their influence jointly. It is therefore necessary to study the influence of one variable on other variable both directly as well as through other variables. Hence, path analysis was carried out the results of which are presented in Table 21 and graphically depicted in Fig. 19.

Direct effect

The results of path analysis presented in Table 21 indicate that extension contact of the rural youth had exerted highest positive direct effect (0.4752) on attitude level of rural youth in relation to agriculture as an occupation. It was followed by annual income (0.3607), risk orientation (0.228), scientific orientation (0.2044) and occupation (0.0389).

It was further noticed that six variables exercised the negative direct effect on attitude of rural youth towards agriculture as an occupation. Land holding of the rural youth had excreted highest negative direct effect (−0.2988) on attitude level of rural youth towards agriculture as an occupation followed by education (−0.0701), size of
Result and Discussion

family (−0.065), economic motivation (−0.0588), Caste (−0.0535) and social participation (−0.0123).

Total indirect effect

So far as total indirect effect is concerned, land holding (0.8797) had exerted maximum positive indirect effect followed by economic motivation (0.7858), caste (0.6498), risk orientation (0.5414), scientific orientation (0.5023), annual income (0.35), extension contact (0.3424), social participation (0.3192), education (0.1908), and occupation (0.1565).

Thus, size of family (−0.3181) is the only single trait that exerted negative and indirect effect on attitude level.

Table 21: Direct and indirect effect of independent variables on attitude of rural youth towards agriculture as an occupation. n=100

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variables</th>
<th>Direct effect</th>
<th>Total indirect effect</th>
<th>Substantial indirect effect through</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>First order</td>
</tr>
<tr>
<td>1</td>
<td>Education (X1)</td>
<td>-0.0701</td>
<td>0.1908</td>
<td>0.0727 (X8)</td>
</tr>
<tr>
<td>2</td>
<td>Size of family (X2)</td>
<td>-0.065</td>
<td>-0.3181</td>
<td>-0.1689 (X8)</td>
</tr>
<tr>
<td>3</td>
<td>Caste (X3)</td>
<td>-0.0535</td>
<td>0.6498</td>
<td>0.3159 (X8)</td>
</tr>
<tr>
<td>4</td>
<td>Social Participation (X4)</td>
<td>-0.0123</td>
<td>0.3192</td>
<td>0.1631 (X8)</td>
</tr>
<tr>
<td>5</td>
<td>Land holding (X5)</td>
<td>-0.2988</td>
<td>0.8797</td>
<td>0.3508 (X8)</td>
</tr>
<tr>
<td>6</td>
<td>Annual income (X6)</td>
<td>0.3607</td>
<td>0.35</td>
<td>0.4098 (X8)</td>
</tr>
<tr>
<td>7</td>
<td>Occupation (X7)</td>
<td>0.0389</td>
<td>0.1565</td>
<td>0.0775 (X8)</td>
</tr>
</tbody>
</table>
Result and Discussion

<table>
<thead>
<tr>
<th></th>
<th>Extension contact (X8)</th>
<th>Economic motivation (X9)</th>
<th>Risk orientation (X10)</th>
<th>Scientific orientation (X11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>0.4752</td>
<td>-0.0588</td>
<td>0.228</td>
<td>0.2044</td>
</tr>
<tr>
<td>9</td>
<td>0.3424</td>
<td>0.7858</td>
<td>0.5414</td>
<td>0.5023</td>
</tr>
<tr>
<td>10</td>
<td>0.3111</td>
<td>0.407</td>
<td>0.3824</td>
<td>0.3253</td>
</tr>
<tr>
<td>11</td>
<td>-0.220</td>
<td>0.2731</td>
<td>0.2657</td>
<td>0.2065</td>
</tr>
</tbody>
</table>

**Substantial indirect effect**

With regards to first order substantial indirect effect, ten were routed through extension contact and one through annual income. The first order substantial positive indirect effect on attitude was put forth by annual income (0.4098) followed by economic motivation (0.407), risk orientation (0.3824), land holding (0.3508), scientific orientation (0.3253), caste (0.3159), social participation (0.1631) and occupation (0.0775) through extension contact respectively where as size of family had negative first order substantial indirect effect (−0.1689) through extension contact. Extension contact had exerted positive first order substantial indirect effect (0.3111) through annual income on attitude in relation to agriculture as an occupation.

With regards to second order substantial indirect effect, nine were routed through annual income and one each through land holding, risk orientation and scientific orientation. The second order substantial positive indirect effect on attitude was put forth by land holding (0.3448), economic motivation (0.2731), risk orientation (0.2657), scientific orientation (0.2065), caste (0.1898), social participation (0.1145) and occupation (0.0476) through annual income where as size of family had negative second order substantial indirect (−0.0996) through annual income towards attitude of rural
Result and Discussion

youth. Extension contact exerted negative second order substantial indirect (-0.2206) effect through land holding, annual income exerted positive second order substantial indirect effect (0.1679) through risk orientation and education exerted positive second order substantial indirect effect (0.0556) through scientific orientation.

It could be concluded that out of 22 substantial indirect effects, ten were routed through extension contact of the rural youth, nine through annual income of the rural youth and one each through land holding, risk orientation and scientific orientation of the rural youth.

Further extension contact and annual income of the rural youth were found to be key variables in exerting considerable direct and substantial effect on attitude of rural youth towards agriculture as an occupation. Size of family was the major trait in determination of attitude level through negative indirect and direct effect whereas annual income, risk orientation and scientific orientation of the rural youth were the key variables which influenced positively and indirectly.

4.5 Constraints faced by rural youths in adopting agriculture as an occupation

There might be many constraints on the path of rural youth in adopting agriculture as an occupation. If such constraints are identifies, corrective measures can be taken up. With this in view, the rural youth were requested to express their constraints in adopting agriculture as an occupation. Frequency and percentage for each constraint were calculated. The data in this regard are presented in Table 22.

Table 22: Constraints faced by rural youths in adopting agriculture as an occupation n=100
**Result and Discussion**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Constraints</th>
<th>Number</th>
<th>Per cent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High rate of farming input and seed</td>
<td>92</td>
<td>92.00</td>
<td>I</td>
</tr>
<tr>
<td>2</td>
<td>Less availability of laborers for performing farm operations</td>
<td>87</td>
<td>87.00</td>
<td>II</td>
</tr>
<tr>
<td>3</td>
<td>Unavailability of chemical fertilizers in time</td>
<td>83</td>
<td>83.00</td>
<td>III</td>
</tr>
<tr>
<td>4</td>
<td>Low price of produce in APMC</td>
<td>79</td>
<td>79.00</td>
<td>IV</td>
</tr>
<tr>
<td>5</td>
<td>Fluctuations in market rate</td>
<td>75</td>
<td>75.00</td>
<td>V</td>
</tr>
<tr>
<td>6</td>
<td>Irregular supply of electric power</td>
<td>73</td>
<td>73.00</td>
<td>VI</td>
</tr>
<tr>
<td>7</td>
<td>High cost of irrigation on rent base</td>
<td>34</td>
<td>34.00</td>
<td>X</td>
</tr>
<tr>
<td>8</td>
<td>Lack of own tube well</td>
<td>39</td>
<td>39.00</td>
<td>IX</td>
</tr>
<tr>
<td>9</td>
<td>High cost of transportation</td>
<td>61</td>
<td>61.00</td>
<td>VIII</td>
</tr>
<tr>
<td>10</td>
<td>Unavailability of guarantor against loan</td>
<td>65</td>
<td>65.00</td>
<td>VII</td>
</tr>
</tbody>
</table>

As seen from the Table 22, the major important constraints faced by the rural youth in adopting agriculture as an occupation were: high rate of farming input and seed (92.00 per cent), less availability of laborers for performing farm operations (87.00 per cent), unavailability of chemical fertilizers in time (83.00 per cent), low price of produces in APMC (79.00 per cent), fluctuations in market rate (75.00 per cent) and irregular supply of electric power (73.00 per cent). Some other constraints were: non availability of guarantor against loan (65.00 per cent), high cost of transportation (61.00 per cent), lack of own tube well (39.00 per cent) and high cost of irrigation on rent base (34.00 per cent).
4.6 Suggestions made by rural youth to overcome the constraints faced by them

An attempt was also made to ascertain suggestions from the rural youth to overcome various constraints faced by them in adopting agriculture as an occupation. The rural youth were requested to offer their valuable suggestions against difficulties faced by them in adopting agriculture as an occupation. The suggestions given by the rural youth were collected, summarized and presented in Table 23.

The major suggestions as endorsed by the rural youth to overcome their constraints in adopting agriculture as an occupation were: price of seed should be minimized (93.00 per cent), low labor consuming technology should be developed (86.00 per cent), chemical fertilizer should be made available in time (82.00 per cent) and proper marketing facility should be established (78.00 per cent). Some other suggestions were: sufficient electric power should be provided regularly (71.00 per cent), middle man commission should be avoided (67.00 per cent), procedure of loan should made easy (64.00 per cent) and irrigation water supply should be regulated (37.00 per cent).

The result is similar to finding of Sajjan (2006).

Table 23: Suggestions given by rural youth to overcome the constraints faced by them  

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Suggestions</th>
<th>Number</th>
<th>Per cent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Price of seed should be minimized</td>
<td>93</td>
<td>93.00</td>
<td>I</td>
</tr>
<tr>
<td>2.</td>
<td>Low labor consuming technology</td>
<td>86</td>
<td>86.00</td>
<td>II</td>
</tr>
</tbody>
</table>
### Result and Discussion

<table>
<thead>
<tr>
<th></th>
<th>should be developed</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Chemical fertilizer should be made available in time</td>
<td>82</td>
<td>82.00</td>
</tr>
<tr>
<td>4.</td>
<td>Rate of produce should be regulated</td>
<td>76</td>
<td>76.00</td>
</tr>
<tr>
<td>5.</td>
<td>Proper marketing facilities should be established</td>
<td>78</td>
<td>78.00</td>
</tr>
<tr>
<td>6.</td>
<td>Irrigation water supply should be regulated</td>
<td>37</td>
<td>37.00</td>
</tr>
<tr>
<td>7.</td>
<td>Procedure to avail loan should be made easy</td>
<td>64</td>
<td>64.00</td>
</tr>
<tr>
<td>8.</td>
<td>Middle man commission should be avoided</td>
<td>67</td>
<td>67.00</td>
</tr>
<tr>
<td>9.</td>
<td>Sufficient electric power should be provided regularly</td>
<td>71</td>
<td>71.00</td>
</tr>
</tbody>
</table>
In this chapter, a nutshell description of the present study in respect of summary, major findings, conclusions, empirical model, implications and suggestions for further research have been given.

5.1 SUMMARY:

Youth have been playing quite a significant role in almost every country of the world as they possess zeal and vigour. As psychologists said, “Youth possess dynamic energies, creative activities and adventurous spirit”. The socio-economic development and prosperity of rural areas depends to a considerable extent, on the type of youth living in rural areas, because the rural youth have abilities to orient themselves to go along the main stream of the development process. They reflect the national potentiality and represent the life blood of a nation. Development of youth thus determines the development of community and country as a whole. India both before and after independence witnessed emergence of youth as a potential force. Involvement of youth in national developmental activities is felt significantly relevant because of their boundless energy and innate idealism, which could give a positive direction in improving the quality of life.

Since youth are recognized as effective “change agents”, they can help in the process of dissemination and adoption of modern techniques of agriculture. If the talents and abilities of rural youth are properly nurtured and systematically guided, agriculture which is the backbone of national economy can attain sustained growth and bring prosperity to the country. Agriculture generally, involves five stages
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production, processing, storage, marketing and consumption. In most of these stages, rural youth can actively be involved. But now-a-day, the picture is somewhat different. The wide spread illiteracy in rural areas, unemployment among the educated youth, lack of proper guidance, 'brain drain' of educated rural youth to urban areas are some of the major problems. It is disturbing to note that youth are losing interest and confidence in agriculture and allied activities; hence, they are not willingly involved in agricultural operations. This fact led the researcher to conduct a study on “Attitude of rural youth towards agriculture as an occupation”.

5.2 OBJECTIVES OF THE STUDY:

1. To study the profile of rural youth
2. To develop a scale to measure attitude of rural youth towards agriculture as an occupation
3. To measure attitude of rural youth towards agriculture as an occupation
4. To ascertain relationship between profile of rural youth and their attitude towards agriculture as an occupation
5. To study the constraints faced by the rural youth in adopting agriculture as an occupation and their suggestions to overcome such constraints

5.3 METHODOLOGY:

The present investigation was carried out in Anand district of Gujarat state. Anand district comprises of eight talukas out of which, two talukas viz.: Tarapur and Khambhat were selected for the study. From each selected taluka, five villages were randomly selected. Ten rural youth were randomly selected as respondents from each selected village. Thus the sample size consisted of 100 respondents.
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The independent variables undertaken in this study were: Education as personal variables; size of family, caste, social participation, land holding, annual Income and occupation as socio-economic variables, extension contact as communicational variable and economic motivation, risk orientation and scientific orientation as psychological variable. The dependent variable chosen for the purpose of the study was attitude of rural youth towards agriculture as an occupation.

The independent variables were measured by using suitable scales and procedures adopted by various researchers with suitable modifications, while for measuring the dependent variable, the scale was developed. The interview schedule was prepared in local language in light of the objectives of the study and was pre-tested. Suitable modifications on the basis of pre-testing were incorporated in the final schedule. The data of this study were collected by arranging personal interview with all 100 respondents of the two selected talukas. The data so collected were classified, tabulated and analyzed in order to make the findings meaningful. The statistical measures such as mean, percentage, mean score, coefficient of correlation, step-wise regression and path analysis were used.

5.4 MAJOR FINDINGS

The important findings of the study are as under:

5.4.1 PROFILE OF THE RURAL YOUTH:

1. Less than half (46.00 per cent) of the rural youth had higher secondary level of education followed by slightly more than one fourth (26.00 per cent) and one fifth (20.00 per cent) of them who had graduate and above level of education and secondary level of education, respectively. Only 8.00 per cent of rural youth
Summary and Conclusions

had primary education. Not a single rural youth was found illiterate.

2. Two third (66.00 per cent) of rural youth belonged to large sized family and rest 34.00 per cent of rural youth had small size of family.

3. More than half (52.00 per cent) of rural youth belonged to general caste, while 27.00 per cent, 12.00 per cent and 9.00 per cent of the rural youth were from other backward caste, schedule caste and schedule tribe, respectively.

4. More than half (54.00 per cent) of the rural youth had membership in one organization, while 23.00 per cent of them had membership in more than one organizations. Further, 16.00 per cent of rural youth had no membership in any organization, while 7.00 per cent of them were position holders along with membership.

5. More than half (53.00 per cent) of the rural youth possessed medium size of land holding, whereas 25.00 per cent and 16.00 per cent of them possessed large and small size of land holding, respectively. Only 6.00 per cent of them possessed marginal size of land holding.

6. Nearly two fifth (39.00 per cent) of the rural youth were found with `2,00,001 to `3,00,000 annual income, followed by 24.00 per cent, 17.00 per cent and 11.00 per cent with `1,00,001 to `2,00,000, `3,00,001 to `4,00,000 and up to Rs.1,00,000 annual income, respectively. Only 9.00 per cent of rural youth had above `4,00,000 annual income.

7. Majority (66.00 per cent) of the rural youth were engaged in agriculture + animal husbandry occupation while, 11.00 per
Summary and Conclusions

9.00 per cent and 6.00 per cent of them who were engaged in agriculture + animal husbandry + business and agriculture + animal husbandry + service, respectively.

8. More than half (55.00 per cent) of the rural youth had medium level of extension contact, while each 17.00 per cent and 13.00 per cent of them had high and low level of extension contact. Only 8.00 per cent and 7.00 per cent of rural youth had very low and very high extension contact, respectively.

9. Slightly more than two fifth (42.00 per cent) of the rural youth had medium economic motivation, while nearly one fourth (24.00 per cent) of rural youth were found to have high economic motivation followed by 15.00 per cent, 12.00 per cent and 7.00 per cent of them with low, very high and very low economic motivation, respectively.

10. Three fifth (60.00 per cent) of the rural youth had medium risk orientation, while 13.00 per cent and 12.00 per cent of them had high and very high risk orientation, respectively. Only 9.00 per cent and 6.00 per cent of the rural youth had low and very low risk orientation, respectively.

11. Slightly less than half (46.00 per cent) of the rural youth had medium level of scientific orientation, while 30.00 per cent and 11.00 per cent of the rural youth had high and very high level of scientific orientation, respectively. Only 8.00 per cent and 5.00 per cent of them had low and very low scientific orientation, respectively.
Summary and Conclusions

5.4.2 Scale to measure attitude of rural youth towards agriculture as an occupation.

Scale was developed by the researcher to measure attitude of the rural youth towards agriculture as an occupation using scale product method. Out of twenty-six statements, fourteen statements were selected in the final format of attitude scale as there was strong agreement or disagreement among the judges for selection of such statements. The scale was found to be reliable (0.79) and valid.

5.4.3 Attitude of rural youth towards agriculture as an occupation.

More than half (55.00 per cent) of the rural youth had moderately favorable attitude towards agriculture as an occupation, while 23.00 per cent and 13.00 per cent of them had more favorable and most favorable attitude towards agriculture as an occupation, respectively. Only 6.00 per cent and 3.00 per cent of the rural youth had less favorable and least favorable attitude towards agriculture as an occupation, respectively.

5.4.4 Relationship between independent variables and attitude of rural youth towards agriculture as an occupation

Out of eleven independent variables, eight variables viz., caste, social participation, land holding, annual income, extension contact, economic motivation, risk orientation and scientific orientation were positively and significantly correlated with attitude towards agriculture as an occupation, whereas size of family had negative and significant correlation with attitude towards agriculture as an occupation. Rest traits viz., education and occupation failed to
Summary and Conclusions

establish significant relationship with attitude of rural youth towards agriculture as an occupation.

5.4.5 Extent of contribution of selected independent variables on the attitude of the rural youth

The variable extension contact alone contributed to 66.90 per cent of total variation in attitude of rural youth, followed by extension contact + scientific orientation (70.90 per cent) and extension contact + scientific orientation + risk orientation (72.50 per cent), respectively.

5.4.6 Direct and indirect effect of independent variables on attitude of rural youth

Path analysis revealed that major variables contributing the maximum direct positive effect were extension contact, annual income and risk orientation whereas those contributing the maximum negative direct effect were land holding, education and size of family.

5.4.7 Constraints faced by the rural youth in adopting agriculture as an occupation.

Major constraints faced by rural youth in adopting agriculture as an occupation were high rate of farming input and seed, less availability of laborers for performing farm operations, unavailability of chemical fertilizers in time, low price of produce in APMC, fluctuations in market rate and Irregular supply of electric power.

5.4.8 Suggestions from the rural youth to overcome the constraints faced by them in adopting agriculture as an occupation.

Major suggestions given by the rural youth to overcome the constraints faced by them in adopting agriculture as an occupation were: price of seed should be minimized, low labor consuming
technology should be developed, chemical fertilizer should be made available in time, proper marketing facilities should be established and rate of produce should be regulated.

5.5 CONCLUSIONS

1. Majority of the rural youth had higher secondary to graduate and above level of education, large size of family and were from general caste.

2. Majority of the rural youth had membership in one or more than one social organization, medium to large size of land holding, `1,00,001 to `3,00,000 of annual income and agriculture + animal husbandry as their occupation.

3. Majority of the rural youth had medium to high level of extension contact, economic motivation, risk orientation and scientific orientation.

4. Majority of the rural youth had moderately favorable to more favorable attitude towards agriculture as an occupation.

5. Out of eleven independent variables, nine variables viz., caste, size of family, social participation, land holding, annual income, extension contact, economic motivation, risk orientation and scientific orientation showed significant influence on their attitude towards agriculture as an occupation, where education and occupation failed to show any significant influenced on their attitude towards agriculture as an occupation.

6. Extension contact of the rural youth was found to be the key variables in causing maximum variation as well as exerting considerable direct and substantial effect on attitude of rural youth towards agriculture as an occupation.
Summary and Conclusions

7. Major constraints faced by rural youth in adopting agriculture as an occupation were high rate of farming input and seed, less availability of laborers for performing farm operations and unavailability of chemical fertilizers in time, while the major suggestions as endorsed by the rural youth were: price of seed should be minimized, low labor consuming technology should be developed and chemical fertilizer should be made available in time.

5.6 EMPIRICAL MODEL

The tentative conceptual model was laid down in the beginning of this dissertation, while arriving at the conceptual frame of the study Fig. 4. Now, the final form has been depicted through the empirical model in Fig. 20. The model shows those characteristics of the rural youth which had positively significant, negatively significant and non-significant relationship with dependent variable i.e. attitude of rural youth towards agriculture as an occupation.

5.7 ACTION IMPLICATIONS

Based on the findings of the study, following action implications emerge.

1. The scale developed to measure attitude of rural youth is found to be reliable and valid, hence it may be used in future studies.

2. Extension contact has been found as a key variable in exerting influence on attitude of rural youth towards agriculture as an occupation, hence this variable may be focused. For that, exposure visits of the rural youth to the university centers/scientists and successful farmers should be arranged. Training institutes in the district can also play a significant role in manipulating this variable.
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3. The study revealed that caste, social participation, land holding, annual income, extension contact, economic motivation, risk orientation and scientific orientation were positively and significantly related with attitude of rural youth towards agriculture as an occupation. Due manipulation of these characteristics, wherever possible, may be made to shape the attitude towards more favorableness for those rural youth who have less favorable attitude. Further, efforts may also be made to sustain the status of those rural youth who have already more favorable attitude towards agriculture as an occupation; such rural youth may be utilized by the extension agencies in convincing the other rural youth to know and adopt agriculture as an occupation.

4. Rural youth expressed some constraints which hinder the adoption of agriculture as an occupation. Efforts should be made to lessen the magnitude of such constraints.

5.8 Suggestions for future research work

The present study has thrown light on some of the new areas in which future research work may be undertaken; these are as under:

1. This type of study should be conducted in different areas to assess the attitude of rural youth towards agriculture as an occupation.

2. The area of research should be extended to large number of farmers/ rural youth to draw valid conclusions.

3. Some other characteristics of the respondents, other than those included in this study, might be affecting their attitude towards agriculture as an occupation; they should be identified and studied.
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4. Such study should be repeated after some lapse of time on large sample size to increase its validity.
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pea production technology by pigeon pea growers. M.Sc. (Agri.)

***************
APPENDIX

INTERVIEW SCHEDULE

“Attitude of rural youths towards agriculture as an occupation”

Scheduled No: _________                                           Date: ____________

Part – 1

Socio-Personal, Economic, Communicational and Psychological Characteristics

1. Name: 

2. Village: 

3. Taluka: 

4. Age: 

5. Education: Primary/ Secondary/ Higher secondary/ Graduate and above.

6. Total number of members in Family: 

7. Caste: General/ Other Backward Caste/ Schedule Tribe/ Schedule Caste

8. Social participation: Are you a member or office bearer of any organization?  Yes/ No. If yes, please indicate in which of the following organizations you are a member/ position holder?

<table>
<thead>
<tr>
<th>Sr.</th>
<th>Organization</th>
<th>Type of membership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Member</td>
</tr>
</tbody>
</table>
No. 1 Village Panchayat  
2 Milk co-operative society  
3 Purchase/ sales co-operative society  
4 Youth club  
5 Irrigation co-operative society  
6 Farmers’ organization  
7 Taluka/ District panchayat  
8 Education management committee  
9 Others  


10. Annual family income: `__________

11. Occupation:

Only farming (   )
Agriculture + Animal husbandry (   )
Agriculture + Animal husbandry + other business (   )
Agriculture + Animal husbandry + Service (   )
Only business (   )
Only job (   )
Unemployed (   )

12. Extension contact: Please state to whom do you contact and how often to get agricultural information.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of Sources</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Regular</td>
</tr>
<tr>
<td>1</td>
<td>Subject matter specialist</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Agril. Extension officer</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Village level worker</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Agricultural University</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Co-operative society</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>NGO</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Other (specify)</td>
<td></td>
</tr>
</tbody>
</table>
13. **Economic motivation:**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A rural youth should work towards large yield and economic profit. (+)</td>
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<tr>
<td>2.</td>
<td>The most successful person is one who earns maximum profit. (+)</td>
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<td>3.</td>
<td>A rural youth should try any new farming idea which may earn more profit for him. (+)</td>
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<tr>
<td>4.</td>
<td>A youth should adopt new technology in place of traditional old ones to increase profit. (+)</td>
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<tr>
<td>5.</td>
<td>A youth must earn for his living purpose but most important thing in life cannot be determined in economic terms. (-)</td>
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<tr>
<td>6.</td>
<td>It is of no use to run here and there to earn more money because a person can earn only that much which is decided by destiny. (-)</td>
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</table>

14. **Risk orientation:**

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<th>No.</th>
<th>Statements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I have trust in my own potential to face occupational challenges. (+)</td>
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<td>2.</td>
<td>I don't like to use any idea which may create risk in my profession. (-)</td>
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<tr>
<td>3.</td>
<td>I am always ready to bear</td>
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</tbody>
</table>
4. I like to take risk of adopting costly technology in my occupation. (+)

5. I follow only those methods which have been successfully adopted by others. (-)

6. I feel people with intended risk bearing capacity are always stepping the top. (+)

7. I feel fear that something unexpected might damage my plans of adopting new technology. (-)

8. I can reduce the effect of any risk in agriculture by proper management. (+)

9. I can reduce the effect of any risk in agriculture by proper execution. (+)

15. **Scientific orientation towards agriculture:**

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<th>No.</th>
<th>Statements</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scientific methods of farming always confuse me. (-)</td>
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<td>2</td>
<td>Quality crop production is possible through use of science. (+)</td>
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<td>3</td>
<td>I believe in traditional method of farming. (-)</td>
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<td></td>
<td>In my opinion use of science in agriculture means fruitful result. (+)</td>
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<tr>
<td>5</td>
<td>Use of scientific method in agriculture damage ecology. (-)</td>
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<tr>
<td>6</td>
<td>Application of science in farming means savings of money. (+)</td>
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<td>7</td>
<td>I like to prefer scientific methods of crop production. (+)</td>
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<td>8</td>
<td>Application of science in farming means wastage of time. (-)</td>
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<tr>
<td>9</td>
<td>Application of modern scientific method in agriculture causes problems. (-)</td>
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<tr>
<td>10</td>
<td>Application of scientific method in farming is impractical. (-)</td>
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<tr>
<td>11</td>
<td>Sustainable agriculture is possible only through use of science in farming. (+)</td>
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<td>12</td>
<td>It is inevitable to use scientific methods in farming to have higher production. (+)</td>
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<td>13</td>
<td>Economic crop production is possible only through use of science and technology in agriculture. (+)</td>
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### Part – 2

16. **Attitude of rural youths towards agriculture as an occupation**

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</thead>
<tbody>
<tr>
<td>1</td>
<td>Agriculture can provide sustainable livelihood to rural youth. (+)</td>
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<td>2</td>
<td>I feel pride to engage in agriculture occupation. (+)</td>
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<td>3</td>
<td>I feel that Agriculture is the best occupation for rural youth. (+)</td>
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<td>4</td>
<td>I feel that Agriculture is not remunerative enterprise. (-)</td>
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<td>5</td>
<td>Agriculture is our ancestral occupation and I would like to continue it. (+)</td>
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<td>6</td>
<td>I prefer Agriculture as an occupation. (+)</td>
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<tr>
<td>7</td>
<td>It is better to do job with less salary than to adopt agriculture as an occupation. (-)</td>
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<tr>
<td>8</td>
<td>I feel that Agriculture is an effective occupation to earn more money from agricultural land. (+)</td>
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<td>9</td>
<td>Agriculture makes the person bankrupt. (-)</td>
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<tr>
<td>10</td>
<td>Agriculture is the best way of</td>
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</tbody>
</table>
earning money using creativity. (+)  

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<tbody>
<tr>
<td>11.</td>
<td>I avoid Agriculture as it a tedious job. (-)</td>
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<tr>
<td>12.</td>
<td>I think that Agriculture is an effective way to utilize natural recourses. (+)</td>
</tr>
<tr>
<td>13.</td>
<td>Villages can’t prosper unless rural youth adopt agriculture occupation. (+)</td>
</tr>
<tr>
<td>14.</td>
<td>I feel sorry for those who abandon agriculture and migrate to cities for a small job. (+)</td>
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</tbody>
</table>

17. Please, state the constrains which you face in adopting agriculture as an occupation

1. ________________________________
2. ________________________________
3. ________________________________
4. ________________________________
5. ________________________________

18. Please, give your suggestion to overcome such constrains.

1. ________________________________
2. ________________________________
3. ________________________________
4. ________________________________
5. ________________________________
Fig. 2: Map showing the different districts of Gujarat state
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여러분들, 오늘은 중요한 날이었습니다. 

위에 보시는 문장은 한국어로 쓰여 있는 것으로 보입니다. 

문장의 내용은 다음과 같습니다.

분석의 결과, 오늘은 큰 일이 일어났다고 합니다.

이런식으로 알고 보시면 좋을 것 같습니다.
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