VIABILITY OF SELF HELP GROUPS IN VEGETABLE AND FRUIT PROMOTION COUNCIL KERALAM - A MULTIDIMENSIONAL ANALYSIS

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DECLARATION

I hereby declare that the thesis entitled **"VIABILITY OF SELF HELP GROUPS IN VEGETABLE AND FRUIT PROMOTION COUNCIL KERALAM – A MULTIDIMENSIONAL ANALYSIS"** is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree ,diploma, associateship, fellowship or any other similar title of any other university or society .

Vellayani
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CERTIFICATE

Certified that the thesis entitled " VIABILITY OF SELF HELP GROUPS IN VEGETABLE AND FRUIT PROMOTION COUNCIL KERALAM – A MULTIDIMENSIONAL ANALYSIS " is a record of research work done independently by Mr. FAYAS A. M under my guidance and supervision and that it has not previously formed the basis for the award of any degree, diploma, associateship or fellowship to him.

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To My Dear Parents

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"In the Name of The Almighty, The Most Gracious and The Most Merciful"

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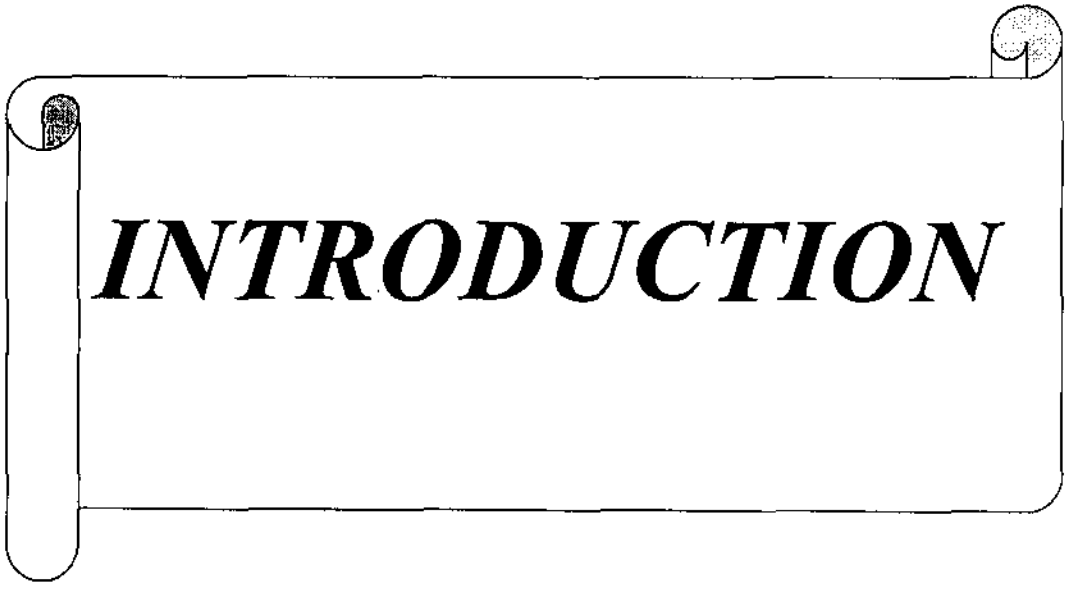


CHAPTER - I

INTRODUCTION

The history of the world is full of men who rose to leadership by sheer force of self-confidence , bravery and tenacity.

Mahatma Gandhi.

India has made long studies in agricultural development, growing from the position of an importer to that of a net surplus country within a matter of four decades, but on a few selected crops only. Agriculture continues to be the most important and single largest sector of the state's economy accounting for over one-third of the states income at present. According to the Agricultural Policy of the State Government, the state will recognize and develop agriculture as a worthwhile occupation capable of ensuring a decent living, dignity and social status to farmers. The intention is to restore and regain vitality and dynamism of Kerala's agriculture through judicious utilization of scarce resources of land, water, manpower and technology with focus on increasing production and productivity in a planned manner. Here the emphasis will be on creating and restricting infrastructure, input delivery, extension and research system to meet the requirements of small farmer who constitute the majority of the farming community.

Group formation is a pre-requisite for participatory approach (Mukherjee, 1997). Farmer participation comes when the farmers have an organisation to manage their resource at some level. Participation naturally flows from the farmer's organisation when it is effective (Maloney and Raju, 1994). Extension management by group brings out the best among the individuals of the institution by promoting democratic decision-making and interaction in its day-to-day management.

Farmers groups enable extension workers to work directly with farmers with the objective of understanding better the farmer's circumstances and influencing the research and extension policies and practices in order to come up with more effective research and extension programmes (Mattee & Lassalle, 1994).

According to (Arnaiz, 1995), farmer's organizations can enhance the effectiveness and efficiency of agricultural technology systems. Uphoff (1992) reported that farmer's organisations lead to sustainable development through mobilization of local resources and their regulated use.

Farmer groups have clear advantages and function efficiently. But not all groups run smoothly. Larger and more heterogeneous the group, the less likely is it that all members will regularly participate in-group discussions. There tends to be a few more articulate group members who seem to dominate most discussions (Norman *et al* 1988).

For any sustainable development of agricultural sector, farmer has to be the focus and the system should be built around them. Here comes the relevance of Self Help Groups (SHGs). A Self Help Group is a homogenous gathering of usually not more than 25 persons who join on a voluntary basis in order to undertake some common activity through mutual trust and mutual help. It is mainly concerned with the poor and it is for the people and of the people. Apart from inculcating socially desirable habits and ethics among members, SHGs serve the purpose of a moneylender, a development bank, a co-operative and a voluntary agency.

SHGs have been working in the field of micro-credit, health, rural and community development etc. The concept of SHGs was initiated by quasi-governmental and governmental agencies in Kerala a few years back. The core concept used by Vegetable and Fruit Promotion Council Keralam (VFPCK) for promoting the development of farmers is the 'Self Help Group' a voluntary unit of 15-20 cultivating farmers. Each SHG runs according to a set of mutually agreed norms.

KHDP

Kerala Horticulture Development Programme (KHDP) is a quasi-governmental organization that started its activities in the year 1993 with the financial support of European Commission and Government of Kerala.

The programme aims at enhancing and sustaining the income of participating farmers through hi-tech cultivation practices and appropriate marketing of horticultural crops. The entire programme activities are converged into neighbourhood SHGs of about 15-20 participating farmers. SHG farmers are organized at the site (Panchayat) level and in turn into pilot project (District) level. The farmers themselves are selected and inducted into SHG programme on clearly set criteria. Each SHG nominates three master farmers (persons who are trained later to take up lead roles) for production, credit and marketing respectively.

A revolving fund of Rs. 47 Crores (XLRI, 1998) is available to participating farmers through various banking institutions. The farmers of 15-20 SHGs pool their produce at a common collection center called Field Center (FC) for group marketing. Market information center is another concept of the programme through which farmer come to know about latest market process.

It has also set up a seed production unit and fruit processing plant in the state. Besides, the training given to the farmer by the programme is also considered to be superior. More than 200 extension staff-mainly professionals 22-28 years of age, nearly 60 percent of them women are every day out in the fields helping farmers to help themselves. As a testimony to the success of collective strength and farmer centered development, participating farmers are extending their activities beyond horticulture to their social life, boosting their self-confidence and making them better citizens.

VFPCK

The Vegetable and Fruit Promotion Council Keralam (VFPCK) is all set to improve the livelihood security of vegetable and fruit growers in Kerala by empowering them to carry out production, value addition and marketing of vegetables and fruits as a profitable venture in a sustainable way. The council is the successor organisation of Kerala Horticulture Development Programme (ICHDP), which was acknowledged as the best agriculture development project funded by European Commission in the country.

VFPCK is a pioneer of the comprehensive approach in the field. It integrates a whole range of essential supports including the supply of necessary inputs, research & development, extension, skill development, credit support, crop insurance, marketing, post-harvest handling, value addition, women empowerment etc. The emphasis on farmer participation at all stages is an important policy that makes the activities successful.

The farmer friendly training approach adopted by VFPCK is part of its office-less extension system. The cornerstone of the successful implementation of the Council's recommendations is the farmer members of it's Self-Help groups (SHGs)

Therefore the present study entitled viability of Self Help Groups in Vegetable and Fruit Council Keralam – A multidimensional analysis was formulated with the following specific objectives: -

1. To analyse the viability of Self Help Groups.
2. To find the factors responsible for the variation in viability among the groups
3. To study the economic performance of the groups as well as the members of the groups
4. To study the credit utilization and repayment by the respondents
5. To assess the technology adoption by the respondents

6. To assess and correlate with profile characters, the economic performance of the respondents

7. To assess and correlate with profile characters, the technology adoption by the respondents

8. To identify constraints faced by the Self Help Groups and suggestions for improvement.

Scope of the study

Scientific studies on the viability of Self Help Groups are very mush essential to reorient agricultural development programmes on the basis of objective assessment. This is a pioneering study, which aims at identifying the viable Self Help Groups functioning in VFPCK with reference to their technology adoption and economic performance. The study will help to eliminate the bottlenecks in the present setup of SHGs and strengthen the SHGs that are to be setup in the future. The results of the study will also help planners, policy makers and administrators in identifying viable Self Help Groups and strengthen them for sustainable agricultural development.

1.1 Limitations of the Study

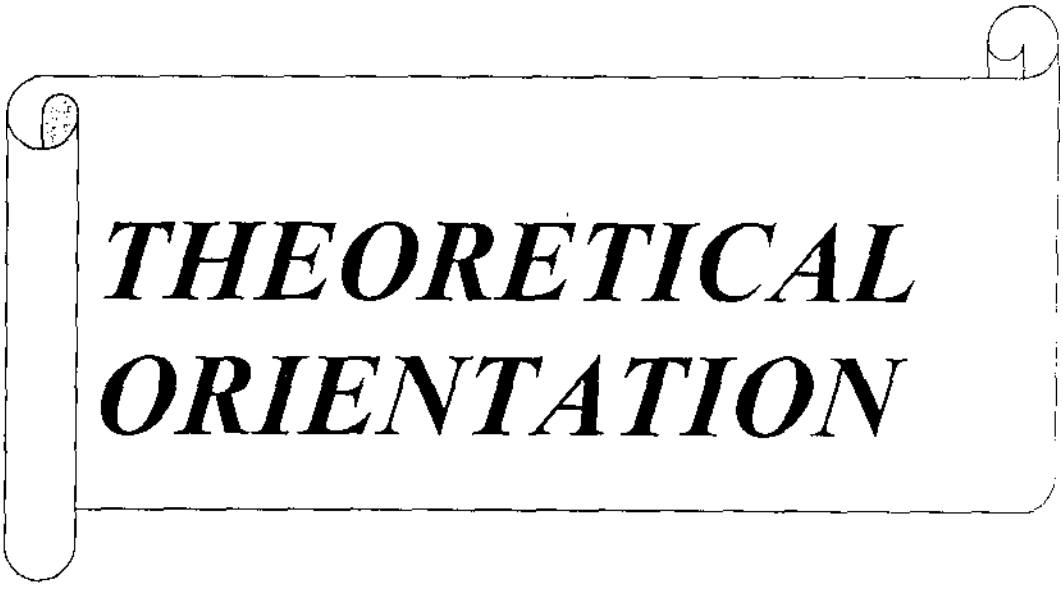
The concept of SHG differs from most other forms of associations. The concept shot into prominence only during the last two decades. As the present study was undertaken as a part of the requirement for the post graduate programme of the student researcher, there were constraints of time and money. Therefore only a few randomly selected SHGs were included in the study. So it may not be possible to generalize the findings of the study for the

entire state. Inspite of these limitations, every effort was made by the researcher to carry out the study as systematic and objective as possible.

1.2 Presentation of the study

The report of the study has been spread out under five chapters. The first chapter deals with Introduction, where in the statement of the problems, the objective, the scope and limitations of the study are discussed. The second chapter covers the review of the studies related to the present study. The third chapter relates to the details of methodology used in the process of investigation. The fourth chapter deals with the results of the study obtained and also the discussion on the results in detail. The fifth and final chapter presents the summary of the study and suggestions for future research. The references, appendices and abstract of the thesis are given at the end.

CHAPTER - II



CHAPTER – II

THEORETICAL ORIENTATION

A careful review helps the researcher in getting acquainted with the number and nature of studies related to the present study. The main objective of this chapter is to review the theoretical and the empirical information available from similar or at least related studies. The chapter is organized under the following headings.

2.1 Concept of viability

2.2 Concept of SHG

2.3 Importance of SHGs in agriculture

2.4 Economic performance of SHGs and the members of SHGs

2.5 Credit utilization of the members of SHGs

2.6 Credit repayment of the members of SHGs

2.7 Technology adoption of the members of SHGs

2.8 Profile characteristics of the farmers of SHGs

2.9 Constraints faced by the farmers of SHGs

2.10 Conceptual frame work of the study

2.1 Concept of viability

Bebbington (1991) reported the role of Grass-roots Supports Organizations (GSO) in rural development and their relations with the public sector to make them economically viable.

According to Sharma (1995), viability refers to the ability of a nation or an economy to operate, develop and survive, sometimes used in reference to a business, an industry, a market or a product.

FAO (1999) reported that the viability of Small Farmer Group Associations (SFGA) seems to depend most on its success in improving the economic conditions of individual members through better economic cooperation between member groups and in generating income for the running costs of the SFGA.

Nanda (2002) reported that the advantages for groups lie in their access to larger quantum of resources as compared to their corpus generated through different schemes of banking sector and a general improvement in the nature and scale of operations that would accelerate economic development and viability.

Singh *et al.* (2002) reported that the resource position and viability of the farmer groups reflected through investment was conspicuously different across the size groups by virtue of the size of business and usefulness of their investment in farm inventories. The large farmers were more progressive in adopting modern production technology.

Srinivasan (2003) used a spreadsheet financial model to identify key financial policy parameters that influence the performance and viability of SHGs whose primary activity is micro finance.

2.2 Concept of SHGs

According to Hagenbuch (1958) SHGs are mutual aid organizations formed by a group of people getting together to help each other and are essentially democratic in nature.

Kuhn (1985) defined SHG as grouping of people who desire to pursue common goals through joint actions and self help. He also defined SHG as organizations whose members have united on the basis of common interest to improve their economic and social conditions in order to be better able to pursue their paramount long-term aims.

The Royal Tropical Institute (1987) defined SHG as a membership organization or group, which implies that its risks, costs and benefits are shared among its members on an equitable basis and that its leadership and managers are liable to be called to account by the members for their deeds.

Verhagen (1987) defined SHG as an institutional framework for various individuals or households who have agreed to cooperate on a continuous basis in order to pursue one or more objectives.

Pathak (1992) observed that the SHG, being comprised of group of persons, gets empowered to solve most of their problems of non-functional nature, e.g. raw materials and input supply, marketing, better adoption of technology, education and training for realizing the human potential for development.

According to Rajasekhar (1993) the members should be homogenous in terms of the combined criteria of caste, economics and sex for effective formation of a SHG.

Rao (1994) defined SHGs as a means of raising the claim-making capacity of the rural poor for reaching out to such agencies as they are willing to work with and which can provide them with additional production resources. It also implies the development of their bargaining power to an extent that, such agencies cannot unilaterally impose their conditions and regulations upon the rural poor as passive recipients.

NABARD (1995) defined SHG as a homogenous group of rural poor voluntarily formed to save whatever amount they can conveniently save out of their earnings and mutually agree to contribute to a common fund from which to lend to members for productive and emergent credit needs.

Singh (1995) conceptualized SHG as an informal association of individuals which come together voluntarily for the promotion of economic and/or social objectives.

KHDP (1995) in their programme guidelines had identified three stages of formation of SHGs.

a. Group initiation/formation stage.
b. Building up/stabilization stage.
c. Self-helping stage.

According to Thundiyil (1995) women's SHGs are being promoted more actively as they form the major population under poverty.

A SHG is a homogenous group of not more than twenty-five individuals who have come together for greater economic and financial strength through mutual help (Anon, 1996)

According to Dwaraki *et al.* (1996) the goal of SHG is to pool together the strength of the weaker section and gear them towards developing a self-

reliant community. They also reported that in SHGs periodic meetings attendance were declared as compulsory. To acquire eligibility for financial assistance an attendance pre-requisite was fixed. In attending the periodical group meetings, remittance of saving amount or repayment of loan amount, the member was to be regular.

The Indian Bank in its guidelines (Anon, 1996) had identified two phases in the formation process of SHGs. Phase I is the study phase and phase II is the action phase which consists of four stages: a) preparatory stage b) settling down stage c) stabilization stage d) completion stage.

According to Panda and Mishra (1996) SHG members need to meet at regular intervals. This besides helping in creation of group bondage will ensure participation of members and democratic functioning of the group. It will help in group planning, proper management of funds, enable the members to resolve conflicts and exchange ideas and also ensure participation in decision making process. Non-attendance should lead to cancellation of membership automatically.

Roul (1996) observed that women were found to be dominant gender in most of the groups that were functioning well. It may take a long time for men and women joining hands as equal partners in a SHG, to become the order of the day in rural India. It is therefore necessary to allow gender-based distinction in promoting SHGs.

Srinivasan (1996) found that SHGs offer means by which the poor could have access to resources in their own right, without waiting for anyone and not by another person's mercy. This makes the people confident that by saving small amount over a period of time they could master resources to help each other in a big way. This gives them a feeling of being also in charge of their

own lives, they feel emboldened to conduct themselves and take a share of resources as a matter of right.

Dwaraki *et al.* (1996) described a self-help credit group as an unregistered body of people, preferably the disadvantaged who willingly contribute an agreed sum of money, which would be lent at a price for a short period as fixed by the group itself.

Krishnamurthy (1996) defined SHG as an organization formed by people for pooling their resources to help each other.

Roul (1996) defined SHG as an institutional framework for individuals or households who have agreed to co-operate on a continuing basis to pursue one or more objectives.

Anon, (1997) expressed that SHG group formation is complete when there exists

a) a constant membership of not more than 20 persons
b) a common understanding among members as to why they have come together and who are the members.
c) an initiative in regularly attending meetings
d) a high and shared participation in the meetings
e) free and open communication with feedback among members
f) oneness in decision-making
g) realization of the structure of the group
h) action on group decision
i) ongoing activity
j) a shared leadership of the group

Studies conducted by NABARD (1997) revealed that the perceived socio economic homogeneity was an important factor in the success of SHG formation.

According to Sreedharan (1997) the guiding principles for SHGs to be sustainable are:

i) Savings should be linked to credit savings first, credit next.

ii) The development of functional discipline and systems should be encouraged.

iii) SHGs should hold together regular meetings, once a week if possible.

iv) SHGs should begin with a simple book keeping system.

v) There should be basic by laws or rules.

vi) SHGs should promote saving mobilization.

vii) SHG members should be residents of the same area. should be homogeneous and should have at least five members.

viii) Group leader should be elected by the members, with the group functions or positions being rotated among members.

ix) Transparency in business operations and the overall conduct of group activities should be maintained at all times.

x) Basic training and guidance should be provided to the members of the SHGs.

xi) Autonomy of the SHGs should be respected.

xii) Group liability and peer pressure should be the substitutes for collateral.

xiii) Loans should be kept small initially and repayment made frequently and regularly.

xiv) Transaction cost should be kept to a minimum through simplified procedure and control.

xv) Commercial banks should be asked to provide appropriate advances or lines of credit to supplement the group's financial resources and to enable to lend to productive purposes.

Dodkey (1998) reported that under the SHG–bank linkage programme that was launched by NABARD in 1992, there are three linkage models.

1) Banks are directly linked with SHGs without the interventions of NGOs.
2) Banks are providing credit to SHGs and NGOs act as Self Help Promoting Institutions (SHPIs).
3) NGOs are acting both as SHPIs and financial intermediaries for channelising credit from bank to SHGs.

He also reported that the progress of linking SHGs with banks made rapid progress over the years mainly on account of low transaction cost, high percentage of recovery and mobilization of rural savings.

Karmakar (1998) defined SHG as an informal group of people where members pool their savings and re-lend within the group on rotational basis.

Thomas (1998) defined SHG as a homogenous group of rural poor voluntarily formed to save small amounts out of their earning which is convenient to all the members and agreed upon by all to form a common fund corpus for the group to lend its members for meeting their production and emergent credit needs.

Swarozgaris are the beneficiaries under the Swarnajayanthi Grama Swarozgar Yojana (SGSY). They can be either groups or individuals. SGSY lays emphasis on group approach, under which the rural poor are organized into SHGs and they are identified by BPL census (Anon, 1999).

The concept of SHGs in India comes from Grameen Bank of Bangladesh, which was founded by the noted economist, Md: Yunus in the year 1975. It provides large scale micro lending, provide more credit to the rural section than aggregate of all the other banks (Gupta, 1999).

Unnikrishnan (1999) opined that the very meaning of the word Samatha is social and economic equality. The main objective of Samatha Swayam Sahaya Sanghoms is the all round development of rural women who are living below poverty line and to free them from the clutches of moneylenders.

Gurumoorthy (2000) reported that SHGs generally had members not exceeding 20 and each group select a leader among its members called animator. The animator conducts two or three meetings every month in the evening hours, collect the saving of members ranging from twenty to hundred rupees and rotate the money to the needy members for various purposes at specific interest rate. He also reported that repayment from SHGs to banks is more than 90 percent whereas it was less than 35 percent under IRDP, which might be failure for the scheme.

2.3 Importance of SHGs in Agriculture

Geetha (1998) reported that in Vallisseri Haritha Sanghoms the cultivation from planning upto harvesting was done collectively by the members of the SHGs and they had decided to share their profit equally. Each member contributed Rs. 1000/- to the group and the members, who could not afford this amount, contributed their effort.

Hussain (1992) reported that under the guidance of officials, the unemployed youth of the Haritha Groups 'leased in' the fallow lands and started cultivating the vegetables.

Natarajan (1998) reported that Government of Kerala has targeted to produce at least five lakhs tonnes of vegetables and extended the vegetable cultivation to an area of 10,000 hectares additionally through SHGs called Haritha Sanghoms.

Basil (1999) reported that one of many group efforts initiated by self-help groups is participatory marketing. Farmers establish and manage their own markets with active participation in trade. Such farmers markets do not function parallel to the public markets but serve to make them more competitive and such markets are called field centers (FC).

Raghunath (1999) reported that Market Information Centers (MIC) set up by KHDP had enabled farmer's groups to improve their bargaining power. Besides, MIC also suggests product diversion signals by assessing market opportunities.

Sreedaya (2000) in her study on performance analysis of SHGs in vegetable production revealed that group leadership and need satisfaction with respect to KHDP SHGs and transparency and need satisfaction with respect to IVDP SHGs, had significant correlation with the extent of adoption of recommended practices in vegetable cultivation, planning, production and marketing.

Surendran (2000) in his study revealed that there is a need to promote effective group approach in governmental and NGO sector. In determining participation efficiency, components such as communication behavior, sharing responsibility, competitive spirit and group efficiency components such as productivity, equity, employment generation, group cohesion and sustained profit were found important while implementing participatory group approach in agriculture.

2.4 Economic performance of SHGs

Shastry (1959) in his study on economics of mixed farming found that the percentage of income and yield per acre was high on mixed farming units.

Meenakshi Sundaram (1964) reported that small farms have the highest percentage of income from milk enterprise indicating the suitability of mixed farming as a profitable economic enterprise to small farmers.

Katiyar and Ranjhan (1972) opined that dairy cows could provide a steady income from small and marginal crop farm and help them to become economically viable.

Rajput (1973) examined the economics of milk and crop production and found that the milk production enterprise accounted for 40 percent of the total net income, indicating the complimentary role of the livestock production of total net farm income.

Madalia and Charan (1975) found that the cost of maintenance of milch animals was lowest for landless and was highest for medium sized farms. They also indicated that net income from paddy and per milking animal was the highest in case of medium farms followed by the landless group.

Saunder *et al.* (1975) examined the economic performance of crop enterprises and dairying and the relative profitability dairying; Soybean and cotton enterprise. They found that inspite of increasing costs of production each of the enterprise showed a positive net return indicating their profitability.

According to Singh (1980) the output flow per unit of resource input is an outcome of the interaction of mutually reinforcing forces of agrarian structure, resource endowment and technology – the three resource structure

dimensions. Of these three dimensions, the technology is likely to have the most direct impact on economic performance.

Josh and Jha (1981) indicated that the earning from the land holdings of majority of the marginal, small and semi medium farmers alone were not adequately sufficient for the house hold of an average size round the year.

Puhazhendhi and Satyasai (2001) evaluated the performance of SHGs with special reference to social and economic empowerment. The findings of the studies revealed that the SHG, as an institution could positively contribute to the social and economic empowerment of the rural poor.

2.5 Credit utilization of the members of SHGs

According to Aggarwal (1971), 87% of the credit supplied is used for productive purposes and the rest 17% for unproductive purposes.

Sharma and Prasad (1971) stated that farmers are using more cash input for high yielding variety seeds, fertilizers, irrigation, and machinery and land development.

Bhaskaran (1978) opined that no significant relationship was observed between age, extent of holding, education, risk perception, perception of cost of innovation, perception of profitability, social participation, occupation and caste and their extent of adoption as well as their utilization of credit.

Kesavan (1999) reported that the farmers in SHGs of VFPCK have lived up to the expectations of farmers. Many of them have taken roles beyond farming including social, cultural and other spheres of life. Some of the additional activities taken up by the farmers include scholarships, farm exhibition awards, farmer magazines etc.

Birdar and Jayasheela (2000) reported that in the case of agricultural credit many farmers do not get adequate loans for the intended purposes. This has resulted in the misutilization of the sanctioned loans other than for the intended purpose. Proper supervision over the end use of the credit and other personal reminders through frequent field visits can be effective devices for checking mounting of overdues.

2.6 Credit repayment of the members of SHGs

Bhaskaran (1978) reported that Co-operative Bank has been preferred by the farmers for the adequate lending capacity, easier repayment as well as accommodative recovery procedures.

Desai (1982) stated that the data collected from sample farmers showed that the group guarantee scheme has a potential to demonstrate its demand advantage and also the supply advantage arising from the lower default risk.

Lali (1999) analysed the new trends in credit repayments and reported that together with the resourceful fruit and vegetable farmers of Kerala the KHDP has created a new trend of credit repayment in the state.

Birdar and Jayasheela (2000) stated that many empirical studies in agricultural credit revealed that loans are being utilized for other than specific purposes. The misutilization of loans increase burden on the borrowers because they are not in a position to generate enough income to repay the loans, which they have availed from the banks.

Malaiswamy and Sreenivasan (2001) made an attempt to assess the repayment and transaction cost in SHGs in the rural areas vis-à-vis the co-operatives functioning in Madurai district of Tamilnadu.

NABARD (2001) reported that the on-time repayment performance of SHG loan continued to be above 95 percent. The coverage of SHG banking is increasing, as it is highly profitable for banks.

Naithani (2001) reported that many studies mention about the Grameen Bank micro financing strategy, claiming a repayment rate of 99 percent, which is a matter of great surprise for a commercial bank having clientele of beggars, illiterates, widows etc., compared to commercial banks catering to the well to do.

Sharma (2001) determined the success of non-government organization in micro financing SHGs of rural poor. The study conducted in Himachal Pradesh found out that the repayment of the loans was 100 percent by all the categories.

Bhatia and Bhatia (2002) reported that Oriental Bank of Commerce launched the Grameen project in 1995 in two districts of North India with one of the districts reporting incredible recovery rate. Canvery Grameen Bank showed 100 percent recovery for the promoted SHGs. Branches of Tungabadra Grameen Bank involved with SHGs and recovered many of its overdue.

Jha (2002) reported that the repayment ethics among the borrower members of micro finance was invariably of higher order, as recovery performance in the case of selected micro finance institutions was observed to exceed 95-98 percent for all types of credit products.

Priya (2003) reported that the total renewals were the same as total repayments in the case of most SHGs whereas the number of defaulters is in the range one to four in all SHGs except some.

2.7 Technology adoption of the members of SHGs

According to Reddy (1997), adoption is a sequence of thoughts and actions, which an individual goes through before he finally adopts a new idea.

Balasubramanion (1982) reported that summer ploughing was adopted by majority of the farmers (92 percent). He further found that Sorghum raised as mixed crop with lablab was practiced by 85 percent of farmers.

Jayakrishnan (1984) observed that paddy growers showed medium level of adoption of low cost technologies.

Nanjaiyan (1985) reported that 64 percent of the farmers have medium level of adoption in cultivation of IR – 20 paddy.

Chauhan *et al.* (1987) consider adoption as the decision to make use of the technology, which has already taken up and not only initiated.

Nehru *et al.* (1988) studied the group management in vegetable cultivation under lab to land programme of Kerala Agricultural University, and revealed that there was an appreciable increase in the farmers adopting improved varieties of vegetable crops.

Ramachandran (1988) reported that summer ploughing and inter cropping were adopted by all the farmers while adoption level of other technologies vary due to a variety of reasons.

According to Babu (1995) about 25.22 percent of the farmers were in the habit of using polybags tied up on poles to ward of birds and rodents.

Manju (1996) reported that the adoption of Kumbom against rodents by the coconut farmers were 45.83 percent.

As observed by Preetha (1997) the practice of spraying a mixture of highly pungent pepper, garlic juice and asafoeitida powder at panicle emergence and grain setting stages of paddy against the rice bug was adopted by 27.4 percent of farmers.

2.8 Profile characteristics of the farmers of SHGs

2.8.1 Age

Prasad (1995) found that any new skill development is possible only among the younger age groups as their physical strength and their psychomotor skills are at their peaks.

Muller (1997) reported a positive and significant correlation between ages and need satisfaction of women in her study of the analysis of group characteristics of women's group and their role in rural development.

Sindhu (1997) identified a positive relationship between age and planning and marketing aspects of cut flower growers in Thiruvananthapuram District.

Manjusha (1999) reported that there is a no significant relationship between age and extent of adoption of recommended practices by the farmers in bitter gourd cultivation.

2.8.2 Annual Income

Badagaonkar (1987) reported a positive and significant relationship between annual income and management orientation of the farmers.

Rao (1989) said that there are many resources at the farm level that can be used more effectively on group basis. Technologies, which are very costly and uneconomic for individual farmer, can be used more economically at the group level.

NABARD (1995) identified that majority of the farmers of self help groups possessed low level of annual income.

Padmaiah *et al.* (1998) reported a positive and significant relationship between annual income and extent of adoption of recommended practices in groundnut cultivation.

2.8.3 Farm size

Jha and Shaktawat (1972) found that size of holding was not significantly related to adoption behaviour of farmers in his study.

Muller (1997) reported a non-significant relationship between farm size and group relationship of women.

According to the study conducted by Manoj (2000), total area under paddy was found to have positive relationship and significant correlation with adoption behaviour.

Surendran (2000) reported that large farm size resulted in more returns from farming which was conductive for higher group participation.

2.8.4 Experience in Vegetable Cultivation

Manjusha (1999) found a non-significant relationship between experience in bitter gourd cultivation and extent of adoption.

Sreedaya (2000) reported that experience in Vegetable Cultivation was positively and significantly correlated with need satisfaction among VFPCK SHGs.

Padmanabhan (1981) found negative association of experience with labour efficiency.

Sadhu and Singh (1989) found that experience was positively related to productivity of agricultural labourers.

Jhingan (1990) stated that with the repetition of the same work, one gets specialised in it. This specialisation helps him to do work in the best possible way, which improve the skill.

Muller (1997) reported positive and significant relationship between periods of group work and need satisfaction of the group members.

Manjusha (1999) found non-significant relationship between experience in bitter gourd cultivation and extent of adoption of recommended practices.

2.8.5 Increase in income after joining SHG

Puhazhendhi (2000) observed that estimated average post-linkage period net family income of an SHG member was two times more than that in the pre-linkage period. The estimated net incremental income was Rs. 2,424 – for all the groups and it was relatively more in good performance group (Rs. 2, 967) than average and poor performing groups (Rs. 1,650 and Rs. 1, 299/-) respectively.

Meera (2001) reported that training improves skill of members to do any particular work, leading to employment and increase in income. Training had a positive and significant relationship with increase in income.

2.8.6 Educational Status

Anithakumari (1989) reported positive and significant relationship between education and extent of adoption in her study on the transfer of technology on pulses and oil seeds in the Onattukara tracts of Kerala.

Alex (1994) reported that education was not associated with the role perception/role performance of labourers with regard to their participation in decision making with farmers in paddy production.

Ghosh (1995) found positive or more or less high relationship between educational status and group cohesiveness.

Muller (1997) reported negative and non-significant relationship between educational status of the respondent and the group interaction.

2.8.7 Cosmopoliteness

Ferraira *et al.* (1983) in their study indicated that cosmopolite farmers were more inclined to adopt new technology.

Siddaramaiah and Rajanna (1984) found that farmers with high Cosmopoliteness had significantly higher involvement in planning of various agricultural activities.

Gangadharan (1993) reported positive and significant relationship between Cosmopoliteness and extent of adoption of improved agricultural practices by pepper growers of Idukki district.

Muller (1997) found out negative and significant relationship between Cosmopoliteness and group leadership of women.

2.8.8 Innovativeness

Anithakumari (1989) defined positive and significant relationship between innovativeness and extent of adoption.

Gangadharan (1993) opined that innovativeness is the degree of an individual's interest to seek changes in farming techniques and to introduce such changes in his own farm operations when found practical and feasible.

Shanthy (1996) reported the positive and significant relationship between innovativeness and managerial efficiency and found that innovativeness act as an indicator of a person's evaluative perception of innovation with different dimensions.

2.8.9 Achievement motivation

Poerchezhian (1991) reported positive and significant relationship between achievement motivation and management orientation in his study on the analysis of entrepreneurial behaviour of farmers.

Sivaprasad (1997) reported positive and significant relationship between achievement motivation and extent of adoption of scientific practices in sericulture as well as in bee keeping.

Thomas (1998) found that achievement motivation was instrumental in persuading a person to perform better and this might be the reason behind the existence of significant correlation between achievement motivation and extent of adoption of watershed development programmes.

2.8.10 Economic motivation

Shanthy (1996) reported that earning money to meet day-to-day requirements is the prime motive of women labourers in rice farming and hence economic motivation has emerged as the most contributing variable to managerial efficiency of those farmwomen.

Sivaprasad (1997) found that economic motivation was an important character that persuades people to adopt improved practices that are proven worthy.

Thomas (1998) reported that the more one is motivated by economic ends, the more he will try to adopt the practices which are aimed at increasing sustainable returns.

2.8.11 Risk Orientation

Manju (1996) observed negative and non-significant relationship between risk orientation and extent of adoption.

Preetha (1997) observed positive and significant relationship between risk orientation and extent of adoption.

Sivaprasad (1997) reported that by imparting proper training orientation, the risk bearing ability of the individuals could be increased.

2.8.12 Credit Orientation

Jaleel (1992) observed positive and significant relationship between credit orientation and extent of adoption.

Nizamudeen (1996) observed that credit orientation behaviour of kuttymulla growers had prompted them towards the successful adoption of the cultivation practices.

Sindhu (1997) reported a non-significant relationship between credit orientation and conceptual skill of cut flower growers.

2.8.13 Information need perception

Rao and Satyanarayana (1992) reported that majority of the respondents acquired much information on banking procedures to secure loans followed by mode of disbursement of the loan.

Ranganathan (2001) reported that beneficiaries of nationalized banks needed maximum information about the mode of repayment at first position

followed by banking procedure to be followed to secure loans and interest rate prevailing in the bank on second and third position.

2.8.14 Social participation

Anantharaman (1991) reported a non-significant relationship between social participation and managerial efficiency of cassava farmers.

Muller (1997) found a positive relationship between social participation and group characteristics like group leadership, group motivation and interpersonal liking.

Manjusha (1999) reported a non-significant relationship between social participation and extent of adoption.

2.8.15 Training attended

Vashistha (1987) reported positive relationship of training with adoption behaviour.

Sivaprasad (1997) reported that majority of youth in sericulture and beekeeping had undergone trainings. Duration of training and the stipend given acted as incentives.

According to Ashaletha (2000), training was positively and significantly related to the awareness about NARP.

Parthasarathi and Govind (2002) reported that the knowledge level of trained farmers was much higher on biological and physical methods of IPM, identification of pests and predators and on economic threshold levels. This shows that the training on IPM had positive effect on farmers.

2.8.16 Market perception

Sreedaya (2000) reported that the farmers of KHDP SHGs are more aware of the different market trends and marketing channels through their 'credit' market farmers, field staff, market information center (MIC) etc and above all the frequent meetings at the field center.

Poerchezhian (1991) reported non-significant relationship between perception and management orientation.

Nizamudeen (1996) reported non-significant relationship between market perception and extent of adoption of recommended practices of kuttymulla growers.

2.8.17 Knowledge in Vegetable cultivation

Meera (1981) found significant difference in the level of knowledge about improved agricultural practices between trained and untrained farm women.

Sagar (1989) reported that majority of the respondents had medium knowledge about recommended practices of paddy cultivation.

Kanakasabhapathi (1998) found significant relationship between knowledge on the cultivation of important crops and training need of 'Irulas' of Attappadi.

Kesavan (1999) opined that the farmer SHGs in VFPCK have lived up to the expectations of farmers. Many of them have taken roles beyond farming including social, cultural and other spheres of life. Some of the additional activities taken up by the farmer groups include scholarships, farm exhibition awards, farm magazines, etc.

2.9 Constraints faced by the farmers of SHGs

Seshachar (1980) in his study depicted that lack of knowledge regarding spacing, application of farmyard manure and fertilizers and use of plant protection measures were the constraints in chilly cultivation.

Norman (1982) inferred that the problems in vegetable cultivation were high attack of pests and diseases high input cost and serious transportation problems.

Bony (1991) concluded in his study that high cost of plant protection chemicals, inadequate marketing, storage and post harvest facilities were the problems of commercial vegetable cultivation.

Sandhya (1992) observed that perishability, bulkness and seasonability in the production were some of the difficulties in marketing of vegetables.

Meera (1995) reported that the major constraint in the adoption of plant protection technology was the difficulty in finding the dosage of chemicals and difficulty in the selection of alternative chemicals.

Consumption of large amount of time and labour is a major constraint reported by Preetha (1997) in using chakram to dewater the rice fields.

Manjusha (1999) reported that 'high cost of material inputs' was the most important economic constraint in bitter gourd cultivation followed by 'high labour charge', 'price fluctuation of the product', 'inadequate credit facilities', 'high transport charges' and 'in adequate marketing facilities'.

Surendran (2000) reported that non-availability of suitable agricultural implements and machinery and lack of co-ordination of different activities were the major constraints experienced by farmers in following the group approaches in agriculture.

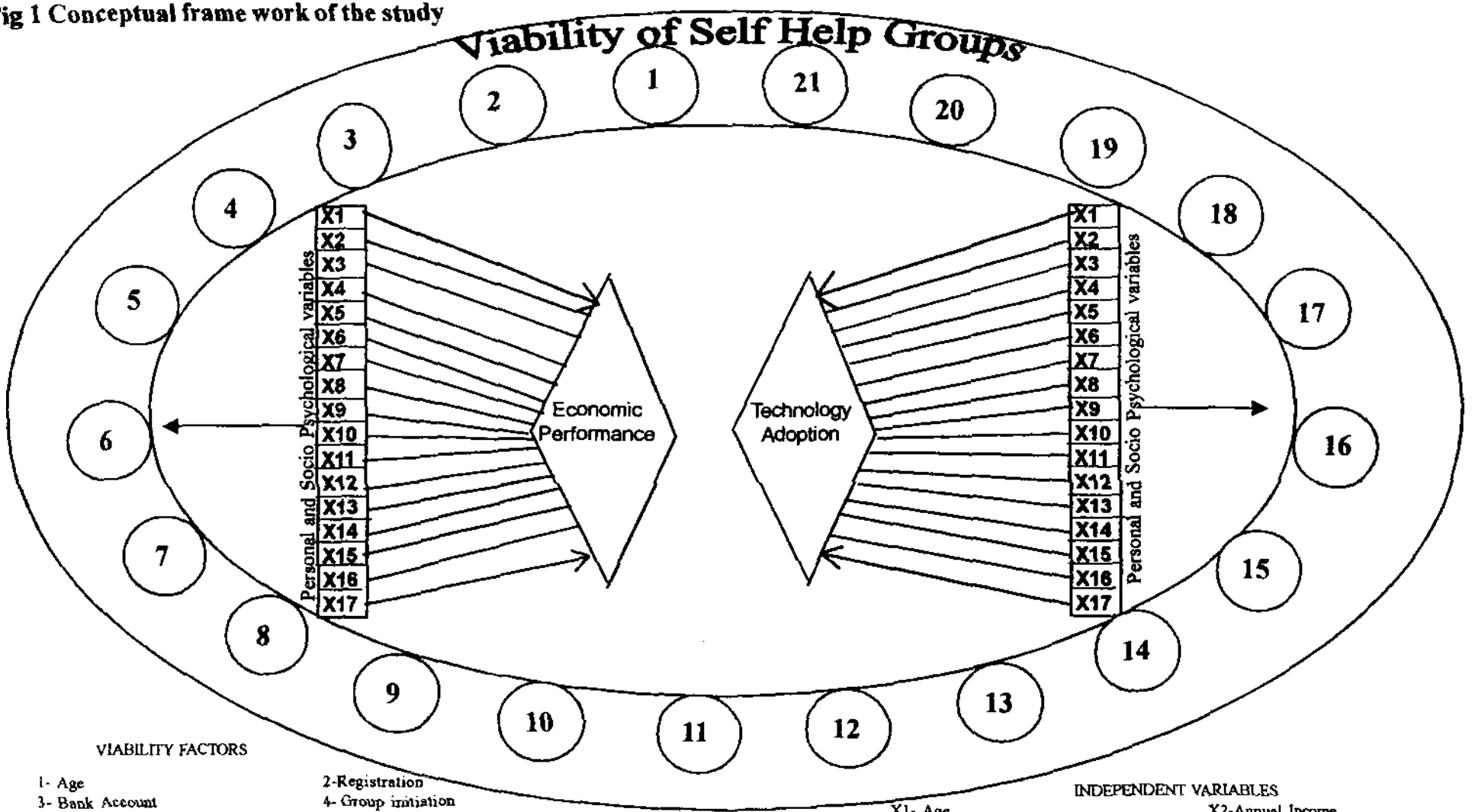
2.10.Conceptual framework of the study

The main objective of the conceptual framework being developed in this study is to provide an abstract view of the relation between various variables selected in the study. The dependent variables are economic performance and technology adoption of the farmers. These two variables are represented in two rhombuses inside the circle. A number of independent variables like personal and socio-psychological characters influence the dependent variables. These

relationships are depicted in the model as arrows connecting dependent variables with independent variables.

The outer circle represents the viability of the self-help groups, in which there are twenty-one factors, which are symbolically represented as circles. These twenty-one factors are hypothesized to determine the viability of the group. Economic performance and technology adoption along with the personal and socio-psychological characters determine the viability of the group.

Fig 1 Conceptual frame work of the study



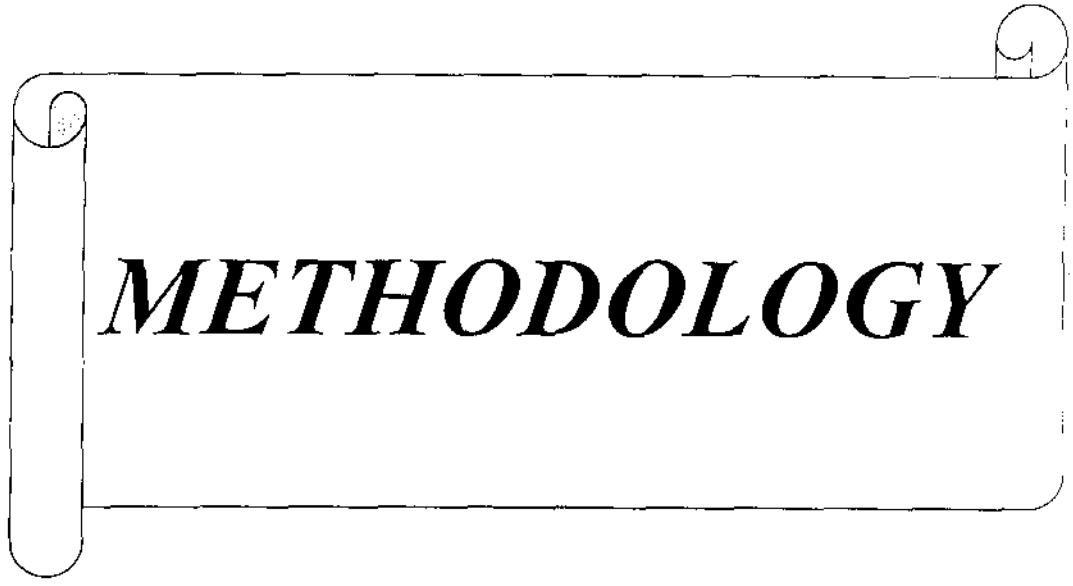
VIABILITY FACTORS

1- Age
2-Registration
3- Bank Account
4- Group initiation
5- Periodicity of meetings
6- Group membership
7- Number of families in group
8-Number of clans in group
9-Group activities
10-Elections
11-Women members
12-Literacy
13-Widowers / Diabled
14-Dominance of member
15-Non interested members
16-Turnover of member
17-External support
18- Group rules
19- Ratio of working class members
20- Skills
21- Misuse of aid

INDEPENDENT VARIABLES

X1- Age
X2-Annual Income
X3- Farm size
X4- Experience in Vegetable cultivation
X5- Increase in income after joining SHG
X6- Educational status
X7- Cosmopoliteness
X8-Innovativeness
X9-Achievement motivation
X10-Economic motivation
X11-Risk orientation
X12-Credit orientation
X13-Information need perception
X14-Social participation
X15-Training attended
X16-Market perception
X17--Knowledge in Vegetable cultivation

CHAPTER - III



CHAPTER –III

METHODOLOGY

The methodology followed in the study is presented under the following heads.

3.1 Research design

3.2 Locale of the study

3.3 Selection of sample

3.4 Operationalisation and measurement of dependent variables

3.5 Operationalisation and measurement of personal and Socio-psychological variables.

3.6 Constraints faced by the farmers of SHGs.

3.7 Suggestions of farmers and officials for improving SHGs.

3.8 Methods used for data collection.

3.9 Statistical tools used for the study.

3.1 Research Design

The main functional unit of VFPCK is its self-help groups and their viability study is important for analyzing their performance. This study was conducted adopting an ex-post facts research design. Ex-post facts research is systematic empirical enquiry in which the scientist does not have direct control over the variables because their manifestations have already occurred or because they are inherently not manipulatable (Kerlinger, 1973).

3.2 Locale of the study

This study was conducted among the vegetable growers of SHGs under VFPCK in Thiruvananthapuram district of Kerala who mostly cultivate cucurbits, cowpea and amaranthus . Among the nine districts where the VFPCK is functioning Thiruvananthapuram district was selected as the locale of the study for the following reasons.

1. Thiruvananthapuram is one of the districts with high vegetable cultivation under VFPCK. It is one of the best working areas of VFPCK.

2. VFPCK is conducting participatory training approach experiments in this district.

3. The district is having well-developed marketing system with the help of an International Airport for exporting and trading of vegetables.

4. The Agriculture Export Zone scheme implemented by the Kerala state government has its headquarters at Thiruvananthapuram district.

The study was conducted among the randomly selected SHGs of the VFPCK. There were 296 SHGs under VFPCK in Thiruvananthapuram district scattered over 18 field centers (Appendix I). From this total number of SHGs of VFPCK

present in Thiruvananthapuram district, 20 SHGs were randomly selected. The SHGs selected from different panchayats are given in Table 1.

Table 1. SHGs selected for the study from the panchayats.

Sl. No.	Name of SHGs selected	Name of the Panchayat
1	Machel	Malayinkeezhu
2	Veliyanoor	Nedumangadu
3	Poovathoor	Nedumangadu
4	Arayammakonam	Nedumangadu
5	Thachamkulam A	Chengal
6	Kovilvila – 1	Mylachal
7	Bhagavathipuram	Sreekaryam
8	Amachal	Kattakada
9	Kannankode	Balaramapuram
10	Elamanoorkonam	Balaramapuram
11	Kulangarakonam	Balaramapuram
12	Aranlokom	Kunnathukal
13	Charuvilakom, South	Kollayil
14	Plavoor	Kattakada
15	Pathuvilakom	Kazhakoottam
16	Kumbamvila A	Chengal
17	Kuttikadu	Kunnathukal
18	Muttakkadu	Venganoor
19	Pappanchani	Kalliyoor
20	Kaliyalvila	Kalliyoor

3.3 Selection of Sample

There were two categories of respondents

1. SHGs of VFPCK in Thiruvananthapuram district.

2. Individual members of the selected self help groups.

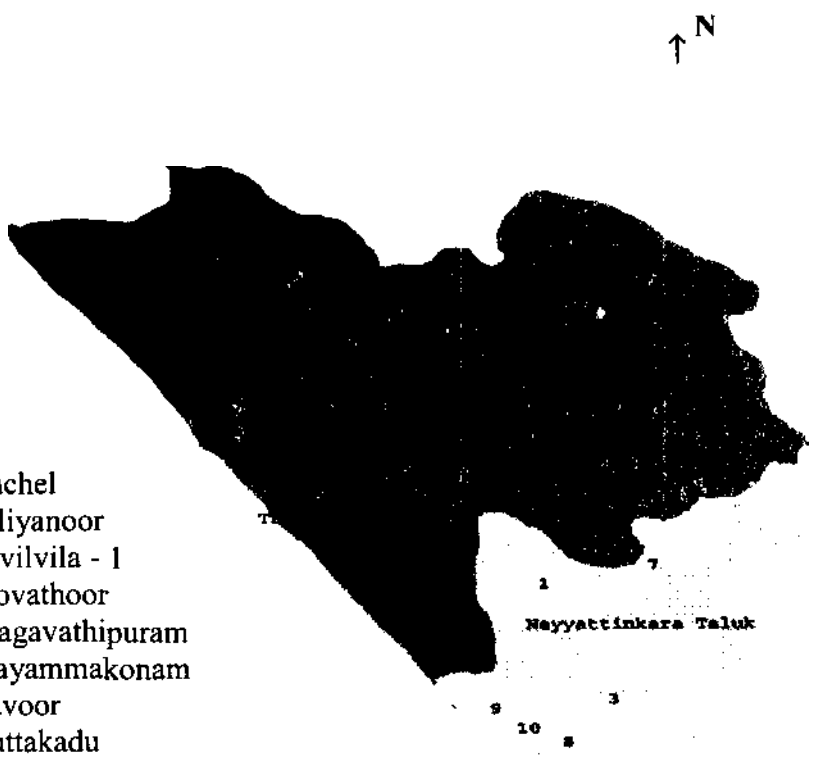
The first categories of respondents were the SHGs of VFPCK. From the total 296 SHGs under VFPCK in Thiruvananthapuram district, twenty SHGs were randomly selected and studied using the 21-point selection criteria developed by Sustainable Agriculture Center for Research and Development in Africa (SACRED – Africa) for analyzing the viability of SHGs. The second categories of respondents were the individual farmers selected from the top five and bottom five SHGs which were arranged in descending order according to the ranking of the viability score obtained, thus making the number of SHGs selected as ten. From the total 180 members present in the selected ten SHGs, fifty percent of them were randomly selected for studying their economic performance, technology adoption, credit repayment etc. Thus the sample size obtained was ninety. The ten SHGs selected according to the ranking along with the number of members present are indicated in Table 2 and Figure 2.

Table 2. SHGs selected for the study according to the ranking

Sl. No.	Name of SHGs selected	Number of members	Name of the Panchayat
1	Machel	18	Malayinkeezhu
2	Veliyanoor	17	Nedumangadu
3	Kovilvila – 1	20	Mylachal
4	Poovathoor	17	Nedumangadu
5	Bhagavathipuram	16	Sreekaryam
6	Arayammakonam	20	Nedumangadu
7	Plavoor	17	Kattakada
8	Muttakadu	22	Venganoor
9	Pappanchani	18	Kalliyoor
10	Kaliyalvila	15	Kalliyoor

Fig. 2 Location of the SHGs selected for the study

Thiruvananthapuram map



1. Machel
2. Veliyanoor
3. Kovilvila - 1
4. Poovathoor
5. Bhagavathipuram
6. Arayammakonam
7. Plavoor
8. Muttakadu
9. Pappanchani
10. Kaliyalvila

3.4 Operationalisation and measurement of dependent variables

3.4.1 Viability of the group

Viability refers to the potential of the groups in the areas of agricultural extension and marketing, by exploring and utilizing the manpower resources and other resources in a group, thus facilitating community development. A questionnaire of Twenty-one-point selection criteria developed by SACRED – Africa was given to the selected SHGs. According to this model, the best group scored 52 points, while the worst scored seven points. Only groups that scored more than 26 were taken up for consideration. The questionnaire is furnished in Appendix II.

3.4.2 Economic performance

Economic performance of the viable groups and individual members were measured. Economic performance of the member SHGs is determined based on the extent to which an individual member or a group performs in the total value of output through the total expenditure.

The procedure adopted by Surendran (2000) to measure the economic performance of graziers was used in the present study with slight modification.

Economic performance index of a respondent was measured by working out the ratio of the value of total output to total expenditure incurred. The economic performance in the present study was restricted for only a period of one financial year and three crops were taken into consideration in computing the total output and expenditure.

The total value of output and total expenditure were calculated for different crops on the farm. Accordingly Economic Performance Index (EPI) was obtained by using the formula:

$$E.P.I = \frac{\sum_{i=1}^{k} P_i Q_i}{\sum_{i=1}^{k} C_i} \times 100$$

Where $i = 1, 2 \ldots\ldots\ldots k$ refers to crop enterprise

P_i = the price per unit of the product of the i^{th} crop.

Q_i = quantity of output of the i^{th} crop

C_i = total expenses incurred on the i^{th} crop

In the present study, the credit repayment capacity of the group is taken as the indicator of its economic performance. Credit repayment of the groups was measured using Recovery index, Thrift credit ratio and Outstanding credit ratio.

3.4.3 Credit utilization behaviour

It denotes the level of utilization or how much of amount availed through micro credit facility is actually spent for the total field practices. Simple check method using a frequency table was given to the respondents. The frequency table had details of total credit availed by the farmer through SHG and the total amount he spent on the different practices identified in scientific cultivation. If the farmer utilizes the whole amount or more than the credit he availed for cultivation, utilization was full; and if not, utilization was partial.

3.4.4 Credit repayment behaviour

a) At SHG Level

It indicates how much the SHGs consider micro credit as beneficial to the linked bank and also the borrower. Three factors were calculated and compared for each SHG.

$$1.\quad \text{Recovery Index} = \frac{\text{Total Recovery}}{\text{Total Lending}}$$

$$2.\quad \text{Thrift Credit Ratio} = \frac{\text{Total Renewal}}{\text{Total Lending}}$$

$$3.\quad \text{Outstanding Credit Ratio} = \frac{\text{Total Default}}{\text{Total Lending}}$$

b) At respondent level

At farmer level, repayment behaviour of micro credit refers to the timely and complete repayment of the amount of the micro credit availed. It is measured as complete repayment, partial repayment or non-payment with a score of three, two and one respectively. If beneficiary, based on the VFPCK records, pays the complete amount back then the repayment is complete. If the beneficiary failed to repay any amount then it is referred as non-repayment or the respondent as a defaulter at the end of one year from issue of loan.

3.4.5 Technology adoption behaviour of Vegetable growers

Adoption behaviour regarding vegetable cultivation technologies is operationalised as the extent to which the respondent in vegetable cultivation practiced the recommended technologies that are popularized through extension missionaries of VFPCK.

In the present study, the extent of adoption was measured by using the method adopted by Ramachandran (1992) with slight modification. Here the extent of

adoption means the degree to which the respondent had actually adopted the selected practices. Based on the discussions with VFPCK field officers in charge of PTD. ten practices were identified and from that seven practices relevant to vegetable cultivation were selected for the study. The selected seven practices are listed out in Appendix III. Those farmers who fully adopted the technology were given a score of two and those who did not adopt the technology were given a score of zero. Those farmers who had partially adopted or improperly adopted the technologies were given a score of one.

3.5 Operationalisation and measurement of personal and Socio - Psychological variables.

Based on the objectives, review of literature, discussion with experts and observation made by the researcher, a list of 30 personal and socio-psychological characteristics were identified along with their operational definitions and sent to 20 judges for eliciting their relevancy on a five-point continuum ranging from 'most relevant' to 'least relevant' (Annexure). The judges were drawn from the officials of VFPCK.

The scores where assigned as follows

Response	Score
Most relevant	5
More relevant	4
Undecided	3
Less relevant	2
Least relevant	1

The total score obtained for each character was worked out. The variables having a score of 75 percent and above were selected. Thus the personal and Socio-psychological variables selected were: -

1. Age
2. Annual income
3. Farm size
4. Experience in vegetable cultivation
5. Increase in income after joining SHG
6. Educational status
7. Cosmopoliteness
8. Innovativeness
9. Achievement motivation
10. Economic motivation
11. Risk orientation
12. Credit orientation
13. Information need perception
14. Social participation
15. Training attended
16. Market perception
17. Knowledge in Vegetable cultivation

3.5.1 Age

Refers to the number of calendar years completed by the farmer respondent at the time of interview.

Scoring pattern adopted by Priya (2003) was used in the study as given below:

Sl. No.	Age	Score
1	Up to 35 Yrs.	1
2	36-50 Yrs.	2
3	Above 50 Yrs.	3

3.5.2 Annual income

Refers to the total earning of all the members of the family of the respondent for one year. This was obtained by adding the income earned by all the adult members of the family and income from the land and crops for one year. The variable was measured by directly asking the respondents about the total land possessed by them. The scoring pattern followed in this case is given below.

Sl. No.	Income (Rs.)	Score
1	Up to 2000	1
2	2001 to 5000	2
3	5001 to 10,000	3
4	10,000 to 20,000	4
5	Above 20,000	5

3.5.3 Farm size

It was measured as the extent of area under vegetable cultivation in cents. The following scoring pattern was employed in this case as done by Priya (2003).

Sl. No.	Size of holding	Score
1	Up to 25 cents	1
2	26 – 50 cents	2
3	51 cents to 1 acre	3
4	1.01 to 2 acres	4
5	Above 2 acres	5

3.5.4 Experience in vegetable cultivation

Refers to the total number of years the respondent had been engaged in vegetable cultivation.

The method adopted by Sreedaya (2000) was used in this study with slight modification. The scoring procedure was

Sl. No.	Experience	Score
1	Up to 5 yrs.	1
2	6 to 10 yrs.	2
3	11 to 25 yrs.	3
4	Above 25 yrs.	4

3.5.5 Increase in income after joining SHG

Refers to the increase in income after joining SHGs and availing credit for one year.

The scoring procedure followed by Sreedaya (2000) was used to measure this variable.

Sl. No.	Increase in Income (Rupees/Annum)	Score
1	Up to Rs. 1000/-	1
2	Rs. 1001/- to Rs. 2000/-	2
3	Rs. 2001/- to Rs. 3000/-	3
4	< Rs. 3000/-	4

3.5.6 Educational status

Refers to the extent of formal education achieved by the respondent. Educational status was measured by using scoring pattern adopted by Sreedaya (2000) with slight modification. The scoring pattern is as follows:

Sl. No.	Items	Score
1	Illiterate	1
2	Can read and write	2
3	Primary School	3
4	Middle School	4
5	High School	5
6	College	6
7	Professional degree	7

3.5.7 Cosmopoliteness

Refers to the tendency of the farmers to be in contact with outside village on the belief that all the needs of an individual cannot be satisfied within his own village.

The scoring pattern adopted by Priya (2003) with suitable modifications was used to measure Cosmopoliteness. The scoring pattern is as given below:

Sl. No.	Items	Score
I	**Frequency of visit to nearest town**	
1	Twice or more in a week	5
2	Once in a week	4
3	Once in a month	3
4	Seldom	2
5	Never	1
II	**Purpose of visit**	
1	All visit related to his / her farming	4
2	Some visit related to his / her farming	3
3	Other purposes	2
4	No purpose	1
III	**Membership in organization out side village**	
1	Office bearer	3
2	Member	2
3	No membership	1

3.5.8 Innovativeness

Refers to the degree to which the respondent was relatively earlier in applying new ideas.

The procedure followed by Sreedaya (2000) was used to measure innovativeness with slight modification. In this procedure a question was asked as to

when the farmer would like to adopt an improved practice in farming. The response was scored as follows:

Sl. No.	Response	Score
1	As soon as it is brought to my knowledge	4
2	After I had seen other farmers tried successfully in the farm	3
3	I prefer to wait and take my own time	2
4	I am not interested in adopting improved practices	1

3.5.9 Achievement motivation

Refers to the striving of farmers to do good work and attain a sense of accomplishment.

It was measured by applying the achievement motivation scale adopted by Surendran (2000). The scale consisted of five incomplete sentences each having three choices and the respondents have to choose answers felt appropriate. One of the choices indicated high achievement motivation. Farmers who responded with proper choice for each of the five sentences were given a score of 'two' and for other choices 'one' each. Summing up the scores obtained for all the five sentences, the respondent's achievement motivation score was obtained.

3.5.10 Economic motivation

Refers to the extent to which a farmer is oriented towards profit maximization and relative value he places on monetary gains.

The scale adopted by Sreedaya (2000) was used to measure economic motivation. The scales consisted of six statements of which fifth and sixth were negative. Each statement was provided with five – point response categories namely

'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with scores of 5,4,3,2 and 1 for positive statements and 1,2,3,4 and 5 for negative statements formed the score for economic motivation.

3.5.11 Risk Orientation

Refers to the degree to which the farmer is oriented towards encountering risks and uncertainty in adopting new ideas in farming.

It was measured using the scale adopted by Priya (2003). The scale consisted of six statements of which one statement was negative. The scoring was on a five – point continuum as 'strongly agree (5)', 'agree (4)', 'undecided (3)', 'disagree (2)' and 'strongly disagree (1)' for positive statements and was reversed in the case of negative statements. The sum of the scores of each statement is the score of the risk orientation of the respondent.

3.5.12 Credit Orientation

Refers to the orientation to avail credit by the respondent.

It was measured using the scale adopted by Priya (2003). The scale consisted of five items. The first and last items where measured in 'Yes' or 'No' response with scores 'two' and 'one' respectively. The second item was measured on a four – point continuum as 'very difficult', 'difficult', 'easy' and 'very easy' with scores 'one', 'two', 'three' and 'four' respectively. The third item was measured on a four – point continuum as 'very badly', 'badly', 'fairly' and 'very fairly' with scores 'one', 'two', 'three' and 'four' respectively. Fourth item was measured on a four – point continuum of 'strongly agree', 'agree', 'disagree' and 'strongly disagree' with scores of 'four', 'three', 'two' and 'one' respectively. Summation of these scores of all the items was the credit orientation score of the respondent.

3.5.13 Information need perception

It refers to the perception of respondents about the degree of information respondent wanted to know about the micro credit facilities before availing it. It was measured using the scale followed by Priya (2003). The scale consisted of 7 items. The scoring was on a five - point continuum as 'Most needed' (4), 'Needed' (3), 'Some what needed' (2), 'Less needed' (1) and 'not needed' (0). Mean score was calculated and arranged to ranks for each respondent.

3.5.14 Social participation

In this study, social participation was measured using the scale used by Meera (2001). This scale was having two dimensions namely membership in organizations and participation in organizational activities. The scores were assigned as follows:

1. For membership in organization

No membership in organization	0
Membership in each organization	1
Office bearer in each organization	2

2. Frequency of participation

Never attending any of the meeting	0
Sometimes attending meetings/activities	1
Regularly attending meetings	2

The scores obtained by a respondent on the above two dimensions were summed up across each item for all the organizations which gave his social participation score.

3.5.15 Training attended

It is defined as the number of trainings in various production activities undergone by the respondent during the last three years. The scoring procedure followed by Meera (2001) was used with slight modification.

Sl. No.	Trainings undergone in production activity	Score
1	One training	1
2	Two trainings	2
3	Three or more trainings	3

3.5.16 Market perception

Refers to the capacity of the respondent to identify the market trend to sell the produce for greater returns.

It was measured by adopting the procedure followed by Sreedaya (2000). The method consisted of scoring the responses obtained to selective questions presented to the respondents to elicit their perception of the market for the produce. The questions and the scoring procedure adopted were as follows:

1. Do you think a farmer will be able to sell the produce if he increases the production by adopting the recommended practices?

   Yes - 1
   No - 0

2. Do you think that produce of the crop cultivated according to the recommended practices will fetch good price compared to those raised under traditional methods?

Low price	-	0
Same price	-	1
High price	-	2

3.How difficult it will be to dispose off the produce of the crop cultivated following the recommended practices?

Very difficult	-	0
Difficult	-	1
Easy	-	2
Very easy	-	3

The score obtained by the farmer in each of the item questions were added up to form his market perception score.

3.5.17 Knowledge in Vegetable Cultivation

The knowledge of farmers was tested using a simple teacher made test developed for the purpose. Based on review of literature, a list of 30 questions related to vegetable cultivation was prepared. These questions were further edited to avoid ambiguity and finally a list of eight questions were selected, to which the respondent had to answer. A score 'three' was given to the correct answer, 'two' for partially correct answer and 'one' for wrong answer. The sum of the scores obtained for all the items indicated the knowledge score of the respondent.

3.6 Constraints faced by the farmers of SHGs

The constraints faced by the farmers of SHGs were identified. In the present study, constraint is operationalised as those items or difficulties or problems faced by the members of SHG which hinder the successful cultivation of vegetables.

Based on the review of literature and discussion with officials of VFPCK and pilot study conducted by the researcher, a list of constraints were prepared for VFPCK SHGs. The members of SHGs were asked to record their agreement or disagreement regarding the relevancy of these constraints as hindering the functioning of SHGs. The agreement was given a score of 'one' and disagreement was given a score of 'zero'. The total frequency of agreement for each constraint was found out and the percentage of agreement of each constraint was worked out. Based on the percentage the constraints were ranked.

The group members were also asked to record other constraints, which they felt important other than those listed. The constraint with the first rank number was considered as the most serious one followed by others in the order of increasing rank order.

3.7 Suggestions of farmers and officials for improving SHGs

Open-ended questions were included in the schedule and questionnaire for farmers and officials respectively in order to indicate their suggestions for improving SHGs.

3.8 Methods used for Data Collection

The data were collected using the pre-tested interview schedule developed for the study. The interview schedule prepared in English was translated into Malayalam before administrating to the respondents.

To study the constraints faced by the farmers of SHGs, separate questionnaire was prepared.

3.9 Statistical tools used for the study

The collected data were analyzed using the following statistical tools.

3.9.1 Mean

The respondents were classified into categories based on scoring pattern into Low, Medium and High groups for the variables selected based on the mean scores after statistical analysis

3.9.2 Percentage

To make simple comparison, percentage analysis was done.

3.9.3 Correlation analysis

The extent of variation and relationship between variations of variables studied were determined by correlation analysis.

3.9.4 Principal component analysis

The components determining group efficiency can be represented by means of measurements over a number of factors. By principal component analysis, it is possible to concentrate on those factors, which are responsible for the maximum variation between the groups. The total variability present in

the data are divided into different components equal to the number of factors such that each component is a linear combination of the different factors. These combinations (or functions) are called principal components.

The procedure for finding these functions is by applying orthogonal transformation to the original set of variables (Hotelling, 1933). Here a multidimensional data set is reduced to a space of low dimensions.

The first linear combination obtained will have the maximum variation; the second has the next maximum variation and so on.

CHAPTER - IV

RESULTS AND DISCUSSION

CHAPTER - IV

RESULTS AND DISCUSSION

This chapter deals with the results and discussion based on the analysis of data obtained in the study. The results and discussion are presented keeping the objectives of the study in mind. The study was conducted among ninety farmers of ten SHGs in VFPCK of Thiruvananthapuram district selected by viability ranking using 21-point selection criteria.

4.1 Profile description of the groups and its members

4.1.1 Distribution of the SHGs based on viability criteria.

4.1.2 Distribution of viability components based on their variability in group viability.

4.1.3 Distribution of the respondents based on their profile characteristics.

4.1.4 Distribution of the respondents based on their economic performance and their relationship with the profile characteristics.

4.1.5 Distribution of respondents based on their technology adoption behaviour and its relationship with the profile characteristics.

4.1.6 Credit utilization behaviour of the respondents.

4.1.7 Distribution of the groups and the farmer respondents based on their repayment behaviour.

4.1.8 Empirical model of the results.

4.2 Constraints and suggestions

4.2.1 Constraints faced by the farmers of SHGs.

4.2.2 Suggestions for improving the SHGs.

4.1 PROFILE DESCRIPTION OF THE GROUPS AND ITS MEMBERS

4.1.1 Distribution of the SHGs based on Viability Criteria

According to SACRED Africa, the 21-point selection criteria can be used for identifying and selecting the viable and sustainable groups to work with in facilitating community development. The groups having scores more than 26 points are taken up for consideration and possible capacity building. These criteria are utilized for selecting viable SHGs from VFPCK.

Out of the 20 SHGs studied, all the groups had a score between 30 and 40. The core concept used by VFPCK for promoting the development of farmers is the Self Help Group.

4.1.1.1 Distribution of the SHGs based on the age of the group

Out of the twenty SHGs, ten SHGs have the age of more than six years and 30 percent of SHGs have the age between 4-6 years as can be seen from Table 3. There were no SHGs coming under the age of one year. Most of the Self Help Groups are still in the process of consolidation and strengthening for VFPCK, the SHGs are the basic local institutional units for introducing project interventions in horticulture.

Table 3: Distribution of the SHGs based on the age of the group (n=20)

Sl. No.	Age of Group	Frequency	%
1	1	0	0
2	2 - 3	4	20
3	4 - 6	6	30
4	> 6	10	50
	Total	20	100

4.1.1.2 Distribution of the groups based on registration

The VFPCK is the successor organisation of Kerala Horticulture Development Programme (KHDP), which was acknowledged as the best agriculture development project funded by European Union in the country. The corner stone of the successful implementation of the council is its Self Help Groups (SHGs) of farmer members, who voluntarily join together on neighbourhood principle and have some marketable surplus produce. Around fifty five percent of the groups are registered for their activities and functioning as given in Table 4.

Table 4: Distribution of the groups based on registration (n=20)

Sl. No.	Registration of Group	Frequency	%
1	No	9	45
2	Yes	11	55
	Total	20	100

4.1.1.3 Distribution of the groups based on bank account

The maintenance of accounts in bank represents the orderly functioning of groups with respect to their earnings and savings. This helps in the evaluation of group performance in monetary terms, accounting and auditing. It is seen from Table 5 that seven SHGs maintained more than one account in banks. These accounts can be used as rolling fund or for operational expenses.

Table 5: Distribution of the groups based on bank account (n=20)

Sl. No.	Bank Account	Frequency	%
1	No	3	15
2	Yes	10	50
3	More than 1 account	7	35
	Total	20	100

4.1.1.4 Distribution of the groups based on group initiation

Group initiation represents the initiative taken by the number of members in the formation of the group. The members should have an interest for the formation of the group. Interdependence of the members is needed for this. Muller (1997) reported that higher age, educational status and social participation might have created a better awareness among the members about their role in the group and they try to help each other for the prosperity of the group. It was observed that mostly five to ten members were found to take initiative in the formation of the groups in sixty five percent of the SHGs. The details are shown in Table 6 .

Table 6: Distribution of the groups based on group initiation (n=20)

Sl. No.	Group Initiated by	Frequency	%
1	1 member	0	0
2	2 – 4 members	0	0
3	5 -- 10 members	13	65
4	> 10	7	35
	Total	20	100

4.1.1.5 Distribution of the groups based on frequency of meetings

It is seen from the Table 7 that 80 percent of the group members held meeting in every month. The group, which met every month, was dealing with marketing aspects and so had to take more decisions and evaluate it. Members felt it sufficient for money transactions and to take decisions on group functioning. Similar social status of members, more informal relationship among members and less interference of politics in group's decision-making and existence of flexible rules and regulations in implementing group decisions will reduce conflict situations as reported by Surendran (2000).

Table7: Distribution of the groups based on frequency of meetings (n=20)

Sl. No.	Frequency of meetings	Frequency	%
1	None	0	0
2	Every 6 Months	3	15
3	Every 3 Months	1	5
4	Every Month	16	80
	Total	20	100

4.1.1.6 Distribution of the groups based on membership

Self Help Groups run according to a set of mutually agreed norms. SHG membership gives farmers access to credit and advice from VFPCK staff; but benefits have gone beyond production related aspects. As can be observed from Table 8, out of 20 SHGs. 17 SHGs (85 percent) showed the membership of 16 – 19 members and 15 percent of the groups showed 10 – 15 members. It has been found that even when members

believed in diverse political ideologies, or belonged to different castes or religions there was negligible interference on the functioning of the group.

Table 8: Distribution of the groups based on membership (n=20)

Sl. No.	Group Membership	Frequency	%
1	6 – 9	0	0
2	10 – 15	3	15
3	16 – 29	17	85
4	> than or equal to 30	0	0
	Total	20	100

4.1.1.7 Distribution of the groups based on the number of families in the group

The number of families in the group will determine the group cooperation and interdependence. The members can regularly meet with each other and discuss how to tackle a common problem, which of course increases the team spirit of its members. This is supported by Metha (1989) in his studies. It is seen from Table 9, that out of 20 SHGs, 11 SHGs showed more than 10 families in the group.

Table 9: Distribution of the groups based on the number of families (n=20)

Sl. No.	No. Of Families	Frequency	%
1	1	2	10
2	2 – 5	2	10
3	6 – 10	5	25
4	> 10	11	55
	Total	20	100

4.1.1.8 Distribution of the groups based on clans in group

It is seen from the Table 10 that no SHGs had more than six clans in the group. Thirteen SHGs showed only one clan in the group. Heterogeneity in the group will affect the group co-operation and interdependence.

Table 10: Distribution of the groups based on Clans in group (n=20)

Sl. No.	Clans in group	Frequency	%
1	1	13	65
2	2 – 5	7	35
3	6 – 10	0	0
	Total	20	100

4.1.1.9 Distribution of the groups based on group activities

The group interaction and interest among the members of the group determines the group activities. The members were mutually agreeing to compromise differences and co-operate. The master farmers or leadership positions were rotated for ensuring that all members get the training facility and are able to participate with equal responsibility. Ten SHGs showed one to two frequent activities. Another 30 percent showed more than one continuous activity. (Table 11)

Table 11: Distribution of the groups based on group activities (n=20)

Sl. No.	Group activities	Frequency	%
1	None	0	0
2	One – off activity	4	20
3	1 – 2 frequent activities	10	50
4	> 1 continuous activity	6	30
	Total	20	100

4.1.1.10 Distribution of the groups based on elections

All the members were of the opinion that election results in the selection of appropriate leaders for better performance of the group activities. The members had a right in selecting the leaders. Eighteen of the SHGs held an election once in three years. (Table 12).

Table 12: Distribution of the groups based on elections (n=20)

Sl. No.	Elections	Frequency	%
1	No elections in more than 3 years	0	0
2	One election in 3 years	18	90
3	One election every year	2	10
	Total	20	100

4.1.1.11 Distribution of the groups based on women members

The majority of the members present in the group were male members. Sixteen SHGs showed membership with no women and two-third women members were found in four SHGs as shown in Table 13. In some SHGs, the women members are actively involved in the marketing, field and administration activities.

Table 13: Distribution of the groups based on Women members (n=20)

Sl. No.	Women Members	Frequency	%
1	No Women	16	80
2	50% are Women	0	0
3	Two-third Women	4	20
	Total	20	100

4.1.1.12 Distribution of the groups based on Literacy

According to SACRED-Africa, groups with high literacy percentage were given a low score and the groups having lower literacy percentage were given a high score. It is seen from the Table 14 that 75 percent of the SHGs showed 100 percent literacy and only four SHGs showed 50 percent literacy.

Table 14: Distribution of the groups based on Literacy (n=20)

Sl. No.	Literacy	Frequency	%
1	All members literate	15	75
2	50% of members literate	4	20
3	25% of members literate	1	5
4	All illiterate	0	0
	Total	20	100

4.1.1.13 Distribution of the groups based on widowers/disabled

Two groups had one to three disabled members. There was no disabled members or widowers in eighteen SHGs. The SHGs with disabled members or widowers functioned normally like other SHGs. The disabled members and widowers took active participation in the working of SHGs. (Table 15).

Table 15: Distribution of the groups based on widowers/disabled (n=20)

Sl. No.	No. of widowers/disabled	Frequency	%
1	None	18	90
2	1 – 3	2	10
3	More than 3	0	0
	Total	20	100

4.1.1.14 Distribution of the groups based on dominance of group members

The Table.16 shows the number of group members, who have active and constant involvement in group activities like marketing, training and credit utilization. This is an indicator of number of members who dominate a group. In 95 percent of the 20 SHGs studied, 1 – 3 members dominated the group. Only in 1 of the SHGs under study had a domination of 4 – 6 members. This is consistent with the social principle that only a few people take leadership or initiative in a group.

Table 16: Distribution of the groups based on dominance of group members (n=20)

Sl. No.	No: of active members	Frequency	%
1	1 – 3 members	19	95
2	4 – 6 members	1	5
3	> 6 members	0	0
	Total	20	100

4.1.1.15 Distribution of the groups based on non-interested members

The success of any group depends on the interest of group members. Only if all the members show whole hearted, active participation and mutual support, group activities would succeed. A group with majority of non-interested members would become dysfunctional or cease to function fully. Out of the 20 SHGs studied, 5 SHGs showed more than 50 percent non-interested members and in 15 SHGs, non-interested members were less than 50 percent as seen from Table 17.

Table 17: Distribution of the groups based on non-interested members (n=20)

Sl. No.	% of non-interested members	Frequency	%
1	More than 50%	5	25
2	Less than 50%	15	75
	Total	20	100

4.1.1.16 Distribution of the groups based on the turnover of membership

Turnover of membership resulted in the decline of many groups. It is seen from the Table18 that, out of 20 SHGs, 15 SHGs had high turnover of membership in one year and five SHGs showed low turnover of membership. Turnover of membership may be due to various internal conflicts, political problems and lack of proper leadership and coordination. High turn over affects the stability of the group.

Table 18: Distribution of the groups based on the turnover of membership (n=20)

Sl. No.	Turnover of membership	Frequency	%
1	High or one-quarter in one year	15	75
2	Low	5	25
	Total	20	100

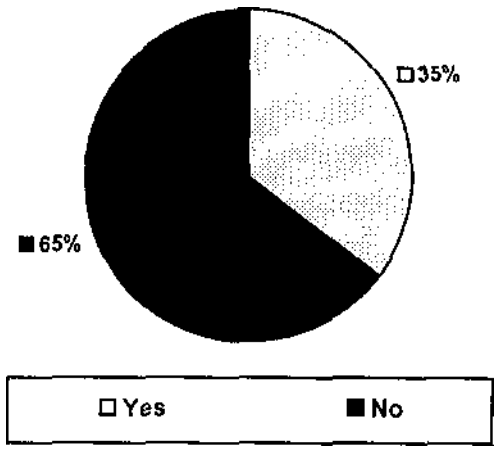
4.1.1.17 Distribution of the groups based on external support

Out of the twenty SHGs, only seven had critical support. Thirteen SHGs showed no external support. All the members of the group are getting better training from VFPCK and master farmers are easily accessible to all SHG members and can provide timely and location specific advice. The details are shown in Table 19 and Fig 3.

Table 19: Distribution of the groups based on external support (n=20)

Sl. No.	External support	Frequency	%
1	Yes	7	35
2	No	13	65
	Total	20	100

Fig 3: Pie-Diagram showing the distribution of the groups based on external support



4.1.1.18 Distribution of the groups based on rules

All the groups are following the rules. There is no deviation of the members with regard to attendance for meetings, repayment of loans etc. This has ensured the viability, survival and smooth operation of SHGs. (Table 20).

Table 20: Distribution of the groups based on rules (n=20)

Sl. No.	Adherence to group rules	Frequency	%
1	Yes	20	100
2	No	0	0
	Total	20	100

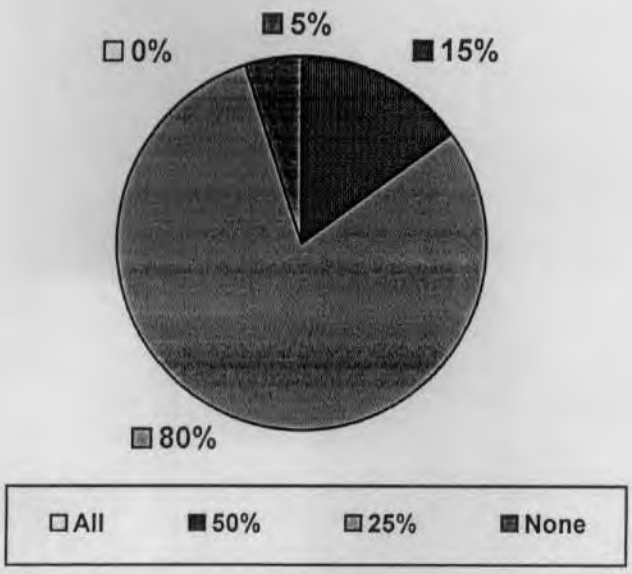
4.1.1.19 Distribution of the groups based on percentage of working class members

It is seen from Table 21 and Fig 4 that out of 20 SHGs studied, 16 SHGs had 25 percent working class members and 3 SHGs had 50 percent working class members.

Table 21: Distribution of the groups based on percentage of working class members (n=20)

Sl. No.	Percentage of working class members	Frequency	%
1	All	0	0
2	50	3	15
3	25	16	80
4	None	1	5
	Total	20	100

Fig 4: Pie-Diagram showing the distribution of the groups based on working class members



4.1.1.20 Distribution of the groups based on relevant skills

All the SHG members are getting frequent trainings from VFPCK. The Master Farmers attend training in VFPCK and in turn train other farmers of their respective SHGs. The master farmer concept has improved the self-confidence of farmers. All the members were of the opinion that VFPCK conducted trainings on the topics selected by the group members relating to field problems, which are yet to be solved. The trainings had improved the skill of farmers. The farmers of 50 percent of the SHGs had good skills and 40 percent had substantial skills. (Table 22)

Table 22: Distribution of the groups based on relevant skills (n=20)

Sl. No.	Skills	Frequency	%
1	None	0	0
2	Little – Skill	2	10
3	Substantial Skill	8	40
4	Good Skill	10	50
	Total	20	100

4.1.1.21 Distribution of the groups based on past misuse

Out of the 20 SHGs studied 90 percent of the SHGs did not misuse the resources provided to them to achieve the group objective. Only 10 percent of the SHGs diverted the resources provided to alternate uses.(Table 23).

Table 23: Distribution of the groups based on past misuse (n=20)

Sl. No.	Past misuse	Frequency	%
1	Yes	2	10
2	No	18	90
	Total	20	100

4.1.2 Distribution of viability components based on their variability in group viability

The results of the principal component analysis based on components (Variables) of the group viability are presented in Tables 24 and 25. The components having identical scoring pattern are selected for the analysis. Eight variables namely: Group initiation (1), Membership (2), Families (3), Group activities (4), Women members in the group (5), Literacy (6), Ratio of working class members (7) and Skills (8) were used for this analysis. Two components i.e., frequency of meetings and elections were not taken, as there was no significant variability in scores of these components among the groups.

The results indicated that the first linear combination of principal components contributed to 33 percent to the total variation, the second linear combination yielded

27 percent and the third linear combination contributed 11 percent variation. Thus the first three linear combinations of components yielded 72 percent of the total variation. In the linear combination, larger magnitude of variation was contributed by the components such as Literacy (6), Women members in the group (5), Group activities (4) and Skills (8).

Among the groups studied, most SHGs showed a high literacy percentage among its members, only a few showed a literacy percentage below 50 percent. It was observed that as the literacy rate increased, there was a marked difference in the administrative skills of the members and their independence in taking decisions. This supports the findings of Sreedaya (2000) who found that the people become more independent when they are more literate and economically oriented.

Another factor that showed considerable variation was women members in the group. Some groups didn't even have women members. It was seen that women members actively participated in all group activities, from cultivation to marketing and administration. Women members of the group showed a greater social participation. This supports the findings of Muller (1997) who found out that social participation increases the interaction among women involved in rural development.

Group activities also showed variation among the groups. As group activities increase, efficiency and productivity also increases. Higher the skills of the members, greater are their performance.

Table 24: Principal component analysis of the components of viability criteria

Variables	Principal Components							
	1	2	3	4	5	6	7	8
1	-0.181	-0.203	0.090	-0.053	0.230	0.769	-0.333	0.401
2	-0.152	-0.119	-0.112	0.064	-0.125	-0.376	0.201	0.865
3	-0.564	0.275	0.485	0.345	-0.337	-0.121	-0.349	-0.044
4	0.071	0.447	0.501	0.385	0.578	-0.189	0.039	0.159
5	0.443	-0.597	0.576	0.276	0.044	-0.163	-0.100	0.008
6	0.621	0.518	0.086	0.152	-0.428	0.268	-0.036	0.244
7	-0.195	-0.020	0.325	0.116	-0.092	0.344	0.844	-0.063
8	0.036	0.208	-0.220	0.783	0.540	-0.002	0.052	0.013

Variables

1: Group Initiation

2: Membership

3: Families

4: Group Activities

5: Women members in the group

6: Literacy

7: Ratio of working class members

8: Skills

Table 25: Percentage of variation and cumulative variation contributed by the components of viability

Components	Latent Roots	Percentage Variance	Cumulative Variance
1	23.703	33.314	33.314
2	19.337	27.177	60.492
3	8.396	11.801	72.292
4	6.849	9.626	81.919
5	5.050	7.098	89.017
6	3.535	4.968	93.985
7	3.087	4.339	98.324
8	1.192	1.675	99.999

4.1.3 Distribution of the respondents based on their profile characteristics

As seen from the Table 26, majority of the farmers belonged to the medium category with respect to age, annual income, educational status and farm size. This makes them a homogeneous group with identifiable characters and makes it easier for arranging and conducting group activities. Most of the farmers belong to high category with regard to experience in vegetable cultivation and increase in

income after joining SHG. This acts as a major motivator for joining SHGs to pool their individual wisdom and experience for the collective advantage and welfare of the group.

Majority of the farmers belonged to the medium category for cosmopoliteness, innovativeness, economic motivation; risk orientation, credit orientation and information need perception. Though 86.7 percent of the farmers belonged to the medium category group with respect to economic motivation, only 37.8 percent belonged to medium category for achievement motivation. There is a high degree of social participation among the group members. Almost 95.6 percent of the farmers studied belonged to the high category for training and 82.2 percent belonged to high category for market perception. This can be considered as a positive effect of group formation on identifying training needs and market perception for their individual advancement. The homogeneity of the group enables efficient group interactions and helps the group members to rise above individual limitations. The cohesiveness and social participation among and within the group has resulted in many a success story.

Table 26: Distribution of respondents based on their profile characteristics (n=90)

Sl. No.	Characteristic	Category (Mean ± SD)	Score	Frequency	Percentage
1	Age (Yrs)	Low	< 35	18	20.0
		Medium	35 – 50	63	70.0
		High	> 50	9	10.0
2	Annual Income (Rs.)	Low	< 7200	27	30.0
		Medium	7200 – 55400	54	60.0
		High	> 55400	9	10.0

Table 26 (continued)

3	Farm size (cents)	Low Medium High	< 25 25 – 200 > 200	5 76 9	5.6 84.4 10.0
4	Experience in Vegetable cultivation (Years)	Low Medium High	< 10 10 – 20 > 20	7 16 67	7.8 17.8 74.4
5	Increase in income after joining SHG	Low High	< 2 78	12 78	13.3 86.7
6	Educational Status	Low Medium High	< 3 3 – 5 > 5	12 70 8	13.3 77.8 8.9
7	Cosmopoliteness	Low Medium High	< 5 5 - 10 > 10	9 71 10	10.0 78.8 11.2
8	Innovativeness	Low Medium High	< 2 2 – 3 > 3	10 54 26	11.2 60.0 28.8
9	Achievement Motivation	Low Medium High	< 6 6 - 9 > 9	9 34 47	10.0 37.8 52.2
10	Economic Motivation	Low Medium High	< 10 10 – 25 > 25	7 78 5	7.8 86.7 5.5

Table 26 (continued)

11	Risk Orientation	Low Medium High	< 15 15 – 28 > 28	4 81 5	4.4 90.0 5.6
12	Credit Orientation	Low Medium High	< 12 12 – 15 > 15	8 76 6	8.9 84.4 6.7
13	Information perception	Low Medium High	> 15 15 – 25 > 25	12 71 7	13.3 78.9 7.8
14	Social participation	Low Medium High	< 2 2 – 10 > 10	0 8 82	0 8.9 91.1
15	Training attended	Low High	< 2 2 – 3	4 86	4.4 95.6
16	Market perception	Low Medium High	< 2 2 – 4 > 4	3 13 74	3.3 14.5 82.2
17	Knowledge in vegetable cultivation	Low Medium High	< 15 15 – 20 > 20	4 68 18	4.4 75.6 20

4.1.4 Distribution of respondents based on their economic performance and their relationship with profile characteristics

As can be observed from the Table 27 and Fig 5 that 67.8 percent of the farmers belonged to the medium category for economic performance with an 'Economic Performance Index' (EPI) of 100 – 112. Of the 90 respondents surveyed, 14 belonged to the low category and 15 belonged to the high category for economic performance. This reinforces the fact that farmers of SHGs due to their group participation had a better EPI compared to individual farmers due to the employment of their collective wisdom, experience, skill and knowledge for their common welfare.

Table 27: Distribution of respondents based on their economic performance (n=90)

Sl. No.	Characteristic	Category (Mean ± SD)	Score	Frequency	Percentage
1	Economic Performance	Low	< 100	14	15.5
		Medium	100 – 112	61	67.8
		High	> 112	15	16.7
TOTAL				**90**	**100**

Fig 5: Pie diagram showing the distribution of respondents based on their economic performance

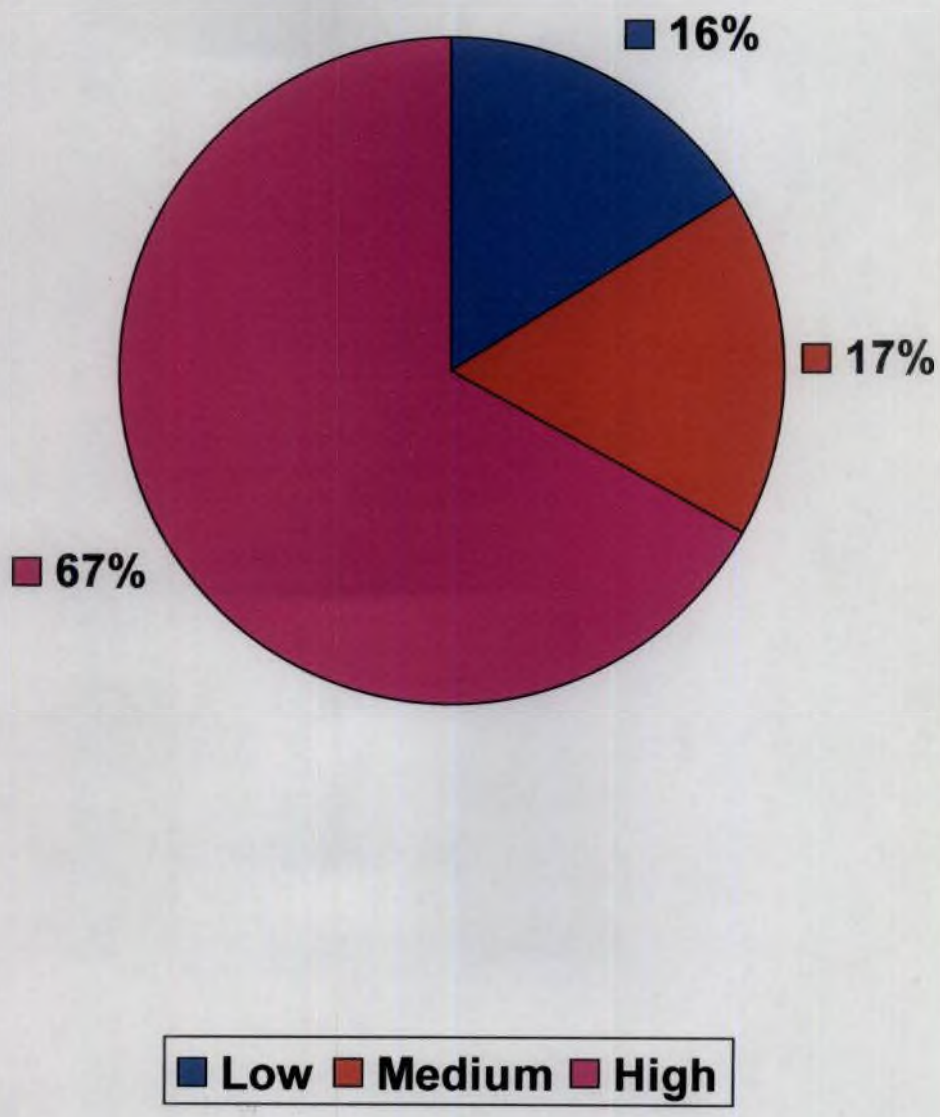


Table 28: Cost of cultivation of three vegetable crops and the economic performance index among the respondents

Sl. No.	Particulars	Bitter gourd		Snake gourd		Amaranthus	
		Cost/Cent (Rs.)	% of total cost	Cost/Cent (Rs.)	% of total cost	Cost/Cent (Rs.)	% of total cost
1	Seed purchase	12	2.6	10	2.2	42	11.2
2	Seed treatment	5	1.1	5	1.1	5	1.3
3	Land preparation	150	33.0	150	33.2	180	48.1
4	Soil amendments	12	2.6	12	2.7	12	3.2
5	Panthal raising	140	30.8	140	30.9	-	-
6	Chemical fertilizers	35	7.7	35	7.7	35	9.4
7	Organic manures	40	8.8	40	8.8	40	10.7
8	Plant protection	10	2.2	10	2.2	10	2.7
9	Rent amount	50	11.0	50	11.0	50	13.4
10	Total Cost of production	454	100	452	100	374	100
11	Quantity produced	50 Kg		72 Kg		53 Kg	
12	Value per units	Rs 10 / Kg		Rs 7 / Kg		Rs 8 / Kg	
13	Total value (Rs)	500		504		424	
14	Economic performance index = (Total value / Total Cost) x 100	110		111		113	

It can be observed from the table 28 that the cultivation practices of bitter gourd and snake gourd are almost the same. In both vegetables land preparation and panthal raising account for 33 percent and 31 percent of the total cost of production respectively.

In the case of amaranthus, cost of seed is higher and accounts for 11.2 percent of the total cost of production. Cost on land preparation accounts for another 48.1 percent.

The costs associated with other cultivation practices like seed treatment, fertilizer application, plant protection etc. are more or less the same for the three vegetable crops.

Since it is the farmers themselves who cultivate the field, the labour costs, irrigation costs and harvesting charges are nil. Transportation costs are also not seen, as the farmers need not take the produce to the market but only need to bring it to the nearest "vipani" centre in their locality. The vipani takes care of the marketing of the produce.

Though the cost of cultivation and total returns from amaranthus are the lowest among the three crops, it has got the highest 'EPI' of 113.This is due to the wider margin between it's cost and returns compared to the other two crops. Bitter gourd has an 'EPI' of 110 and Snake gourd 111.

Table 29: Relationship of the profile characteristics of the respondents with their economic performance (n=90)

Sl. No.	Profile characteristics	Correlation coefficient
1	Age	0.0493
2	Annual Income	- 0.0328
3	Farm size	- 0.0332
4	Experience in vegetable cultivation	0.0239
5	Increase in income after joining SHG	- 0.0703
6	Educational status	- 0.1191
7	Cosmopoliteness	0.0697
8	Innovativeness	- 0.1236
9	Achievement motivation	- 0.0946
10	Economic motivation	0.2803 **
11	Risk orientation	- 0.1423
12	Credit orientation	- 0.3085
13	Information need perception	- 0.1485
14	Social participation	0.2599 *
15	Training attended	- 0.1377
16	Market perception	0.0323
17	Knowledge in vegetable cultivation	- 0.0394

* Significant at 5% level (0.21)

** Significant at 1% level (0.27)

A perusal of Table 29 revealed that economic motivation (0.2803) and social participation (0.2599) had got positive and significant relationship with economic performance. Economic motivation is an important character that persuades

people to perform efficiently there by increasing the returns from farming. Economic motivation is an important motive that moulds the behaviour of an individual to perform more efficiently to improve his economic performance. The positive significant relationship obtained in the case of economic motivation and economic performance is justified in this light. This is in confirmation with the findings of Sreedaya (2000) and Suthe *et al* (1991)

Social participation implies wider contact with people and more communication with successful farmers. This would also have exposed them to new developments in different fields that might have acted as a motivator towards enhanced economic performance. This might have influenced the performance of the farmers, which explains the positive significant relationship between economic performance and social participation. These findings derived support from the studies of Varma (1996).

Credit orientation refers to the inclination of the respondents to avail credit. But as the economic performance of the farmer improves, the obligation on his part to avail credit decreases. This is due to the greater monetary flexibility that the farmer enjoys from his enhanced economic performance. This explains the significant negative correlation of credit orientation with economic performance.

All the other fifteen variables were not significantly correlated to economic performance. Though not significant; age, experience in vegetable cultivation, cosmopoliteness and market perception showed a positive trend. With increasing age, the experience of the farmers in vegetable cultivation also increases and enables them to avoid the pitfalls associated with vegetable cultivation, which in turn reflects on their economic performance. Cosmopoliteness and market perception increases the awareness of the farmers about market trend and keeps them vary of the blocks in economic performance and helps them to choose the best crop for each season based on the market needs and demands.

4.1.5 Distribution of the respondents based on their technology adoption behaviour and its relationship with the profile characteristics

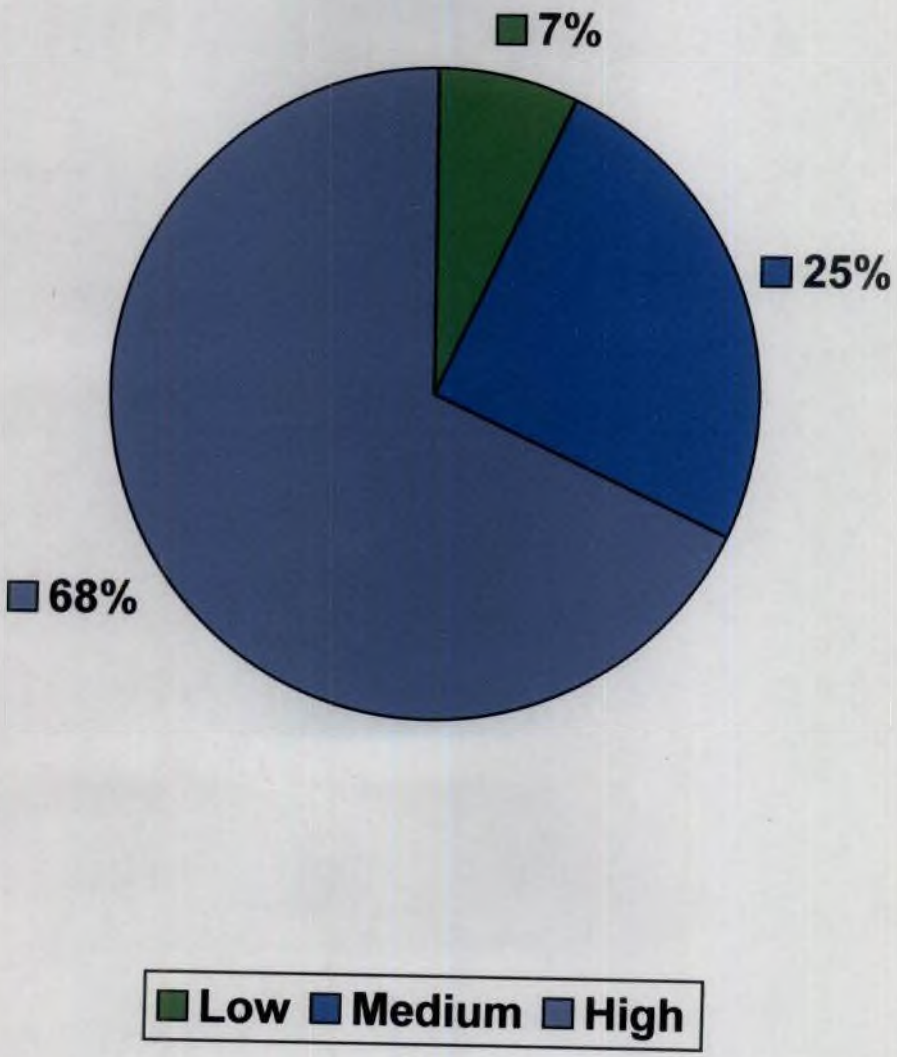
Table 30: Distribution of the respondents based on their technology adoption

(n=90)

Sl. No.	Characteristics	Category (Mean ± SD)	Score	Frequency	Percentage
1	Technology adoption	Low	< 12	6	7.0
		Medium	12 – 16	61	68.0
		High	> 16	23	25.0
TOTAL				**90**	**100**

From the Table 30 and Fig 6, it is clear that 68 percent of the farmers belong to the medium category group for technology adoption. Though farmers are very much aware of the advances in technology only 25 percent took the initiative to adopt new technology as and when it comes. The vast majority relies on experience and adopts new technologies only after they are convinced of its good effects. On the whole, it was observed that farmers were interested in organic pest management and participatory technology development. The PTD technologies were adopted faster as they were developed with the active involvement of the farmers.

Fig 6: Pie diagram showing the distribution of respondents based on their technology adoption behaviour



On reviewing Table 31, we can observe that the profile characteristics that show significant and positive correlation with technology adoption are annual income (0.3842), innovativeness (0.2559) and risk orientation (0.4395).

The respondents had adopted new technologies that were developed through PTD with their active involvement. Local and indigenous knowledge had been incorporated into new technologies making them more cost effective. This had considerably improved the chances of new technologies being adopted by the respondents and ensured a steady rise in their annual income. Also since the technologies are developed through local participation, chances of failure were almost nil. This seems to explain the significant and positive correlation between technology adoption and annual income. This is supported by the findings of Padmaiah *et al.* (1998).

Innovativeness refers to the inclination of the respondent to adopt new ideas. The members of SHGs have access to more information due to their social participation and cosmopoliteness. Also they had received trainings, which made them more aware of the pros and cons of new technologies. Hence the positive and significant correlation of innovativeness with technology adoption. This is in agreement with the findings of Anithakumari (1989). Innovativeness and risk orientation have significantly high positive correlation with technology adoption. Only people with a high degree of innovativeness and risk orientation would try out a novel technology in spite of the large number of risk associated with vegetable cultivation like financial risk, seasonal risk, worthiness risk, innovativeness risk etc. This finding is also supported by the observations of Momi and Sohal (1975).

The other variables that showed positive trend include age, experience in vegetable cultivation, increase in income after joining SHG, cosmopoliteness, achievement motivation, economic motivation, credit orientation, social participation, training attended, market perception and knowledge in vegetable cultivation.

With the advance in age of a farmer, his experience and knowledge in vegetable cultivation also increases. He gains more confidence and is

better able to differentiate the pros and cons of a new technology and shows greater receptiveness in adopting new technology. Hence the positive correlation between age, experience and knowledge in vegetable cultivation with technology adoption. This is in confirmation with the findings of Priya (2003). The study of Muller (1997), regarding the correlation of age and technology adoption also reported significant and positive .

It has been noted that the income of farmers increased after joining SHG. This was due to their group efforts and collective wisdom of the group in vegetable cultivation. Social participation and training increases technology adoption and hence their positive correlation. The support from Panchayats and Haritha Sangams enhances group or social participation, which in turn increases technology adoption. This finding finds support in the studies of Manoj (2000).

Cosmopoliteness of farmers is indicated by wider contact with influential and authoritative agencies and more communication with successful farmers and frequent field visits. These convince and persuade the farmers to adopt new technologies. Also contact with the outside world enhances the achievement motivation and economic motivation of farmers and encourages them to adopt new technologies to realize their goals and desires. Hence the positive correlation between cosmopoliteness, achievement motivation and economic motivation with technology adoption. These observations are supported by the study of Thomas (1998).

Due to the increased market perception of the farmers through various channels of mass communication like newspapers, radio, TV, exhibitions, seminars, demonstrations etc., they have realized the significance of better and improved technologies in increasing their productivity. Hence the positive correlation between market perception and technology adoption.

The positive correlation between training attended and technology adoption can be explained by the fact that training in a new technology gives the farmer the confidence and courage to adopt the same.

Due to adoption of technologies, which have been developed through PTD, the annual income of farmers increased which reinforced and helped to advance the farmer's fortunes further.

Table 31: Relationship of technology adoption behaviour and the profile characteristics of the respondents (n=90)

Sl. No.	Profile Characteristics	Correlation Coefficient
1	Age	0.0052
2	Annual income	0.3842 **
3	Farm size	- 0.0200
4	Experience in vegetable cultivation	0.1035
5	Increase in income after joining SHG	0.0600
6	Educational status	- 0.0894
7	Cosmopoliteness	0.0143
8	Innovativeness	0.2559 *
9	Achievement motivation	0.0902
10	Economic motivation	0.0915
11	Risk orientation	0.4395 **
12	Credit orientation	0.0183
13	Information need perception	- 0.0332
14	Social participation	0.1495
15	Training attended	0.0314
16	Market perception	0.1572
17	Knowledge in vegetable cultivation	0.1319

* Significant at 5% level (0.21)

** Significant at 1 % level (0.27)

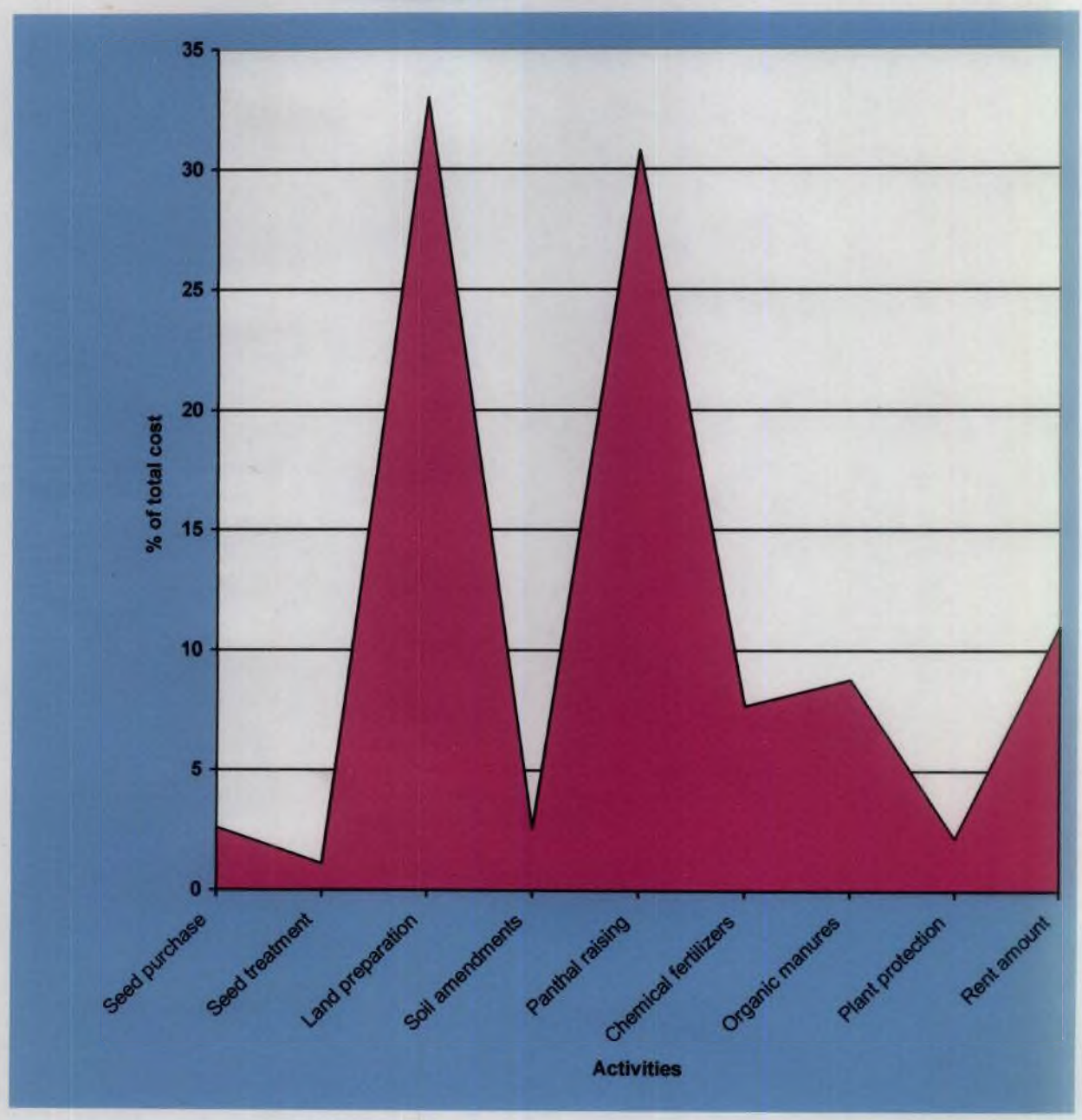
4.1.6 Credit utilization behaviour of the respondents

A common problem that is faced by the vegetable farmers is the high cost of production. The main objective of micro credit provision is to facilitate production and economic activities for profitable farming.

Table 32: Cost of cultivation for panthal crops

Sl. No.	Particulars	Cost/Cent (Rs)	Percentage of total cost
1	Seed purchase	12	2.6
2	Seed treatment	5	1.1
3	Land preparation	150	33.0
4	Soil amendments	12	2.6
5	Panthal raising	140	30.8
6	Chemical fertilizers	35	7.7
7	Organic manures	40	8.8
8	Plant protection	10	2.2
9	Rent amount	50	11.0
10	Total cost of production	454	100

Fig 7: Distribution of amount spent in cultivation activities



The data presented in Table 32 and Fig 7 reveals that the total cost of cultivation for a panthal crop is about Rs.454/ cent, which comes to about Rs. 1,13,500 for a hectare. Of this 33 percent is accounted for by land preparation costs. Panthal raising covers another 31 percent of the total cost. In addition to this labor cost on irrigation, which accounted for a large share, had not been included due to the judicial and beneficial use of the family labour at the disposal of the farmers. Efficient use of family labor has in fact helped to bring down the cost of cultivation by a large amount, as labour is costly in Kerala.

Due to the relentless work of SHGs and VFPCK field officers, the farmers have taken up integrated crop management practices like seed treatment, use of soil amendments, organic manures, plant protection measures etc. Besides, new technologies have been developed through PTD with active involvement of farmers. This might have contributed to the high rate of technology adoption. Since the PTD is with the active participation of farmers; local, traditional and indigenous cost effective technologies have been adopted in the areas of pest control and organic manuring. This has also helped to reduce the cost of cultivation considerably.

Purchase of seeds and other inputs are undertaken on a group level, thus reducing the cost of cultivation. Harvesting and interculturing is also done by the farmers themselves thus saving labour costs. Since the produce is taken to the local 'vipani', farmers can save cost on transportation and marketing.

Earlier farmers were fully dependent on chemical fertilizers. But now due to the increased awareness among farmers about the ill effects of excessive use of chemical fertilizers and due to the local availability of organic manures, their use have increased considerably and accounts for 8.8 percent of the total cost of cultivation.

The total credit need for cultivation of panthal crop is Rs 454 /cent. Of this, the amount supplied as loan for cultivation of panthal crop in leased land is Rs 300/cent. Therefore there is complete credit utilization for the cultivation of panthal crop. The credit availed was Rs. 154/- less than the reported cost of cultivation incurred by the farmer (Table33).

Table 33:Credit utilization for panthal crop

Sl. No.	Particulars (for one cent)	Amount (Rs)
1	Credit need for vegetable cultivation in leased land for panthal crop.	454
2	Amount supplied as loan for vegetable cultivation in leased land for panthal crop	300
3	Credit gap for vegetable cultivation in leased land for panthal crop	154

4.1.7 Distribution of the groups and the farmer respondents based on their repayment behaviour

VFPCK's credit package has been implemented through five commercial banks namely State Bank of India, State Bank of Travancore, Union Bank of India, Canara Bank and South Malabar Gramin Bank. By agreement, the banks are sanctioning crop loans to VFPCK farmers who are cultivating even on leased lands with out any registered tenancy agreement. VFPCK places a matching deposit with the bank as resource support, which is not tied to the loans. The most remarkable aspect of the credit package is the very high recovery rate. As mentioned earlier, credit repayment of the group is conceptualized as an indicator of the economic performance of the group. The economic performance of the groups having farmers with high credit repayment would be high. From the Table 34 it is seen that the farmers in majority of the SHGs are showing higher credit repayment. In SHGs of Plavoor and Veliyanoor, the credit repayment is high, and so is their economic performance.

Table 34: Distribution of the SHGs based on their repayment behaviour

(as on June 2003)

Sl. No.	Name of SHG	Total lending	Total Recovery	Total Renewal	Total Defaulters	Recovery Index (RI)	Thrift Credit Ratio (TCR)	Out-standing Credit Ratio (OCR)
1	Machel	11	7	7	4	0.64	0.64	0.36
2	Veliyanoor	9	9	9	0	1.0	1.0	0
3	Kovilvila – I	21	17	13	4	0.81	0.62	0.19
4	Poovathoor	10	9	9	1	0.9	0.9	0.1
5	Bhagavathipuram	15	13	15	2	0.87	1.0	0.13
6	Arayammakonam	7	5	6	2	0.71	0.86	0.29
7	Plavoor	7	7	5	0	1	0.71	0
8	Muttakadu	23	15	22	8	0.65	0.96	0.35
9	Pappanchani	17	13	16	4	0.76	0.94	0.24
10	Kaliyalvila	8	4	8	4	0.50	1.0	0.50

SHGs help farmers by offering loans in a simple manner. SHGs either offer loans directly to farmers or help them to acquire loans from other sources without much hassle. SHGs ensure that the loans are provided only for productive purposes and that the loan amount is within the repayment capacity of the farmer. This is possible due to the intimate knowledge existing between SHG members and field officer.

Table 34 depicts the credit repayment behaviour of farmers belonging to 10 SHGs using various indices such as Recovery Index (RI), Thrift Credit Ratio (TCR) and Outstanding Credit Ratio (OCR). These indices were calculated using data such as total lending, total recovery, total renewal and total defaulters of each SHG.

If total recovery is equal to total lending, then recovery index would be one. A recovery index of one means that the credit repayment was complete. It can be observed from Table 34, that recovery index was one only in two SHGs namely Veliyanoor and Plavoor. Most of the SHGs have a recovery index above 0.75, i.e. 75 percent of the farmers had repaid their loan amount. Kaliyalvila SHG showed the lowest credit repayment with a recovery index of 0.5. The comparison of SHGs with respect to their recovery index is shown in Fig 11.

Thrift Credit Ratio indicates the ratio of total renewal to total lending. If total renewal is equal to total lending, then TCR is one. But in case the farmers default in the repayment of credit, then the banks would be cautious and would not allow the renewal of loans to the defaulters. The banks would renew the loans of defaulters only if they are sure that it is a case of exception and that the farmers would repay on getting a better harvest. It can be observed from Table 34, that the SHGs of Kaliyalvila, Veliyanoor and Bhagavathipuram have a TCR equal to 1. Usually total renewal of loans is equal to the total recovery of loans; this means that banks extend credit only to those farmers who are credit worthy and prompt in repayment. In cases where the TCR is above Recovery Index, it merely indicates that the defaulting farmers were given credit either due to their longstanding relationship with the bank or due to the undue political pressure on the banks to waive the loans of influential members. This can be seen in the case of SHGs of Bhagavathipuram, Kaliyalvila,

Pappanchani, Muttakadu and Arayammakonam. Fig 9 is a graphical representation of the TCR of the 10 selected SHGs.

TCR below Recovery Index indicates that certain farmers who had completely repaid the loans did not avail the loan again either due to non-availability or due to non-necessity. They might not have been convinced of the utility of the credit.

Most of the SHGs have few defaulters. This is because of the group pressure on individuals to repay the loans on time. Increased outstanding credit ratio indicates increased number of defaulters. High OCR is a drawback for an SHG, as this would make the banks more reluctant to extent credit to farmers of such SHGs. Except Kaliyalvila all SHGs have an OCR below 0.5. This clearly supports that the SHGs have high repayment levels of micro credit. Fig10 shows the trend of outstanding credit ratio of the selected SHGs.

Fig .8 Pie Diagram showing the comparison of SHGs with respect to Recovery Index

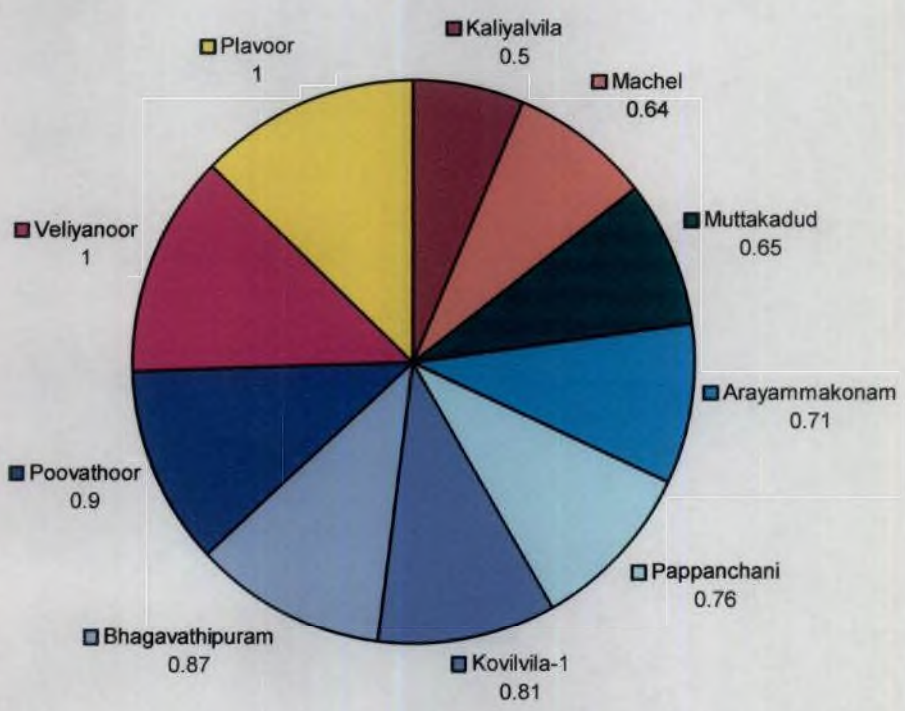


Fig 9 : Comparison of SHGs with respect to Thrift Credit Ratio

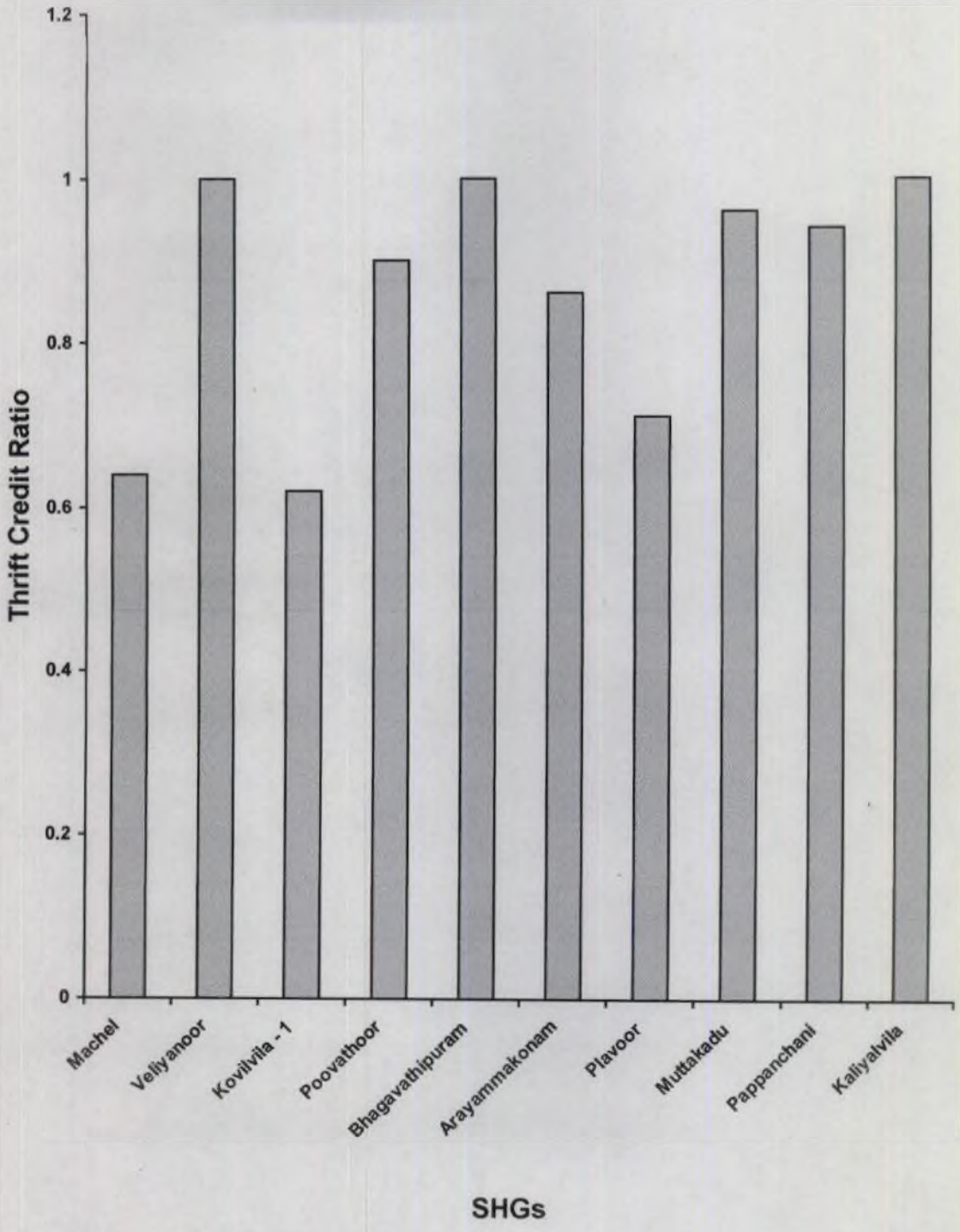
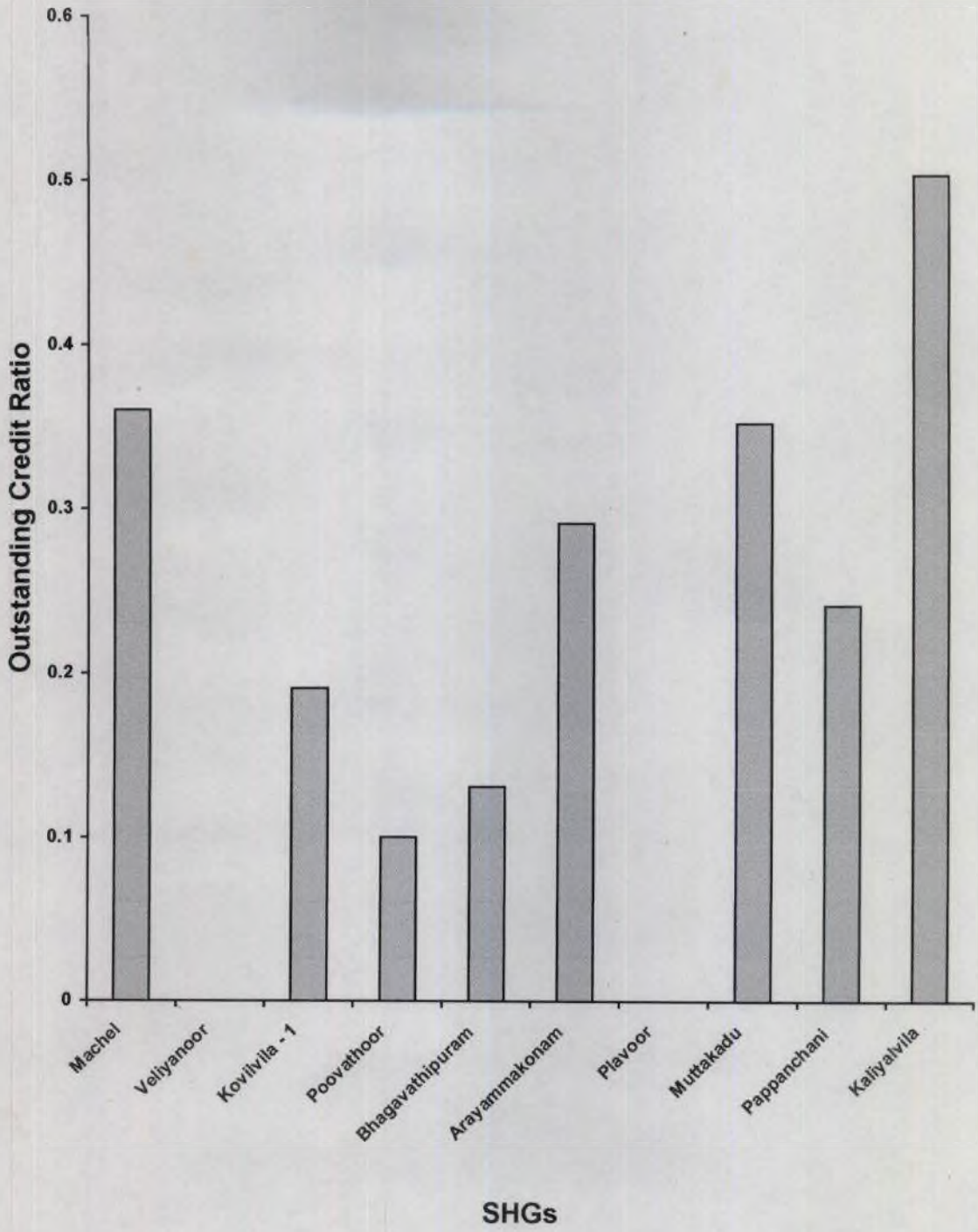


Fig 10 : Comparison of SHGs with respect to Outstanding Credit Ratio



4.1.8 Empirical model of the results

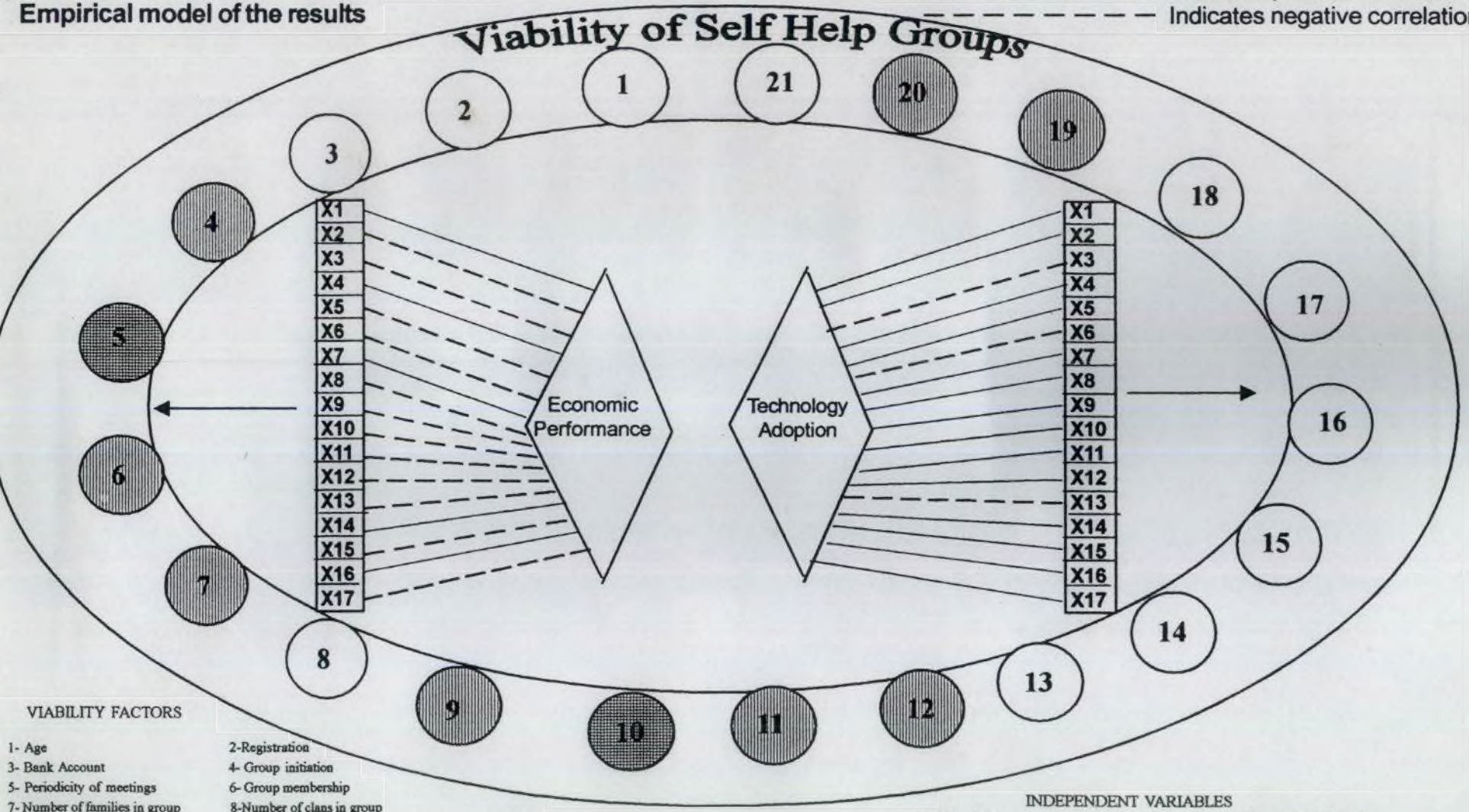
The results are shown as empirical model in Fig.11. The variables economic performance and technology adoption and their relationship with personal and socio psychological variables are shown in the inner portion. The darker lines indicate positive significant correlation and the dotted lines represent negative correlation. The economic performance and technology adoption along with credit utilization and repayment will lead to the viability of the group.

Regarding technology adoption, the variables like annual income, innovativeness and risk orientation showed a positive and significant correlation. With respect to economic performance, factors like economic motivation and social participation showed a significant positive correlation.

The factors contributing to the variability and the factors representing no variability in group viability are shown in different shades.

Fig 11

Empirical model of the results



VIABILITY FACTORS

1- Age
2-Registration
3- Bank Account
4- Group initiation
5- Periodicity of meetings
6- Group membership
7- Number of families in group
8-Number of clans in group
9-Group activities
10-Elections
11-Women members
12-Literacy
13-Widowers / disabled
14-Dominance of member
15-Non interested members
16-Turnover of member
17-External support
18- Group rules
19- Ratio of working class members
20- Skills
21- Misuse of aid

indicates variability in group viability

indicates no variability in group viability

not selected

INDEPENDENT VARIABLES

X1- Age
X2-Annual Income
X3- Farm size
X4- Experience in vegetable cultivation
X5- Increase in income after joining SHG
X6- Educational status
X7- Cosmopoliteness
X8-Innovativeness
X9-Achievement motivation
X10-Economic motivation
X11-Risk orientation
X12-Credit orientation
X13-Information need perception
X14-Social participation
X15-Training attended
X16-Market perception

X17 - knowledge in vegetable cultivation

4.2 CONSTRAINTS AND SUGGESTIONS

4.2.1 Constraints faced by the farmers of SHGs

Table 35: Constraints faced by the farmers of SHGs (n = 90)

Sl. No.	Constraints	Frequency	Percentage	Rank
1	Perishable nature of vegetables and lack of storage facilities at the centre	49	54.4	1
2	The delay in getting the price of produce supplied	47	52.2	2
3	Strength and unity of merchants	42	46.6	3
4	Lack of working capital at the field centre	40	44.4	4
5	Lack of vehicle facility at field centre	38	42.2	5
6	Lack of insurance in case of high crop damage	37	41.1	6
7	High crop damage due to incidence of pest and disease due to seasonal variation	36	40	7
8	Lack of incentives for 100 percent repayment	33	36.6	8
9	No price differentiation in the market between the vegetables cultivated through organic and inorganic methods	30	33.3	9
10	Lack of attendance of all farmers in the meetings	25	27.7	10
11	The rules and regulations for availing credit are becoming more complex	24	26.6	11
12	Improper repayment of loans	20	22.2	12
13	Labour cost is a major constraint in profitable farming and income generation leading to more defaulters	15	16.6	13
14	Lack of dedicated and efficient leadership	10	11.1	14
15	High political influence limits repayment levels by influential members	7	7.7	15

The respondents studied were asked to appraise the constraints faced by them. A list of the constraints mentioned by the farmers is given in the Table 35.

It can be observed from the Table 35, that 54.4 percent of the farmers found the perishable nature of vegetables as a major constraint. It ranked first among the constraints. About 30 percent of the produce is lost due to lack of proper storage facilities at the field centre. Another major constraint faced by the farmers is the time gap between the sale of produce and the receipt of money for the goods sold. This severely handicaps the farmers by reducing the working capital available with him. The merchants and middlemen are strongly united thus severely eroding the bargaining power of the farmers for the produce. The vegetables being perishable, the farmers cannot afford to wrangle with the merchants for long. If proper storage facilities could be made available, it would have helped a lot in improving the bargaining position of farmers.

Another major constraint faced by the farmers is the lack of working capital at the field center (44.4 percent). Also the field centre does not have a vehicle, thus severely impairing the transportation of vegetables.

High damage of crops due to pest diseases and natural calamities and the lack of proper insurance for high crop damage is another blow below the belt for the farmers. High crop damage not only leave the farmers high and dry but also leaves him in debt and without money to raise the next crop.

Next major constraint faced by the farmers is the increasing difficulty in availing credit due to the rules and regulations. But rules and regulations are becoming tight to control the problem of credit non-repayment. Lack of incentives and high political influence are two major reasons pointed out for non-repayment of credit.

It was observed that 33.3 percent of the respondents felt that the lack of price differentiation between vegetables grown organically and using chemical fertilizers is

acting as a damper to popularize organic farming. The lack of price differentiation is due to the lack of awareness among the public regarding the benefits of organic farming. Otherwise they would be willing to pay a higher price for the organic produce.

Around 16 percent of the farmer respondents felt that the high labour cost existing in Kerala is eating away their efforts to make farming profitable. So farmers are resorting to make an efficient and judicious use of family labour for cultivation.

It can be seen that 11 percent of the farmers studied expressed lack of an efficient leadership as a constraint in the proper working of the SHG. Due to this participation of farmers in meetings have also declined affecting the efficient functioning of SHG.

4.2.2 Suggestions for improving the SHGs

Table 36: Suggestions for improving the SHGs (n=90)

Sl. No.	Statements	Score	Rank
1	The friendly approach that is followed now should be continued	84	I
2	Once a defaulter is identified, banks must share equal responsibility to avoid revenue recovery	76	II
3	The field centre should avoid the time delay in giving back the money for farmer's produce	72	III
4	Incentives like interest reduction is needed for prompt repayment	70	IV
5	Proper identification of beneficiaries with least political interference	67	V
6	Farmers should be given proper incentives in the case of high crop damage either due to pest and diseases or due to seasonal variation.	63	VI
7	The programme should give incentives to those SHGs having hundred percentage repayment of the credit	57	VII
8	Close monitoring of beneficiaries is needed at harvesting time	54	VIII
9	The existing rules and regulations for availing credit should be continued	51	IX
10	The programme should lay emphasis on cultivation according to market demand	48	X
11	Produce from out side the group should never be entertained by the field centre	42	XI
12	Government support must be increased in policy measures and monetary aspects	39	XII
13	Make provision to remove the non farming members from SHGs	33	XIII
14	Loan amount must be increased if repayment is timely for last season	28	XIV
15	The council should also announce awards for the best SHGs in the state	24	XV

It is seen from Table 36 that the majority of the members are now satisfied with the friendly approach followed in SHGs. This ranked first among the suggestions. The flexibility in availing loans and also the friendly approach of officials enabled them for better group performance. Once a defaulter is identified banks must share equal responsibility with the field officers to avoid revenue recovery. The field centre should avoid the delay in giving back the money to farmers for the produce supplied. This enables them to repay the loans on time. Seventy percent of the respondents suggested providing incentives for prompt repayment of credit. Incentives can be in the form of interest reduction, monetary support or an increase in the loan amount sanctioned. Proper identification of beneficiaries with least political interference is important. Involvement of politics may affect the group activities. Proper compensation should be given to farmers in case of high crop damage due to pest and disease or due to natural calamities or climatic vagaries. This will be a relief to farmers. The programme should give incentives to those SHGs having full repayment of the credit. This will motivate them for a better performance. The existing rules and regulations for availing credit should be continued. The SHGs should regularly assess the credit worthiness of farmers and hold credit-planning session. The cultivation should be according to the market demand. This will help in marketing the produce for a reasonable price. Also produce from outside the group should never be entertained by the field centre. The field centres should be the central points for group marketing involving the members of SHGs. Close monitoring of beneficiaries and removing the non-farming members from SHGs will improve the group functioning and performance. Government support must be increased through policy measures and monetary aspects. The council should take initiative to announce awards for the best SHGs in the state.

CHAPTER V

SUMMARY AND CONCLUSION

CHAPTER – V

SUMMARY AND CONCLUSION

The core concept used by VFPCK for promoting the development of farmers is the Self Help Groups, which gives them access to credit and to advice from officials. The efforts have provided a beacon light to guide a shift of focus on agricultural development from crop-based to farmer based by making the SHGs economically viable and self-sufficient.

The underlying intension of the study is to analyse the viability of SHGs under VFPCK with regard to their economic performance, technology adoption, credit utilization and repayment.

The specific objectives of the study were:

1. To analyse the viability of the Self Help Groups
2. To find the factors responsible for the variation in viability among the groups
3. To study the economic performance of the groups as well as the members of the groups
4. To study the credit utilization and repayment by the respondents
5. To assess the technology adoption by the respondents
6. To assess and correlate with profile characters, the economic performance of the respondents
7. To assess and correlate with profile characters, the technology adoption by the respondents
8. To identify the constraints faced by the Self Help Groups and suggestions for improvement.

The study was conducted in Thiruvananthapuram district during June-August 2003. The study was conducted among the randomly selected SHGs of VFPCK. From the total 296 SHGs present in Thiruvananthapuram district, 20 SHGs were randomly selected for the study. There were two categories of respondents

1. SHGs of VFPCK in Thiruvananthapuram district
2. Individual members of the group

The 20 SHGs were studied as such using the 21 point selection criteria developed by SACRED – Africa for analyzing the viability of SHGs. The second category of respondents were the individual farmers selected from the top 5 and bottom 5 SHGs arranged according to their viability. From the total 180 members present in the 10 SHGs selected , 50 percent of them were selected randomly for studying their economic performance, technology adoption, credit utilization and repayment. Thus the sample size obtained was ninety. The profile characteristics of the SHG members were also studied.

All the variables were measured with the help of various statistical measurement procedures. The viability of the group was analyzed using the 21-point selection criteria developed by SACRED – Africa. The VFPCK recommended technology and cost of cultivation were used as standards to measure technology adoption and credit utilization. The credit repayment by the individual farmer was studied using the details maintained at the computer system in VFPCK.

The data were collected using pre-tested and structured interview schedule and questionnaire prepared for the purpose. The statistical tools used were frequency method, simple percentage analysis, correlation analysis and principal component analysis.

The important findings of the study are:

1. Out of the 20 SHGs studied, about 50 percent were more than 6 years of age. Another 30 percent had been established 4-6 years ago. So the SHGs are still in the process of consolidation and strengthening.

2. The members of a group should have interest in initiating and maintaining a group. For this interdependence is necessary. Of the 20 SHGs studied, 5-10 members initiated 65 percent. This indicates the social participation and awareness among the farmers regarding the benefits of group activity.

3. It was observed that 80 percent of the SHGs held meetings at least once every month. This helped to evolve group consensus regarding the marketing and training aspects. The atmosphere during the meetings was informal, which gave flexibility to the group and enabled to solve conflicts amicably as and when they arose.

4. More than 80 percent of the SHGs had a membership ranging from 16-29. People from diverse political ideologies, castes and religions are grouped under SHGs to reap the benefits of social participation.

5. More than 50 percent of SHGs held more than one continuous group activity regularly. The frequency of the group activities helped to overcome differences and to ensure participation of farmers in training and other group activities.

6. The style of functioning of the SHGs is democratic, with the members sharing the responsibilities. Authority was also not vested with a single individual but underwent rotation. This helped to

develop leadership qualities in the farmers. In about 90 percent of the SHGs, elections were held at least once in 3 years.

7. The participation of women in SHGs was poor. The majority of the members present were males. In about 30 percent of the SHGs studied, there were no women members. But in 20 percent of the SHGs there were two-third women members.

8. It was seen that around 75 percent of the SHGs have 100 percent literacy. This indicates the interest of the literate generation in farming, being attracted by the fact that it is possible to earn a profitable living through farming.

9. In 95 percent of the SHGs studied, 1-3 members dominated the group. This is consistent with the fact that it is only a handful few that take the initiative to lead a group, the rest are followers. And of the 20 SHGs studied, only 25 percent had more than 50 percent non-interested members. This is emphasized because only whole hearted participation in group activity would ensure success of the group. A disinterested group would lack motivation and dedication resulting in the death or dysfunction of the group.

10. About 75 percent of the SHGs studied had a high turn over of membership resulting in the decline of many groups. This was due to various reasons like political interference, group incompatibility, lack of co-ordination and leadership etc.

11. All the groups adhered to the rules and regulations of the SHG. This has helped to ensure the viability; survival and smooth operation of SHGs. Ninety percent of the SHGs did not misuse their resources.

12. More than 50 percent of the SHGs had members possessing good skills in vegetable cultivation. The frequent training conducted by VFPCK to its member farmers has ensured this.

13. The results of the principal component analysis revealed that the larger magnitude of variation in the group viability was contributed by the components such as literacy in the group, women members in the group, group activities and relevant skills. In the case of literacy 25 percent of the SHGs showed 50 percent of the members literate. Of the 20 SHGs studied there was one SHG having all members literate. In the case of women members, 80 percent of the SHGs showed no women members and for group activities 50 percent of SHGs showed 1-2 frequent activities.

14. Majority of the farmers belong to the medium category of 35 – 50 years of age. Showing the interest of young blood in farming majority of the farmers belong to the medium category for annual income and farm size.

15. About 75 percent of the farmers have more than 20 years of experience in vegetable cultivation. This also indicates a high level of knowledge in vegetable cultivation among farmers.

16. Majority of the farmers belong to the medium category for cosmopoliteness, innovativeness, economic motivation, risk orientation, credit orientation and information need perception. There is a high degree of awareness and social participation among group members.

17. Almost 90 percent of the farmers studied belong to the high category for training and 82 percent belong to high category for market

perception. This can be considered as a positive effect of group formation on identifying training needs and market perception for their individual advancement.

18. In the case of economic performance, 67.8 percent of the farmers belong to the medium category. The result showed that the farmers of SHGs had a better economic performance index. The characters like economic motivation and social participation showed a positive and significant correlation with economic performance. The variables like age, experience in vegetable cultivation, market perception and cosmopoliteness showed a positive trend.

19. Around 68 percent of the farmers belonged to the medium category group for technology adoption. It was observed that farmers were interested in organic pest management and participatory technology development. The PTD technologies were adopted faster as they were developed with the active participation of the farmers. The result revealed that annual income, innovativeness and risk orientation showed most significant positive correlation with technology adoption.

20. The income of farmers increased after joining SHG. This was due to the group efforts and collective wisdom of the group in vegetable cultivation. Social participation and training increased technology adoption and hence showed positive correlation. The positive correlation between training and technology adoption can be explained by the fact that training in a new technology gives the farmer the confidence and courage to adopt the same.

21. The farmers have taken up integrated crop management practices like seed treatment, use of soil amendments, organic manures, plant protection measures etc. Purchase of seeds and other inputs are undertaken on a group level, thus reducing the cost of cultivation. The total credit need for cultivation of a panthal crop is Rs. 113500 per hectare. Of this the amount supplied as loan for cultivation of panthal crop in leased land is Rs. 75000 per hectare. Therefore there is complete credit utilization. Majority of the farmers are using family labour in the cultivation aspects. This has reduced the cost of cultivation.

22. The results of credit repayment revealed that most of the SHGs have a recovery index above 0.75. Most of the SHGs have few defaulters. This is because of the group pressure on individuals to repay the loans on time. Most of the SHGs showed high repayment levels of micro credit.

23. The major constraints faced by the farmers of SHGs are the perishable nature of vegetables. About 30 percent of the produce is lost due to lack of proper storage facilities at the field centre. The time gap between the sale of produce and the receipt of money for the goods supplied had also become a constraint. Export potential must be more facilitated.

24. High damage of crops due to pest, diseases and natural calamities and the lack of proper insurance for high crop damage is another constraint. Around 33.3 percent of the respondents feel that the lack of price differentiation between vegetables grown organically and using chemical fertilizers is acting as a damper to popularizing organic farming.

25. Regarding suggestions for improving the SHGs, majority of the farmers had an opinion to continue the friendly approach followed in SHGs. The field centre should avoid the time delay in getting back the money to farmers for the produce supplied. The cultivation should be according to the market demand. The council should take initiative in the export of vegetables as it has a lot of opportunities.

Suggestions for Future Research

The present study had been conducted only among the randomly selected Self Help Groups of VFPCK. In the future, the researchers can purposefully select those SHGs functioning in good and bad conditions of other districts also. The opportunities for export and other diversification of activities can be included in the further studies. Increasing the efficiency of group leadership and the role of leaders in the functioning of SHGs can be included in future research. Studies can also be conducted among the SHGs involved in health, rural and community development activities.

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VIABILITY OF SELF HELP GROUPS IN VEGETABLE AND FRUIT PROMOTION COUNCIL KERALAM - A MULTIDIMENSIONAL ANALYSIS

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ABSTRACT OF

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ABSTRACT

The study was conducted among the randomly selected 20 SHGs of the VFPCK in Thiruvananthapuram district. These SHGs were studied as such using the 21-point selection criteria developed by Sustainable Agriculture Center for Research and Development in Africa (SACRED – Africa) for analyzing the viability of SHGs. Viability refers to the potential of the groups in the areas of agricultural extension and marketing, by exploring and utilizing the manpower resources and other resources in a group, thus facilitating community development. The twenty SHGs were arranged in descending order according to the ranking obtained.

The respondents were the individual farmers selected from the top five and bottom five of viability ranking. From the total 180 members present in the selected 10 SHGs, 50 percent of them were randomly selected for studying their economic performance, technology adoption, credit utilization and repayment.

The data were collected using the pre-tested interview schedule developed for the study. The interview schedule prepared in English was translated into Malayalam before administrating to the respondents. To study the constraints faced by the farmers of SHGs, separate questionnaire was prepared.

The collected data were analyzed using statistical tools such as mean, percentage, correlation analysis and principal component analysis.

The dependent variables of the study were economic performance and technology adoption of the farmers. A number of independent variables like personal and socio psychological characters affect the two dependent variables.

It was observed from the study that 80 percent of the SHGs had a membership ranging from 16-29 members and had a democratic style of functioning.

Majority of the farmers belonged to the medium category for economic performance and technology adoption. The characters like economic motivation and social participation showed a positive significant relationship with economic performance. In the case of technology adoption, annual income, innovativeness and risk orientation showed a positive significant relationship.

The credit repayment study showed that majority of the respondents had a high recovery index and the numbers of defaulters were very low. Also the credit utilization was complete. The major constraints felt by the respondents were the perishable nature of the vegetables and the delay in getting the price of the produce supplied. This is compounded by the lack of storage and transportation facilities. Majority of the farmers suggested to continue the friendly approach followed in SHGs.

APPENDICES

APPENDIX – I

List of 'Swashraya Karshaka Samathis' and SHGs in Trivandrum Project Area

Sl. No	Name of SKS	No. Of SHGs
1	Balaramapuram	22
2	Chenkal	18
3	Kattakada	17
4	Kazhakuttom	12
5	Kollayil	19
6	Kovilnada	17
7	Kunnathukal	18
8	Maranellur	25
9	Mylachal	25
10	Nedumangad	14
11	Neyyattinkara	18
12	Pappanchani	12
13	Parassala	13
14	Perumkadavila	16
15	Sreekariam	15
16	Udiyankulangara	12
17	Vembayam	14
18	Venganoor	17
Total		**296**

APPENDIX – II

INTERVIEW SCHEDULE AT SHG LEVEL

21-point selection criteria for viable SHGs

Date :

Panchayat :

Name of SHG :

Name of group coordinator :

1. Age of group

   1 = 1 year, 2 = 2-3 years, 3 = 4-6 years, 4 = more than 6 years.

2. Group is registered

   0 = No, 1 = Yes

3. Has bank account

   0 = No, 1 = Yes, 2 = More than one account.

4. Group initiated by

   1 = one member, 2 = 2-4 members, 3 = 5-10 members,

   4 = more than 10 members.

5. How often meetings

   0 = none, 1 = every six months, 2 = every three months,

   3 = every month

6. Group membership

1 = less than six or more than 30 members, 2 = 6-9 members,
3 = 10-15 members, 4 = 16-29 members.

7. How many families in the group
   0 = one family, 1 = 2-5 families, 2 = 6-10 families,
   3 = more than 10 families

8. How many clans in group
   1 = one clan, 2 = 2-5 clans, 3 = 6 – 10 clans.

9. Group activities
   0 = none, 1 = one-off activity, 2 = 1-2 frequent activities,
   3 = more than one continuous activity

10. Elections
   0 = no election in more than 3 years, 1 = one election in 3 years
   2 = one election every year, supported by minutes and change in signatories.

11. How many women
   1 = no women, 2 = 50 percent are women, 3 = two-thirds women

12. How many members are literate
   1 = all members, 2 = 50 percent of members,
   3 = 25 percent of members, 4 = none.

13. How many widows(ers), disabled
   0 = none, 1 = 1-3 disabled, 2 = more than three disabled.

14. Dominance of group by

0 = 1-3 members, 1 = 4-6 members, 2 = none or more than 6 members

15. Non – interested members

0 = more than 50 percent of members, 1= less than 50 percent of members

16. Turnover of membership

0 = high or one quarter in one year, 1 = low

17. Have external support

1 = yes, 2 = none

18. Have group rules which are followed

0 = none, 1 = yes

19. Ratio of working class members

0 = all, 1 = 50 percent working class, 2 = 25 percent working class,

3 = none.

20. Relevant skills for chosen activities project

0 = none, 1 = little skill, 2 = substantial skills, 3 = good skills

21. History of past misuse of aid/group members

0 = yes, 1 = no

APPENDIX-III
INTERVIEW SCHEDULE FOR BENEFECIARIES

Date :

Panchayath :

SHG :

Respondent Number :

1. Name and Address :

2. Age :

3. Area Under Cultivation

   a. Area owned :

   b. Leased in :

   c. Leased out :

4. Experience in Vegetable cultivation : Years

5. (1) Annual Income (Rs.)

   a. On farm

   b. Off farm

   (2) Increase in income after joining SHG (Rupees/annum)

6. Educational Status

Sl. No.	Level of Education	
1.	Illiterate	:
2.	Can read and write	:
3.	Primary school level	:
4.	Middle school	:
5.	High school	:
6.	College	:
7.	Professional college status	:

7. Cosmopoliteness

Sl. No. a) Frequency of visit to nearest town

1. Twice or more in week
2. Once in a week
3. Once in a month
4. Seldom
5. Never

b) Purpose of visit

1. All visits related to his / her farming
2. Some visits related to his / her farming
3. Other purposes
4. No purposes

c) Membership in organization outside the village

1. Office bearer
2. Member
3. No membership

8. Innovativeness

When would you like to adopt an improved practice in farming?

1. As soon as it is brought to my knowledge.
2. After I had seen other farmer tried successfully in the farm.
3. I prefer to wait and take my own time.
4. I am not interested in adopting improved practices.

9. Achievement motivation

Please respond to the following sentences by choosing the appropriate answers

a) In whatever work I undertake on my farm

1. I like to make advance plan
1. I like to do my best
2. I do not assume full responsibility for it

b) I am always keen

1. To maintain social status
2. To remove social evils
3. To develop my qualifications

c) I feel happy when

1. I tell others of my personal experience
2. I am assigned a different job
3. I am required to advice to others

d) My secret ambition in life is

1. To lead a happy married life
2. To establish a glorious record of achievement
3. To own a large farm unit

e) I like to venture something which

1. Others can hardly do
2. Will make one wealthy
3. Others regard as a quality of leadership.

10. Economic Motivation

Please indicate your agreement or disagreement to the following statement
SA – Strongly agree, A – Agree, UD – Undecided,
DA – Disagree, SDE – Strongly disagree.

Sl. No.	Statement	SA	A	UD	DA	SDA
1.	The farmer should work towards larger yield and Economic returns.					
2.	The most successful farmer is one who makes the most profit.					
3.	A farmer should try new farming areas which may give more money					
4.	A farmer should grow each crop to increase a monetary profit in comparison to growing to food crops for home consumption.					
5.	It is difficult for farmers children to make good start unless he provides them with economic assistance					
6.	A farmer must earn his living but the most important thing in life can not be defined in economic terms					

11. Risk Orientation

Please give your degree of agreement or disagreement about the each of the following statements.
SA – Strongly agree, A – Agree, UD – Undecided,
DA – Disagree, SDE – Strongly disagree.

Sl. No.	Statement	SA	A	UD	DA	SDA
1.	A farmer should grow large number of crops to avoid greater risks involved in growing one or two crops.					
2.	A farmer should take more of a change in making a big profit than to be content with smaller but less risky profit.					
3.	A farmer who is willing to take greater risk than the average farmer usually does better financially.					
4.	It is good for a farmer to take risk when he knows his change of success is fairly high.					
5.	It is better for a farmer not to try a new farming method unless, most others in the locality have used it with success.					
6.	Trying entirely a new method in farming by a farmer involves risk but is worth.					

12. Credit Orientation

Sl. No.	Items				
1.	Do you think farmer like you should borrow from banks for agricultural proposal.	Yes		No	
2.	In your opinion how difficult it is to secure credit for agricultural purposes?	VD	D	E	VE
3.	How a farmer is treated when he goes to secure credit from banks/Co-operative societies?	VB	B	F	VF
4.	There is nothing wrong in taking credit from institutional sources for increasing production.	SA	A	DA	SDA
5.	Have you taken credit in the last two years for crop production.	Yes		No	

12. Information need perception

As an entrepreneur you may need information on several items relating to business finance. Please give your opinion about the degree of information needed on the following items.

Sl. No.	Items	Most needed	Needed	Somewhat needed	Less needed	Not needed
1.	Banking procedures to be followed to secure loan					
2.	Interest rate prevailing in the bank					
3.	Mode of disbursement of loan					
4.	Mode of payment					
5.	Different types of loan available					
6.	Technical know-how					
7.	Mode of action to be taken by banks for non-repayment of loan					

13. Social Participation

Please indicate whether you are a member or office bearer in any of the following organization. If so, indicate the frequency of participation.

R – Regularly ST – Sometime N – Never

Sl. No.	Organization	Nature of participation	Frequency of participation in meetings / activities		
		Member; Office bearer	R	ST	N
1.	Panchayath				
2.	Co-operative society				
3.	Farmers club				
4.	Youth club				
5.	Socio-cultural organization				
6.	Any other (specify)				

14. Training attended

Training	1	2	3	> 3

15. Market perception

Please record your response based on your perception with regard to marketing your produce.

a) Do you think a farmer will be able to sell his produce if he increases the production by adopting the recommended practices? Yes / No

b) Do you think that the produce of the crop cultivated according to the recommended practices will fetch good price compared to those raised under traditional methods? (Low / Same / High)

c) How difficult will it be to dispose off the produce of the crop cultivated following the recommended practices? (Very difficult / Difficult / Easy / Very Easy)

16. Knowledge in vegetable cultivation

Q. What are the major Vegetables you are cultivating?

a. Name one high yielding variety of each of them.

b. The best season for planting them

c. Seed rate of those vegetables.

d. The NPK fertilizers per ha. to be used.

e. Name one pest affecting the crop.

f. Name one disease affecting the crop.

g. The chemical method used for its control.

h. Yield per ha.

17. Economic Performance

Please indicate the quantity & value of the produce and also the expenses incurred in producing the same during 2001-2002

Sl. No.	Items	1	2	3
1.	Crop			
2.	Season			
3.	Total acreage under crop			
4.	Quantity produced per acre			
5.	Total production			
6.	Value per unit			
7.	Total value			
8.	Cost of production per unit			
9.	Total cost of production			
10.	EPI			

$$\frac{\text{Total Value}}{\text{Total Cost of production}} \times 100 = \frac{\sum_{i=1}^{k} P_i \times Q_i}{\sum_{i=1}^{k} c_i} \times 100$$

18. Technology adoption

a. *Do you apply Vermicompost in the field?* Yes / No
(If yes, give dosage per pit)

b. Do you use yellow sticky traps for aphid control in cucurbits? Yes / No
(If yes, give the number)

c. Do you use fruit fly traps against melon fly in cucurbits? Yes / No
(If yes, give the number)

d. Do you apply any weedicide in your field? Yes / No
(*If yes, name it*)

e. *Do you use Bavistin for seed treatment in cowpea?* Yes / No
(If yes, give dosage)

f. Do you use Neem oil emulsion for pest control? Yes / No
(If yes, give the dilution)

g. Do you apply Trichoderma culture in Cowpea cultivation? Yes / No
(If yes, give the dosage)

19. Credit Utilization

Sl. No.	Activity	Borrowing Amount	Utilization Amount		% of total cost of cultivation
			Quantity	Cost	
1.	Seed purchase				
2.	Seed treatment				
3.	Land preparation				
4.	Soil amendments				
5.	Panthal raising				
6.	Chemical fertilizers				
7.	Organic manures				
8.	Plant protection				
9.	Harvesting				
10.	Transporting				

20. Credit repayment

a. New loan no.
b. New loan amount
c. Renewal loan no.
d. Renewal loan amount
e. Per farmer off take of credit
f. Time delay in credit delivery
g. Recovery pattern of newly induced farmers
h. Current year overdue loans.
i. Total no. of overdue loans
j. Overall repayment

21. Constraints

In your opinion what are the constraints for the effective functioning of your SHG? Indicate your agreement or disagreement to the constraints listed below. Add any other constraints which you find hindering the successful performance of your SHG.

1. Constraints faced by the farmers of SHGs

Sl. No.	Statements	Agree	Disagree
1	Lack of working capital at the field center		
2	Perishable nature of Vegetables and lack of storage facilities at the field center.		
3	The time delay in giving back the price of sold produce to the farmers.		
4	Strength and unity of merchants.		
5	Lack of vehicle facility at the filed center		
6	Lack of incentives for hundred per cent repayment		
7	No price differentiation in the market between the vegetables cultivated through organic and inorganic methods.		
8	The rules and regulations for availing credit are becoming more complex.		
9	Improper repayment of loans		
10	Lack of insurance in the case of high crop damage		
11	High crop damage due to the incidence of pest and disease and due to seasonal variation		
12	Lack of attendance of all farmers in the meetings		
13	Lack of dedicated and efficient leadership		
14	High political influence limits repayment levels by influential members		
15	Labour cost is a major constraint in profitable farming and income generation leading to more defaulters.		

2. Suggestions for improving SHGs

Sl. No.	Statement	SA	A	UD	DA	SDA
1	The friendly approach that is followed *now should be continued*					
2	The field center should avoid the time delay in giving back the money for farmer's produce					
3	Farmers should be given proper incentives in the case of high crop damage either due to pest and disease or due to seasonal variation.					
4	The existing rules and regulations for availing credit should be followed in the near future also.					
5	The programme should give incentives to those SHGs having hundred-percentage repayment of the credit.					
6	Once a defaulter is identified, banks must share equal responsibility to avoid revenue recovery.					
7	Make provision to remove the non-farming members from SHGs.					

8	Government support must be increased in policy measures and monetary aspects.					
9	Loan amount must be increased if repayment is timely for last season.					
10	Incentives like interest reduction is needed for prompt repayment.					
11	Close monitoring of beneficiaries is needed at harvesting time.					
12	The council should also announce awards for the best SHGs in the state.					
13	Produce from outside the group should never be entertained by the field center.					
14	The programme should lay emphasis on cultivation according to market demand.					
15	Proper identification of beneficiaries with least political influence.					

APPENDIX – IV

KERALA AGRICULTURAL UNIVERSITY

Dr. B. Seema
Assistant Professor

Dept. of Agricultural Extension
College of Agriculture,
Vellayani. P. O, Thiruvananthapuram
Pin – 695 522

Dated 28.07.2003

Dear Sir/Madam,

Mr. Fayas. A. M., M.Sc. (Ag) student of this department has taken up a research study on "Viability of Self Help Groups in Vegetable and Fruit promotion Council Keralam – A Multi-Dimensional Analysis" under my guidance. He has identified some of the personal and socio psychological characteristics based on review of literature , discussion with experts and pilot study. These are listed in the annexures along with their operational definition.

Considering your past experience, I request you to offer your valuable rating about the relevancy of each variable for inclusion by putting a tick mark in the appropriate column. Kindly give suggestions also to make the study more meaningful and effective.

With regards,

Yours sincerely.

[B. SEEMA]

Annexure

List of Variables

(Kindly put a ✓ Mark)

Sl. No.	Variables	Most Relevant	More Relevant	Un decided	Less Relevant	Least Relevant
1	**Age** – *refers to the* number of calendar years completed by the farmer respondent at *the time of interview.*					
2	**Educational Status** - refers to the informal and formal learning achieved by the respondent.					
3	**Occupational Status** – defined as the position of the group member, which acts as a source of income in which he spends major part of his time and attention.					
4	**Annual income** refers to the total earning of all the members of the family of the respondent for one year.					
5	**Caste** – refers to the hierarchy of a group member whether belongs to upper/ backward/ scheduled caste.					

6	**Experience in Vegetable cultivation** – refers to the total number of years the respondent has been engaged in vegetable cultivation.					
7	***Increase in Income after joining SHGs*** – *refers to the increase in* income after joining *SHGs for availing* credit for one year.					
8	**Area under vegetables** refers to the extent of area under vegetables processed by the respondents.					
9	**Innovativeness** – *refers to the degree to* which the respondent *was relatively earlier* in adopting new ideas.					
10	**Credit Orientation** – refers to the orientation to avail credit by the respondent.					
11	**Material possession** - defined as the money value of the materials possessed by the group *member.*					
12	**Economic motivation** – *refers to the extent to* which a farmer is *oriented towards profit* maximization and relative value *he* places on monetary gains.					

13	**Risk Orientation** – refers to the degree to which the farmer is oriented towards encountering risk and uncertainty in adopting new ideas in farming.					
14	**Attitude towards group approach** – refers to the degree of favourableness or unfavourableness of the farmers towards group approach.					
15	**Irrigation index** – refers to the extent to which the crop is being irrigated.					
16	**Market perception** – refers to the degree of perception of farmers about different marketing channels.					
17	**Achievement motivation** – refers to the striving of farmers to do good work and attain a sense of accomplishment.					
18	**Cosmopoliteness** – refers to the tendency of the farmers to be in contact with outside village on the belief *that all the needs of an* individual cannot be satisfied within his own village.					
19	**Entrepreneurial behaviour** – refers to the quantum of scientific information possessed by the farmer on vegetable cultivation.					

20	**Extension contact** refers to the degree of contact of farmers with different extension agencies.					
21	**Knowledge in vegetable cultivation** – refers to the quantum of scientific information possessed by the farmer on vegetable cultivation.					
22	**Scientific orientation** – refers to the degree to which farmer is oriented to the use of scientific methods in decision making in cultivation of vegetables.					
23	**Perception about SHGs** – refers to the recognition of stimuli and interpretation about SHGs involved in vegetable cultivation.					
24	**Social participation** – refers to the participation of individuals in various formal social institutions either as a member or as an office bearer.					
25	**Discipline** – refers to the degree to which members of the group confirms to self disciplines in group activities.					

26	**Training** – defined as the number of training, which the group member had undergone for the success of their group work.					
27	**Information need perception** – refers to the perception of respondents about the degree of information respondent wanted to know about the credit facilities before availing it.					
28	**Farming experience** – refers to the total number of years respondent has been engaged in vegetable cultivation.					
29	**Self-reliance** – refers to the extent to which a personal relies on self for his future.					
30	**Mass media exposure** – refers to the extent to which farmer is exposed to different mass media channels.					