ROLE OF AGRICULTURAL LABOURERS IN DECISION MAKING IN PADDY PRODUCTION BY FARMERS IN THIRUVANANTHAPURAM DISTRICT

BY

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THESIS

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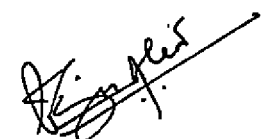
Dedicated to my
most beloved Pappa

DECLARATION

I hereby declare that this thesis entitled "ROLE OF AGRICULTRAL LABOURERS IN DECISION MAKING IN PADDY PRODUCTION BY FARMERS IN THIRUVANANTHAPURAM DISTRICT" 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 other similar title, of any other University or Society.



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CERTIFICATE

Certified that this thesis entitled "ROLE OF AGRICULTURAL LABOURERS IN DECISION MAKING IN PADDY PRODUCTION BY FARMERS IN THIRUVANANTHAPURAM DISTRICT" is a record of research work done independently by Sri. Jiju P. Alex under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.

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CONTENTS

LIST OF TABLES

(contd.)

LIST OF FIGURES

LIST OF APPENDICES

INTRODUCTION

Chapter 1

INTRODUCTION

Among the very many factors which influence any production function, labour is regarded as the most important one. As Prokopenko (1987) rightly puts it, " formal analysis of basic productivity factors such as input, output, labour, capital, technology and motivation reveals that more than half of these factors are concerned with quality of labour force." Thus, any attempt with an objective to augment productivity cannot, in any condition, ignore the significance of labour. This holds good not only in industrial sector, but in agricultural situations as well.

Agricultural labour, obviously constitutes a major fraction of the total work force available in our country. It is to the tune of 26.49 per cent excluding Assam and Jammu and Kashmir. In Kerala, they form 25.66 per cent of the total workers as per Census, 1991. Most strikingly, the emerging scenario is indicative of an unprecedented increase in the number of agricultural labourers, in years to come. It is observed that in the face of a population growth of two per cent per annum, through the last two decades, the bulk of the additional 100 million people who are likely to join the labour force in the nineties will have to find jobs in

agriculture and allied activities. Acharya (1992) reiterated this fact stating that modern technology of the bio chemical type in the presence of irrigation will promote human labour. Agricultural labour is the leverspring of Indian economy, which is still, purely an agrarian one and what is entrusted up on them is the strenuous and mammoth task of feeding over 1000 million people by the end of this century.

It is at this juncture, the relevance of augmenting the production and productivity by making judicious use of the available resources arises. Besides the improvement activities done with respect to inputs and technology, labour quality should also be made better, since inefficiency of labour has been pointed out as a major reason for low agricultural production in our country. Until recently, the input of labour in production function was measured in numbers and quality was neglected. However, it has now been realised that rapid economic development in advanced countries has been brought about by the improved quality of labour force. In the light of this experience, attempts are being made the world over by adopting various measures to improve the labour efficiency and thus, the quality. Most important one among them is workers' participation in management. This has been identified as a powerful motivational technique, based on the principle that any

scheme intended to inculcate a sense of participation in management among workers with a view to improve the working and living conditions will increase productivity. A good deal of observations and studies are available in this regard in the industrial sector.

Though the circumstances differ in the agricultural sector with respect to the organisation and orientation of different components of production, workers' participation seems to have a significant role to play in increasing production. Participation of agricultural labourers is most likely to take place in the process of decision - making by the farmers. As widely known, decision - making is required at each and every stage in agriculture, and the farmer has to take appropriate decisions with respect to each operation and the manner in which it is to be done. If the labourer is involved in the decision-making process with the farmer, it will motivate him so as to develop a deeper sense of responsibility, which would ultimately result in increased productivity. Labour participation is also expected to facilitate sharing of new ideas between the employer farmers and labourers, being aware of field problems, higher degree of acceptance of decisions, and existence of peaceful working conditions. This would also create a sense of fulfilment, among the labourers, and would elevate their moral dignity.

A probe into the possibility of implementation of his technique necessitates the exploration of the perception of the agricultural labourers about their role in decision-making by their employer farmers.

leed for the study:

Implementation of any motivational technique, ntended to improve the efficiency and responsibility of employees need a thorough and comprehensive awareness egarding their mental disposition. Employees, discontented ith the existing state of affairs are unlikely to contribute uch to the betterment of the organisation. Taking this into consideration, execution of the idea of participation of gricultural labourers in decision-making calls for an examination of the labourer's perception of their possible oles in decision-making with the farmer and the relationship etween their individual characteristics and overall role erception.

It is also necessary to observe if there had been ny involvement of the agricultural labourers in decision-making by the employer farmer. That is, the actual role performance in various decision-making areas, by the gricultural labourers with their employer farmer need be studied. Moreover, a dearth of enough studies in this irection has been noticed. As opined by Howard and Mc Ewan

(1989), only a few studies have looked into the effects of human resource management, concerned with attracting, keeping and motivating labour. They further stated that to help farmers develop optimal human resource management policies, researches need to examine the socio-economic characteristics such as job attitude, farming experience and personality traits of labour employed in farms. Taking all these into account, paddy cultivation which requires more number of male and female casual agricultural labourers was selected for exploring the role of agricultural labourers in decision-making with the farmer.

It was with these aims, the following specific objectives of the present study have been set.

1. To identify the areas of decision-making by agricultural labourers with the farmers employing them in paddy production.

2. To identify the role perception and role performance of male and female agricultural labourers in decision making.

3. To study the role of male and female agricultural labourers in decision-making as perceived by the farmers employing them.

4. To analyse the characteristics of male and female agricultural labourers in relation to their role perception and role performance.

Scope of the study :

The inferences derived out of this study could be employable in identifying the training needs of agricultural labourers and thereby designing relevant and appropriate training strategies. In the milieu of scarcity of research works in this area, the present study would certainly throw light on the various problems existing in the farmer-labourer relationship and also would suggest various methods to improve them, so as to create greater satisfaction and the feeling of responsibility among the employees. This would, ultimately lead to better production and productivity in agricultural sector. Moreover, standardisation of measuring devices to quantify the variables in the study would contribute to the body of research in Agricultural Extension.

Limitations of the study :

This study, constrained by limited time and resources was unable to operate in all parts of the state. Besides that, the study was confined to paddy cultivation alone. These limitations have, perhaps narrowed down the scope of generalising the results. Personal biases and varying capacities of memory retention among the respondents are also bound to have influence on the observations and inferences.

However, accomplishment of the objectives to the maximum extent possible has been earnestly tried for.

THEORETICAL ORIENTATION

Chapter II

THEORETICAL ORIENTATION

This chapter intends to furnish a proper orientation to the study by associating available research findings with the proposed research problem. The review of previous works attempted in this chapter may assist in the delineation of new problem areas and may provide a basis for formulating a theoretical frame work for the study, by which empirical investigation is facilitated. The discussion will be useful to select relevant hypotheses against which the empirical evidence can be interpretted.

The review of past studies has been presented under the following titles.

1. Agricultural labourer
2. Role
3. Perception
4. Role perception
5. Performance
6. Role performance
7. Decision-making
8. Labour participation in decision-making

9. Role of labourers in decision-making

10. Difference between male and female agricultural labourers in their role perception and role performance

11. Relationship between role perception and role performance

12. Role perception and role performance in relation with the selected characteristics of labourers

13. Conceptual framework of the study

2.1. Agricultural labourer

Agricultural labourer has been defined by various authors.

According to the Report of National Commission on Labour (1969) an agricultural labourer is one who is basically unskilled and unorganised and has little for his livelihood than other personal labourer.

Government of Kerala (1976) defined agricultural labourer as "a person who, in consideration of the wages payable to him by a land owner, works on, or does any other agricultural operation in relation to the agricultural land of such land owner. Rao (1976) stated that in the 1971 census, an agricultural labourer was defined as "a person who worked in another person's land for wages in money, kind or share without any right or lease or contract on the land on which he works".

Padmanabhan (1981) defined agricultural labourer as a person doing any kind of agricultural operation for a farmer in receipt of wages in the form of either cash or kind or both.

In the present study, agricultural labourer has been defined as a person doing any kind of agricultural operation in paddy production, for a farmer in receipt of wages in the form of either cash or kind or both.

2.2. Role

Role has been defined by many author differently. Ogburn and Nimkoff (1964) defined role as a set of socially expected and approved behaviour patterns consisting of both duties and privileges associated with a particular position in a group. They further explained it as the obligation which an individual has towards his group.

Hodge and Johnson (1970) construed role as a unique combination of talent and attitude adopted to discharge a specific assignment. Luthans (1983) defined role as a position that has expectations evolving from established norms.

Seema (1986) in her study about the role of farm women in the decision-making process of a farming community, operationally defined role as a set of behaviour pattern consisting of duties and privileges associated with the position of women as house wives in making decisions related to their socio-economic life.

Ashaletha (1993) while studying the role of agricultural assistants in agricultural development, operationalised role as the activities related to a system of rights and duties associated with a position in the field of agricultural development.

In the present study, role has been defined as a set of behaviour pattern consisting of duties and privileges associated with the agricultural labourer employed by the farmer in making decisions with them in paddy production process.

2.3. Perception

Perception is an internal condition representing external things and this psychological process helps to delineate and make out various sensory stimulations bombarding the individuals. This is made possible with the help of previous knowledge and experiences inscribed in the mind of the individual regarding the stimulations.

Bohlen and Beal (1960) postulated that an individual's response or action is the result of perception of the stimulus which implies the behaviour as motivated by a stimulus.

Kolsa (1970) defined perception as the selection and organisation of materials which stem from the outside environment at one time or other to provide the meaningful entity one experiences.

According to Mitchell (1978) perceptions are those factors that shape and produce what one actually experiences. Moreover, behaviour is a function of one's perception and changes in perception would result change in behaviour. Thus perception could be a determinant of performance.

Pestonjee et al. (1981) defined perception as the process of receiving, selecting, organizing, interpretting, checking and reacting to sensory stimuli or data.

It is obvious from the foregoing reviews that perception is the awareness and consciousness derived from a stimulus by an individual.

2.4. Role perception

Role perception was defined by Sargent (1951) as a pattern or type of social behaviour which seems situationally appropriate to an actor in terms of demands of expectations of those in his group.

Seema (1986) studying the role of farm women in decision-making process, construed the concept of role perception as the thinking and feeling function of the respondents towards decision-making regarding socio-economic life.

Ashaletha (1993) operationalised role perception as the perceived degree of importance attached to the role items to be performed by the respondents.

For the purpose of the present study, role perception has been defined as the thinking and feeling function of agricultural labourers towards decision-making regarding paddy production, with the farmer.

2.5. Performance

Performance was referred to as a function of an individual's ability, knowledge and motivation by Devar

(1969). He expressed this schematically as P = M (A+K). Implicit in it is that ability (A) and knowledge (K) themselves cannot fully determine the performance expected of an individual and another factor-motivation (M) is also decisive in deriving the best out of him.

Herman (1973) discussing the situational contingencies limiting job attitude - job performance relationship stated that performance implies the result of an individual's response to a stimulus object.

2.6. Role performance

Role performance was construed by Davis (1949) as how an individual actually performs a task in a given situation as distinct from how he is supposed to perform.

Razvi (1967) defined job performance as the manner and extent to which different jobs are performed in practical situations. Sobhana (1982) operationally defined role performance as the role being actually performed by virtue of occupying a particular role position.

According to Warris et al. (1990), role performance is the manner in which an employee carries out or actually performs his/her roles.

Bhople and Patki (1992) while studying the correlates of role performance and training needs of farm women labourers operationalised role performance as the actual performance of various farm operations by women labourers.

For the purpose of this study, role performance has been construed as the action-function performed by an agricultural labourer in relation to decision-making by the farmer employing them in paddy production process.

2.7. Decision-making

Decision-making is a rational process that involve the selection of a particular course of action from among the alternatives available to achieve a predetermined objective. This process of choice has been a subject of thorough investigation and discussion and is of high significance in various social sciences viz. Sociology, psychology, social psychology, economics and management studies.

Nandapurkar (1982) defined decision-making as the degree to which an individual justifies the selection of most effective means from among the available alternatives on the basis of scientific criteria for achieving maximum economic profit.

Srinivasan and Chunawala (1983) in their discussions on management principles and practice, regarded decision-making as the core of managerial activities in an organization.

Here decision-making has been defined as the process of judiciously choosing courses of action from available alternatives for the purpose of paddy production.

2.8. Labour participation in decision-making

Singh and Singhal (1969) defined participation in decision-making as social and emotional involvement of a person in a group situation which encourages him to contribute to group goals and share responsibility in group activity.

Padmanabhan (1981) for the purpose of studying the influence of labour efficiency on the adoption of improved agricultural practices by farmers, operationalised participation in decision-making as the extent to which the labourer is involved in decision-making with the farmers regarding what to cultivate, how to cultivate etc. According to Saiyadain (1988), participation refers to sharing in an appropriate way the decision-making power with subordinates.

2.8.1. Importance of labour participation in decision-making

The concept of participation of labourers or workers in decision-making is regarded by management experts all over the world as an effective measure to improve the efficiency of labour and thereby to augment production and productivity.

Ganguli (1958) and Faroqui (1962) stated that participation from labourers was related to productivity.

Mongia (1976) opined that employees are dependent on the efficient working of an enterprise and they should be interested and want some voice in the affairs of that enterprise. He further stated that a worker will more readily live upto the work standards that he himself helps to set up and agree with. This would ultimately make the management and workers interested in good results of production, as this is a prerequisite for the achievement of the aspiration of each.

Flippo (1980) viewed that participation of workers in decision-making will help in achieving the objective of setting the employees to go to work willingly and enthusiastically and also participation will motivate the

labourers. He emphasised its significance by stating that anticipated returns to the organisation as a result of participation include higher quality decisions, when subordinates possess relevant informations unavailable to employers, greater acceptability of resulting decisions and greater identification with the organization and its goals.

Tokman (1986) opined that involving employees and workers in the decision-making process is essential in order to identify minimum areas of agreement, without which any long time development plan would be unworkable. He also stated that because of the sheer size and importance of the under privileged sections of the population, it is necessary to involve them too in the decision-making process and this would help achieve higher incomes and better working conditions.

Schregle (1987) observed that workers' participation in the sense of associating workers in enterprise decisions that traditionally have been taken by management is an agenda of industrial relations debate, practically everywhere.

Strasszer (1990) reported that in Hungary, higher wages, independent decision-making by workers, use of contract labour in intensive production lines and profit

sharing schemes, have all led to greater motivation and creative thinking on the part of waged work force.

2.9. Role of labourers in decision-making

The possibilities and problems of involving labourers in decision-making process and their roles with respect to decision-making by the employer are yet to be studied exhaustively, in the field of agriculture. Though not much, literature in this regard are available from the field of industrial management. This inadequacy has necessitated the collection of similar studies from the industrial sector.

Tchobian (1975) while discussing the reorganisation of work in Italian companies pointed out that involving workers delegate movement in decision-making was a means of increasing workers' control over their conditions of work, through investigations carried out by the workers themselves.

The need of involving workers in deciding the working conditions was reiterated by Hethy (1986), stating that workers' active participation in determining forms of work organisation and working conditions cannot be replaced by another method since they have the first hand information

needed for the purpose and are best able to decide whether the solutions proposed will promote their interests.

The observations cited above reveal that employees have been involved in decision-making in various industrial enterprises. The role of employees are confined to only a few aspects, namely, deciding work organization, safety measures, working conditions etc. In the present study, it was assumed that labourers are likely to be involved in almost all decisions taken by the farmer, pertaining to the production of paddy.

2.10. Difference between male and female agricultural labourers in their role perception and role performance

Though lack of direct studies has been a constraint in establishing the existence of gender differences among agricultural labourers in their role perception and role performance, it could be observed from a review of available past studies that there are discernible differences between men and women labourers in the perception and performance of their roles in decision-making.

While many researchers have found that the role of women are confined to lighter activities, a few have observed that men and women involve almost equally in agricultural operations.

Sharma and Singh (1970) studying the participation of rural women in decision-making process related to farm business observed that farm women participated in farm operations such as seed storage, winnowing, care of animals, harvesting, weeding, sowing, applying manures and using implements in the above order.

Thankamani (1971) was of the opinion that farm women participated in all agricultural operations and the extent of their usual participation was higher in transplanting and hoeing than in others.

Devadas et al. (1972) stated that the extent of participation of farm women was higher in storing followed by sowing and transplanting seedlings. They also observed that women supervised all other activities such as arranging for the sale of the produce, operating implements and selling the produce and farm women were almost always consulted in making decisions on various farm operations like getting new seeds, selecting crops, getting fertilizers and pesticides and appointing labourers.

Devadas (1975) investigating the role of women in modern agriculture, stated that in modern agriculture, women shared a number of farm operations with men. Activities like

seed selection, storage, sowing behind the plough, dibbling and planting, field irrigations, weeding, cleaning of grains, collection and storage of manure and most of the other farm operations were mainly carried out by women.

According to Mazumdar (1975) jobs traditionally done by women in most parts of the country were transplanting, sowing, weeding and harvesting.

Sherwani (1983) indicated that in rural areas, female workers mostly act as helpers to men in agricultural activity. They were found to do works as harvesting, weeding, planting, threshing, manuring etc.

Rexlin (1984) while studying women's participation in decision-making on farm practices, reported that the percentages of expected and actual participation of farm women were generally higher for dairy management practices compared to the respective percentages for crop husbandry practices.

Datta and Sharma (1985) found that women workers are generally allocated lighter works such as transplanting of paddy, weeding and harvesting. Of these, some are exclusively meant for women such as transplanting while others are jointly performed depending on the disposition of male labour time.

Observations made by Mallik et al. (1985) showed that among the various operations, female labour was engaged mostly in seed bed preparation, transplanting and threshing.

Rameshchand et al. (1985) probing the impact of agricultural modernisation on labour use pattern in Punjab, reported that new agricultural technology had resulted in the replacement of male labour by female labour and women were particularly employed for various operations in paddy such as transplanting, weeding, harvesting and threshing.

Charyulu and Seetharam (1988) while exploring the participation of rural women in agriculture in the hills of Uttar Pradesh discovered that women's role in decision-making did not correspond to their contribution to agricultural production.

Farm women's participation was found to be lowest in preparatory tillage and plant protection by Bhople and Thakar (1988), Santha Govind and Subramanyan (1988) and Nataraju and Lovely (1989). They attributed this to the high labour and skill required for these operations.

A comparative analysis of women's roles in agricultural production and decision-making in the house

holds in five villages of semi-arid tropics, by Mengesha (1990) indicated that women spent more time than men in activities and agricultural tasks. They also found that the amount of farm tasks performed by women did not affect the important agricultural decisions.

Sikka and Swarup (1990) reported that males spent a greater proportion of the time on crop production than females.

Kumari and Nayar (1991) observed that in Kuttanad, one of the prominent rice farming tract of Kerala, operations like weeding, harvesting and processing which require maximum work force were solely undertaken by women.

Sudharani and Raju (1991) in their study about the participation of women in agricultural operations, found that female labour participation was more than male participation in paddy based cropping systems. It was also discovered that weeding, harvesting, transplanting, nursery raising and fertilizer application were the jobs traditionally done by farm women in paddy based cropping system, in the order of importance.

Bhople and Patki (1992) reported that the involvement of farm women in land preparation and plant protection operations was found to be less.

2.11. Relationship between role perception and role performance

Ghiselli and Brown (1955) made relevant observations on tho relationship between role perception and role performance. The authors viewed the concept on different perspectives, a perusal of which is given below.

It was observed that lack of correspondence between prescribed roles, between perceived roles and between prescribed and perceived roles produced situations conducive to friction among individuals and among groups. This was explained as, when people behave in ways that are neither desired nor expected by themselves or by others, interpersonal difficulties are likely to develop and an examination of the degree of correspondence will therefore be fruitful in terms of understanding some of the determinants of intra group and inter group conflicts.

With respect to the correspondence between roles prescribed and roles perceived by others, the authors opined that the role that others prescribe for a given individual may be thought of as a standard they set for evaluating the behaviour of a person in his position with his characteristics. It is said that the roles others see the

individual as actually fulfilling may not correspond with that which they expect of him. It was also suggested that for higher superiors' appraisals of the subordinates, greater must be the similarity between the roles prescribed and roles perceived by others.

Goodale (1975) stated that assessment of an employee's job performance is important both for the worker and his superior for understanding the level of efficiency in the job.

Mitchell (1978) reported that behaviour was a function of one's perception and that changing perceptions would result in changing behaviour.

Significant positive relationship was reported to exist between the role perception and role performance of Junior Agricultural Officers [Sobhana (1982) and Gulothungan (1986)].

Seema (1986) found positive relation between role perception and joint role performance. Kalavathi (1989) reported significant association between role perception and role performance of agricultural graduates employed in different avenues in Kerala.

A wide discrepancy between perceived importance of tasks and their performance of field level agricultural extension workers in Nepal was reported by Kanwar and Williams (1990).

Reddy and Jayaramaiah (1990) revealed positive relationship between role perception and role performance of village extension officers.

2.12 Role perception and role performace in relation with the selected characteristics of labourers

In the absence of adequate quantum of research works directly examining the influence of individual characteristics of agricultural labourers on their role perception and performance, an effort has been made to review the results of other closely related studies available on these lines. This has culminated in arriving at a list of individual characteristics namely, education, size of holding, farming experience, period of employment under the farmer, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer farmer, knowledge of scientific agricultural practices, feeling of responsibility, social participation, contact with extension agency and achievement motivation.

2.12.1. Education

Wolman (1973) defined education as progressive changes of a person affecting knowledge, attitudes and behaviour as a result of formal institution and study, further stating that it may be a development of a person resulting from experience rather than from maturation.

In the present context, education has been defined as the extent of formal or informal learning possessed by the agricultural labourer.

General education was regarded as one of the many factors that had made a remarkable contribution towards increase in productivity [Mehta, (1955); ILO, (1957)].

Dean et al. (1958) found that rationality in decision-making was positively correlated with amount of education. However, Sharma and Singh (1970) and Singh and Sinha (1970) reported non-significant relation of education with decision-making.

As revealed by Krupskaya (1975), the importance of education to workers was very much emphasised when Lenin said that a literate worker will be more efficient than an illiterate worker.

Tchobian (1975) discussing the causes for reluctance to work, reported that high educational status of workers emphasised freedom of action and the educated workers were reluctant towards the highly stratified and authoritarian social organisation prevailing in the undertaking.

Anantharaman (1977) stated that at the consultation level, education did influence the consultation process with regard to plant protection measures and cultural operations.

Padmanabhan (1981) found that there was significant positive relationship between education and efficiency of men labourers. Whereas, in the case of women labourers no significant relationship was found.

Somasundaram (1983) found positive association between level of education and role perception of agricultural officers in Tamil Nadu.

Rexlin (1984) reported that therewas positive and significant relationship between participation of women in decision-making and education.

Seema (1986) observed that educational status contributed significantly to variation in role performance of

farm women in decision-making. Again, the positive association of level of education with role performance was reported by Sharma et al. (1988) and Warris et al. (1990).

The need to examine the education along with other socio-economic characteristics of labourers, to help farmers develop optimal human resource management policies was emphasised by Howard and Mc Ewan (1989).

Bhople and Patki (1992) stated that role performance of farm women labeurers coming from poor and backward castes with no formal education was found to be higher than that of the others.

The preceding review shows that different investigations and observations indicated varying results on the nature of influence of education on role perception and role performance with regard to decision-making. Hence in this study, the relationship is once again subjected to examination.

2.12.2. Size of holding

In the present study, size of holding means the total area of land owned by the agricultural labourer. Dean

et al. (1958) found that rationality in decision-making was positively correlated with size of the holding.

Deb et al. (1968) revealed that rationality of farmer in decision-making was related to size of farm.

Sawer (1973) observed that women's participation in decision-making was negatively associated with farm size.

Dubey et al. (1982) concluded that participation of rural women in decision-making regarding animal husbandry practices remained almost the same irrespective of land holding and herd size.

Aswathi (1983) reported that in large sized farms the task performed by women and their share in decision-making regarding them varied from place to place and country to country.

Seema (1986) reported that there was no significant relationship between size of holding and role perception, role performance and extent of participation in decision-making by farm women.

Based on the presumably indirect studies given above, it was assumed that size of the holding owned by the

labourer will have a say in their own decision-making process with regard to farm activities and this would, in turn bear an influence on their role perception and role performance in decision-making with the farmer.

2.12.3. Farming experience

Chamber's Dictionary (1959) defined experience as practical acquaintance with any matter gained by trial or wisdom derived from the changes and trials of life.

Farming experience in the present study is defined as the period for which the labourer had been engaged in doing agricultural labour as his occupation.

Mehta (1955) stated that the ability of the worker to perform his job more efficiently depends upon many factors, among which one was experience. As against this, ILO (1963) stated that experience was not related to output of workers.

Sundararajan (1972) observed that joint consultation was more in the group having more than 15 years of farming experience in the selection of strains. According to Sawer (1973), women's oppurtunities to participate in the farm management was influenced by their limited knowledge and farming experience.

Padmanabhan (1981) found significant negative relationship between experience and efficiency of agricultural labourers. It was also found that therewas no significant relationship between farming experience and participation in decision-making with the farmer.

Rexlin (1984) reported positive and significant relationship between participation in decision-making and farming experience. In contrary to this, Seema (1986) found no significant relationship of farming experience with role perception, role performance and extent of participation.

The preceding review shows that the relationship between farming experience and participation in decision-making manifests fluctuations either in the positive or in the negative directions. However, it is assumed that farming experience of agricultural labourers has an influence on their role perception and performance in decision-making with the farmer and thus the variable was selected for the study.

2.12.4. Period of employment under the farmer

Padmanabhan (1981) defined this as the number of days the labourer was engaged by the farmer for doing agricultural operations during the previous year.

In the present study, period of employment under the farmer has been defined as the period, the labourer was engaged by the farmer for doing agricultural operations in paddy cultivation during the pervious year.

Homans (1950), emphasising the role of interaction in the development of attitude between persons, hypothesised that if the frequency of interaction between two or more persons increasd, the degree of their liking for one another would increase and vice versa.

Flippo (1980) observed that the degree of subordinate participation was usually limited by such variables as ability levels, interest levels, amount of time available and the area of freedom available.

Padmanabhan (1981) found significant positive correlation between the period of employment under the farmer and efficiency of agricultural labourers.

The above studies have made the researcher anticipate that when a labourer is employed for more number of days under a farmer, the interaction would be more and hence the loyalty towards the farmer would also grow. This, in turn would influence the role perception and role performance of the labourer with regard to decision-making by

the farmer. In short, it is expected that more the interaction, higher will be the involvement of the labourer in the decision-making by the farmer.

2.12.5. Attitude towards job

Clifford and Richard (1971) defined attitude as a learned orientation or disposition towards an object or situation which provide a tendency to respond favourably or unfavourably to the object or situation.

Vasudeva (1976) defined attitude as an enduring organisation of evaluative belief and a learned tendency to react positively or negatively, varying in degree to certain class or objects which determine the actual or potential responses of the individual.

Job attitude was perceived by Gilner (1961) as the feeling, the employee has about his job, his readiness to react in one way or another to specific factors related to job.

Attitude towards job in the present study has been defined as the positive or negative affect associated with doing agricultural labour as an occupation, towards which labourers differ in varying degrees.

Porter et al. (1974) reported that for effective performance favourable attitude is a pre-requisite. Padmanabhan (1981) found significant positive correlation between attitude of agricultural labourers towards job and participation in decision-making with the farmer.

Ashaletha (1993) found that there was no significant relationship between role perception of agricultural assistants and their attitude towards profession, whereas, significant positive relationship existed between their role performance and attitude towards profession.

Based on these studies, it could be assumed that attitude towards job may have some influence on the role perception and role performance of agricultural labourers in decision-making with the farmer.

2.12.6. Attitude towards scientific agricultural practices

In the present context, this has been defined as the positive or negative affect associated with scientific agricultural practices, towards which labourers differ in varying degrees.

Padmanabhan (1981) found positive and significant correlation between the attitude of agricultural labourers towards agriculture and participation in decision-making with the farmer.

On the basis of the study cited above, a relationship was assumed to exist between the attitude of agricultural labourers towards scientific agricultural practices and their role perception and role performance in decision-making with the farmer.

2.12.7. Attitude towards employer farmer

Attitude towards employer farmer, in this study has been defined as the degree of positive or negative affect associated with the employer farmer, towards which labourers differ in varying degrees.

Padmanabhan (1981) found significant positive relationship between attitude towards employer and participation in decision-making with the farmer.

Based on the available study, a logical presumption that the labourers' attitude towards farmer may have definite influence on their role perception and role performance in making decisions with the farmer had been arrived at.

2.12.8. Knowledge of scientific agricultural practices

English and English (1958) defined knowledge as a body of understood information by an individual or by a culture.

In the present study, knowledge of scientific agricultural practices has been defined as the body of understood information by a labourer with respect to scientific agricultural practices in paddy cultivation.

Significant positive correlation between knowledge of labourers regarding scientific agriculture and participation in decision-making with the farmer was reported by Padmanabhan (1981).

Studies conducted by Seema (1986) indicated that knowledge in farming was having negative significant relation with joint role performance, whereas no significant relation of role perception, role performance and extent of participation in implementing the decisions with knowledge in farming was observed.

From these studies, it could be presumed that knowledge of scientific agricultural practices may have some

influence on role perception and role performance of agricultural labourers in decision-making with their employer farmer.

2.12.9. Feeling of responsibility in increasing the agricultural production

Feeling of responsibility has been construed as the sense of responsibility of labourer in increasing the agricultural production of the farmer employing the labourer.

Desai (1969) stated that the feeling of responsibility was related to work out put. According to Currie (1977), ability and willingness of the worker to achieve optimum performance affect the performance of the workers. Schregle (1978) while discussing the essential features of co-determination system, stated that sharing in management decision-making also implied sharing in the responsibilities arising from the decisions jointly taken. Padmanabhan (1981) found significant positive correlation between participation in decision-making with farmer and felling of responsibility in increasing the agricultural production. The need of work commitment from workers for the effectivenes of work was reiterated by Srivastava (1982). A sense of responsibility may be regarded as a favourable

attribute in making decisions and getting them implemented. Hence it was postulated that there would be a relationship between feeling of responsibility in increasing the agricultural production and role perception and role performance of agricultural labourers in making decisions with the farmer.

2.12.10. Social participation

Nelson (1992) defined social participation as the degree to which a respondent is involved in formal organisations either as member or as office bearer.

In the present study, this has been defined as the degree to which an agricultural labourer is involved in formal organization either as member or as an office bearer.

Sharma and Singh (1970) stated that social participation significantly affected the extent of participation in decision-making.

Singh and Sinha (1970) observed that the difference in social participation among farmers had no significant influence over the pattern of decision-making process of artificial fertilizer. They further reported that the social participation had significant influence over the pattern of decision-making of vegetable cultivation.

The observations given above imply that social participation has an influence on the participation in decision-making. Hence, it is reasonable to think that agricultural labourers with more social participation may possess higher consciousness regarding their role in decision-making with the farmer.

2.12.11. Contact with extension agency

This has been construed as the degree to which an agricultural labourer has contact with various extension agencies with the purpose of getting informations, advices or incentives or any other help as needed by him.

Rationality of farmers in decision-making was related to extension contact by Dean et al. (1958). This finding was endorsed by Deb et al. (1968) stating that rationality of farmers was related to extension contact.

Grunig (1970) while studying communication and economic decision-making process of Columbian peasants found that economic rationality of decisions were more in those farmers with high exposure to authoritative sources.

The observations given above imply that social participation has an influence on the participation in decision-making. Hence, it is reasonable to think that agricultural labourers with more social participation may possess higher consciousness regarding their role in decision-making with the farmer.

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Grunig (1970) while studying communication and economic decision-making process of Columbian peasants found that economic rationality of decisions were more in those farmers with high exposure to authoritative sources.

Deepali (1979) concluded that extension contactwas one of the important variables which established relationship with the degree of participation of rural women in agricultural operations.

Rexlin (1984) found no significant relation between participation in decision-making and extension agency contact. Whereas, Seema (1986) reported positive and significant relationship of this characteristic with independent role performance.

In most of the studies mentioned above, extension contact is found to be related to participation in decision-making. Hence it was supposed that an agricultural labourer with more exposure to extension agencies is likely to perceive his role in decision-making with the farmer and perform them in a higher degree.

2.12.12. Achievement motivation

Mc Clelland (1961) stated that achievement motivation is the desire to do well not so much for the sake of social recognition or prestige, but to attain an inner feeling of personal accomplishment.

Achievement motivation for the purpose of the present study has been defined as the spontaneously expressed desire of agricultural labourer to do something well to attain a feeling of personal accomplishment rather than to gain power recognition or profit.

Lowell (1952) proved that high need achievers should perform better than those with low scores. Durand (1975) supported this influence, stating that people with a need to achieve do perform better.

Hosur (1977), Janardhana (1979) and Kalavathi (1989) reported that achievement motivation was not related with job perception and performance.

A significant association between achievement motivation and level of performance was reported by Porter et al. (1974), Durand (1975), Singh and Kumar (1975), Luthans (1983), Reddy (1983) and Singh and Srivastava (1983)

Singh (1974) reported significant negative correlation between the level of performance of Block Development Officers and their achievement motivation. Seema (1986) found that achievement motivation had no significant relationship with role perception, role performance and extent of participation in implementing the decisions.

On the basis of these studies and a logical perspective that individuals with high achievement motivation would perceive their respective roles more and perform them better, it was assumed that achievement motivation is related to role perception and role performance of agricultural labourers in making decision with their employer farmer.

2.13. Conceptual frame work of the study

A conceptual model showing the expected relationship between the role perception/role performance and the selected characteristics of agricultural labourers is shown in Fig. 1.

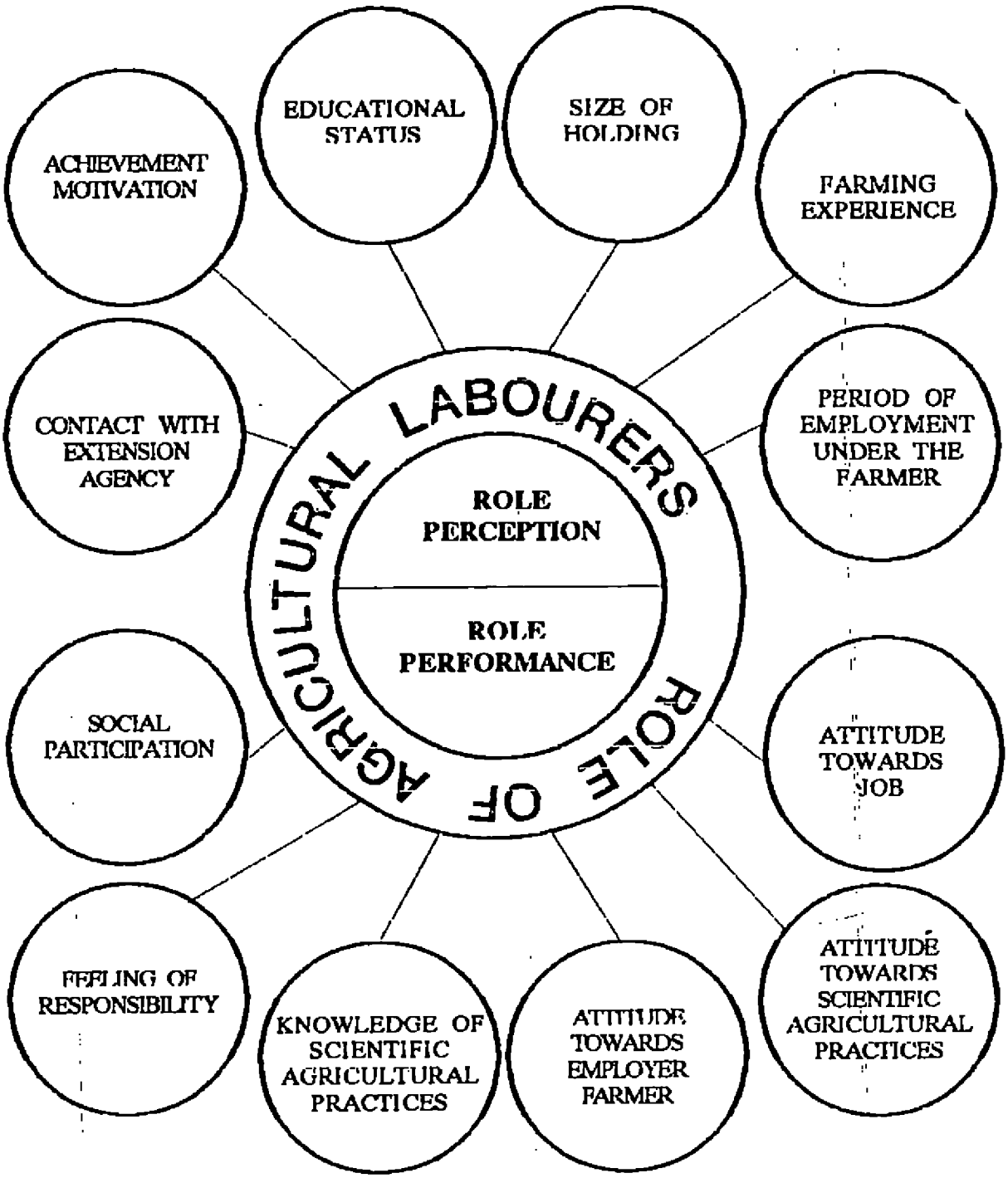

Fig. 1. CONCEPTUAL MODEL FOR THE STUDY

METHODOLOGY

Chapter III

METHODOLOGY

The methods employed in the study are presented in this chapter under the following sections.

1. Location of the study
2. Sampling procedure employed
3. Selection of variables
4. Identification of decision-making areas
5. Operationalisation and measurement of variables
6. Techniques of data collection employed
7. Statistical tools used

3.1. Location of the study

Thiruvananthapuram district was selected for the study from among the nine districts in Kerala which have comparatively high population of agricultural labourers. The district-wise population of agricultural labourers in Kerala is furnished in Appendix I.

A map showing the location of the study is given in Fig. 2.

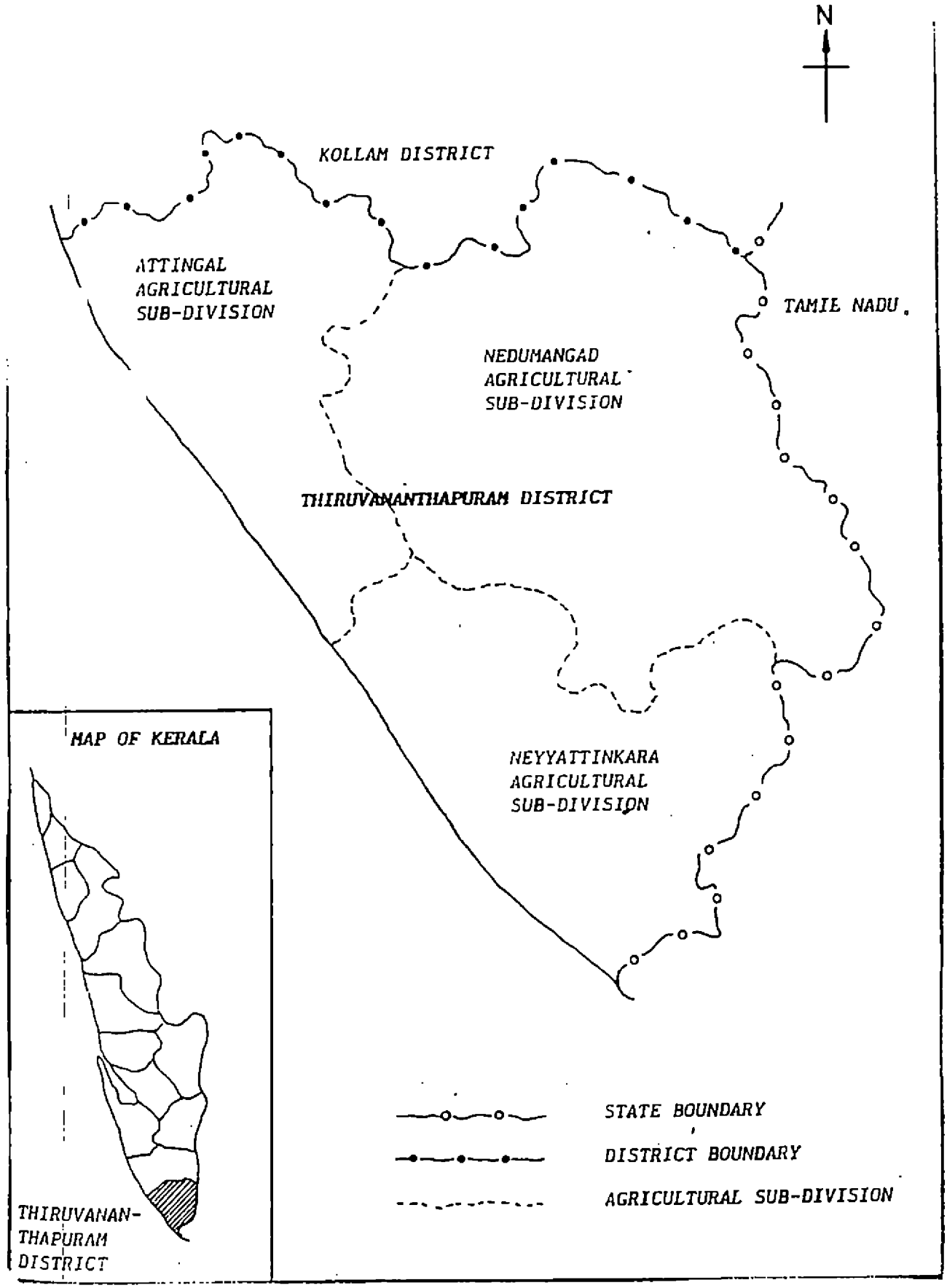

Fig. 2. Map showing the location of the study

3.2. Sampling procedure employed

Since the main purpose of the study was to find out the role of agricultural labourers in the decision-making by farmers in paddy production, samples consisting of a group of farmers and the labourers employed by them had to be selected. For this a stratified two-stage random sampling procedure was followed to select 60 paddy farmers of Thiruvananthapuram district, the strata being Agricultural Sub-division; Krishi Bhavan and farmers from the selected Krishi Bhavan being the first and second stage units respectively.

There are 84 Krishi Bhavans in Thiruvananthapuram district under three Agricultural Sub-divisions, namely, Attingal, Neyyattinkara and Nedumangad. The Sub-division wise distribution of Krishi Bhavans is given in Appendix II.

From each Agricultural Sub-division, two Krishi Bhavans were selected randomly. The Krishi Bhavans thus selected were Pazhayakunnummel and Mudakkal from Attingal Sub-division, Kulathur and Kallikkadu from Neyyattinkara Sub-division, and Anadu and Poovachal from Nedumangadu Sub-division.

3.2.1 Selection of farmers

Ten farmers were randomly selected from each of the six selected Krishi Bhavans, to constitute a sample of 60 farmers as respondents.

3.2.2. Selection of Agricultural Labourers

Each farmer selected was requested to enlist the male and female labourers employed by him for doing agricultural operations for maximum number of days in paddy cultivation during the previous year. From the list received, one male labourer and one female labourer were selected randomly. The labourer once selected was not considered for selection again in the list of labourers of other farmers, in situations where the same labourer had been engaged by two or more farmers.

Thus the sample selected for the study included three ategories of respondents, namely, 60 farmers, 60 male agricultural labourers and 60 female agricultural labourers.

3.3. Selection of Independent Variables

Based on the review of literature, discussions with experts and observations made by the researcher, a list of 20

8 Knowledge of scientific agricultural practices

9. Feeling of responsibility in increasing the agricultural production

10. Social participation

11. Contact with extension agency

12. Achievement motivation

3.4. Identification of Decision Making Areas

The decision-making areas in paddy cultivation were identified on the basis of review of literature, discussion with experts, farmers and agricultural labourers and a preliminary study conducted in a non-sample area.

3.5. Operationalisation and measurement of variables

3.5.1. Dependent Variables

The dependent variables selected for the present study were,

1. Role perception in decision-making.
2. Role performance in decision-making.

3.5.1.1. Role perception in decision-making

This was operationally defined as the degree of the thinking and feeling function of agricultural labourers

towards their role in decision-making of employer farmer regarding agricultural operations in paddy production.

Seema (1986) has measured the role perception of farm women in the decision-making process by collecting the responses on a three point continuum, given against a set of decision-making areas.

Ashaletha (1993) used a five point continuum with categories ranging from least important to most important to find out the role perception of Agricultural Assistants.

In the present study, the selected decision-making areas in paddy production were administered to the agricultural labourers and they were asked to indicate responses regarding their role perception about each decision-making area on a three point continuum namely, 'very important', 'important' and 'not important'. The scoring was done as follows:

Category	Score
Very important	2
Important	1
Not important	0

3.5.1.2. Role performance in decision Making

This was operationalised as the action-function performed by agricultural labourers in relation to decision-making of employer farmer regarding agricultural operations in paddy production.

Seema (1986) measured the role performance of farm women, as either joint performance by both husband and wife or as independent performance with no consultation with husband.

Ashaletha (1993) has developed a scale to quantify the role performance of Agricultural Assistants, in which each role item was rated in a five point continuum, namely, 'always', 'most often', 'often', 'sometimes' and 'never'.

Role performance in the present study was measured by obtaining responses of agricultural labourers on a three point continuum, namely, 'always', 'sometimes' and 'never' in each of the selected areas of decision-making.

The scores were assigned as follows:

Category	Score
Always	2
Sometimes	1
Never	0

3.5.2. Independent Variables

3.5.2.1. Educational status

Educational status was operationally defined as the extent of formal or non-formal learning possessed by the labourers in the time of interview.

Trivedi (1963) developed a scoring system for measuring different levels of education, which he had followed in his socio-economic status scale.

Padmanabhan (1981) adopted the procedure developed by Trivedi (1963) with slight modifications to measure the educational status of agricultural labourers. The scoring pattern was as follows:

Category	Score
Illiterate	0
Can read only	1
Can read and write	2
Primary school	3
Middle school	4
High school	5

The very method adopted by Padmanabhan (1981) has been followed in this study for measuring the educational status of agricultural labourers.

3.5.2.2. Size of holding

This was operationalised as the total area of land possessed by the labourer, measured in cents. The area under dry land, wet land and homestead were measured separately and their summation was taken as size of holding.

3.5.2.3. Farming experience

For the present study, farming experience was operationalised as the period in years for which the labourer had been engaged in doing agricultural labour as an occupation.

Jayavelu (1980), Padmanabhan (1981), Senthil (1983), Raja Babu (1984), Rajagopal (1986), Seema (1986), Chandran (1988) and Jaleel (1992) measured experience in farming in terms of total number of years, the respondent had been engaged in farming activities.

Farming experience, in this study was measured in terms of the total number of years the labourer had been engaged in doing agricultural labour as occupation.

3.5.2.4. Period of employment under the farmer

It was defined as the number of days the labourer was engaged by the farmer for doing agricultural operations in paddy production, during the previous year.

Padmanabhan (1981) measured the period of employment by asking the farmer for how many days he had engaged the labourer during the last year. The days of employment in each cropping season namely, Virippu, Mundakan and Punja were separately recorded and their summation was worked out.

3.5.2.5. Attitude towards Job

Attitude towards job was construed as the degree of positive or negative affect of the agricultural labourer towards doing agricultural labour as an occupation.

Padmanabhan (1981) used an arbitrary scale consisting of twelve items, each of which was rated against a five point continuum ranging from 'strongly agree' to 'strongly disagree', to measure the attitude of agricultural labourers towards their job.

Kalavathi (1989) measured the attitude of agricultural graduates towards various jobs, by means of a procedure similar to the one cited above.

The procedure adopted by Padmanabhan (1981) was used to quantify this variable, in the present study.

The method of scoring adopted was as follows:

Responses	Score
Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

The scoring system was reversed for negative statements. The total score for each respondent was the sum of the scores corresponding to their response patterns.

3.5.2.6. Attitude towards scientific agricultural practices

This is operationalised as the degree of positive or negative disposition of agricultural labourers towards scientific agricultural practices.

In this study, the attitude of agricultural labourers was measured using the attitude scale constructed for the purpose by means of the method of summated ratings described by Likert (1932).

Based on the review of literature, discussions with experts and following the informal criteria for the preparation of attitude statements as given by Edwards and Kilpatrick (1948), hundred statements which would make the respondents reflect their attitude, through their responses were drafted. These statements were then given to experts in the field of agricultural extension for relevancy rating, on the basis of which 40 statements were retained for item analysis.

For the purpose of item analysis, the statements were first administered to 60 non-sample respondents, all agricultural labourers and they were requested to respond to each statement in terms of their own agreement or disagreement with the statement on a five point continuum, namely, 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'.

The responses were assigned numerical weights as follows for positive statements:

Strongly agree	5
Agree	4
Undecided	3
Disagree	2
Strongly disagree	1

The scoring pattern was reversed for negative statements. The respondents were then arranged in rank order of their total scores. Twenty five per cent of the respondents with highest scores and twenty five per cent with lowest scores were selected from among the respondents. These two groups formed the criterion groups in terms of which evaluation of individual statements was done.

For evaluating the responses of the high and low groups to the individual statements, 't' value was computed for each statement using the formula,

$$t = \frac{|\bar{X}_H - \bar{X}_L|}{\sqrt{\frac{s_H^2}{n_H} + \frac{s_L^2}{n_L}}}$$, where

$\bar{X}_H$ - the mean score on a given statement for the highgroup

$\bar{X}_L$ - the mean score for the same statement for the lowgroup

s_H^2 - the variance of the distribution of responses of the high group to the statement

s_L^2 - the variance of the distribution of responses of the low group to the statement

n_H - the number of subjects in the high group

n_L - the number of subjects in the low group

From the statements with 't' values above 1.75, 14 statements were selected for inclusion in the scale construction ('t' values of the statements are given in Appendix IV).

Reliability of the scale

A scale is said to be reliable only when it will consistently produce the same or similar results when applied to the same sample. Here, the reliability was tested by means of split-half method as detailed below.

The scale was administered to 30 non-sample respondents. The summation of scores obtained by odd numbered iems and the summation of scores obtained by even-numbered items of the scale for each respondent were correlated by using the Pearson's product-moment correlation co-efficient. The co-efficient of internal consistency 'r_{oe}'

was worked out using the formula,

$$r_{oe} = \frac{P_{xy}}{\sigma x \; \sigma y}$$

where,

r_{oe} - correlation between odd and even numbered item scores

P_{xy} - product moment of odd and even numbered item scores

σx - standard deviation of the distribution of odd numbered item scores

σy - standard deviation of the distribution of even numbered item scores

The r_{oe} value obtained will give half-test reliability. Therefore, it was corrected using the Spearman-Brown prophecy formula and thus obtained the reliability r_{tt} for the total length of the scale.

The formula was:

$$r_{tt} = \frac{2r_{oe}}{1+r_{oe}}$$

The obtained r_{tt} value 0.8974 was highly significant and thus the reliability was established.

Validity of the scale:

It is the fidelity with which the scale measures, what it intends to measure. The scale was tested for content validity as well as construct validity.

Content Validity :

The main criterion for content validity is how well the content of the scale represents the subject matter under consideration. Since the items for the scale were selected from the universe of contents, it was ensured that the items covered all the aspects of "Scientific agricultural practices".

Construct validity :

It is the degree to which, a measurement of a given concept, when employed in research is able to yield an entire set of relationships that makes a good theoretical sense to the researcher.

In the present study, construct validity was tested by calculating the correlation coefficient between attitude and achievement motivation. The attitude and achievement motivation scores of 30 labourers were measured and a

correlation of 0.5179 was obtained, which was significant. Hence it was concluded that the scale had construct validity as well.

The scale was administered to the sample, ie., agricultural labourers under study and the responses were collected on a five point continuum as 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with scores 5, 4, 3, 2 and 1 respectively, for positive statements. The scoring pattern was reversed in the case of negative statements. The scores of all the 14 statements were summated to get the attitude score of each individual. The possible attitude score of an individual ranged from 14 to 70.

3.5.2.7. Attitude towards employer farmer

It was operationalised as the degree of positive or negative affect associated with the farmer employing the labourer towards which labourers differ in varying degrees.

Padmanabhan (1981) developed a scale to measure this variable by adopting the techniques of Scalogram analysis by Guttman as explained by Goodenough (1944) and Edwards (1957).

The scale consists of six statements, and the responses were gathered as 'agree' or 'disagree' with each statement. The responses carry scores '1' and '0' respectively for positive statements and in the reverse manner for negative statements.

The attitude score of an individual respondent was taken as the sum of the scores obtained for all the scale items.

3.5.2.8. Knowledge of scientific agricultural practices

It was construed as the body of understood information by a labourer in respect of improved agricultural practices in paddy production, as evident from the responses to a set of questions prepared on different aspects of paddy production. Linquist (1951) described the procedure for developing the scale for measuring knowledge.

Sankariah and Singh (1967) measured knowledge of the respondents about improved methods of vegetable cultivation based on a teacher-made test.

Similarly, teacher-made tests were used by Prasad (1978) for measuring the knowledge of the farmers in rice farming and Padmanabhan (1981) for quantifying the knowledge

of agricultural labourers in scientific agricultural practices.

Seema (1986) also used the procedure followed by Prasad (1978) with slight modifications to measure the knowledge of farm women in agriculture.

In the present study, a teacher-made test, consisting of simple question items and constant alternative items (True-False) as explained by Remmers et al. (1967) was prepared by using the procedure given below.

The details about the scientific agricultural practices in paddy production were obtained from the 'Package of practice recommendations for crops' of the Kerala Agricultural University (1991) based on which several test items were formulated. These items included questions to examine the knowledge as well as skill of agricultural labourers. Seventeen test items were selected for the purpose, at the end of a comprehensive perusal done by the experts in the field of agricultural extension in the College of Agriculture, Vellayani. A score of 'one' was given to the correct answer and 'zero' to the wrong answer. The knowledge score of a respondent was the sum of scores obtained for all the test items.

3.5.2.9. Feeling of responsibility in increasing agricultural production

It was operationally defined as the degree of the sense of responsibility of the labourer in increasing the agricultural production of the farmer employing the labourer.

Padmanabhan (1981) measured this variable while studying the influence of labour efficiency on the adoption of improved agricultural practices, by asking the respondent how much responsibility the labourer felt in increasing agricultural production of the farmer employing him and by collecting the responses in a four point continuum. The same procedure was followed in the present study also.

The responses were collected in a four point continuum varying from 'very much responsible' to 'not responsible'. The scoring was done as follows:

Response	Score
Very much responsible	4
Responsible	3
Undecided	2
Not responsible	1

3.5.2.9. Feeling of responsibility in increasing agricultural production

It was operationally defined as the degree of the sense of responsibility of the labourer in increasing the agricultural production of the farmer employing the labourer.

Padmanabhan (1981) measured this variable while studying the influence of labour efficiency on the adoption of improved agricultural practices, by asking the respondent how much responsibility the labourer felt in increasing agricultural production of the farmer employing him and by collecting the responses in a four point continuum. The same procedure was followed in the present study also.

The responses were collected in a four point continuum varying from 'very much responsible' to 'not responsible'. The scoring was done as follows:

Response	Score
Very much responsible	4
Responsible	3
Undecided	2
Not responsible	1

The obtained score manifested the feeling of responsibility of the labourer in increasing the agricultural production of the farmer employing the labourer.

3.5.2.10. Social participation

Social participation was operationalised as the degree of involvement of agricultural labourers in social organisations either as a member or office bearer, considering his regularity of attendance in the meetings of the organisations.

Trivedi (1963) measured organisation participation by means of the following procedures:

	Particulars	Score
a.	Membership in one organisation	1
b.	Membership in more than one organisation	2
c.	Office-holder	3
d.	Distinctive features (MLA, MP etc.)	6

The above procedure was later followed by Reddy (1971), Panneerselvam (1978), Hosamani (1987) and Krishnamoorthy (1988) with slight changes in items and weightages.

Sashipuri (1972) and Rajagopal (1986) adopted the following system with two dimensions.

i) Particulars of participation	Score
a) Member in the past	1
b) Office bearer in the past	2
c) Member at present	3
d) Office bearer at present	4

ii) Degree of participation	Score
a) Participation in planning activities	1
b) Participation in organising activities	2
c) Participation in conducting activities	3

The membership score and participation score were summed up for one organisation to get the social participation score for that organisation. Similarly, the social participation score for all the organisation in which the respondent reported participation were found out. Summation of these scores formed the social participation score of the respondent.

Lokhande (1974) quantified social participation using a procedure, as follows:

Items	Score
No membership	0
Membership in one organisation	1
Membership in more than one organisation	2
Office bearer in one organisation	3
Office bearer in more than one organisation	4
Distinctive features (MLA, MP etc.)	6

Attendance in meetings either as a member or as an office bearer was considered important. For attending meetings 'regularly', 'occassionally' and 'never', the scores given were 3, 2 and 1 respectively.

The final score of a respondent was obtained by multiplying the scores secured as a member or office bearer with the scores secured for attendance in meetings and then adding them up for all the social organisations in which participation was reported.

The same method was adopted by Viju (1985), Subramoniam (1986), Sabapathi (1988) and Jaleel (1992). The very same scoring system was adopted for the purpose of the present study also.

3.5.2.11. Contact with extension agency

It was operationally defined as the contact of the agricultural labourers with the extension agencies for various purposes, after considering whether the respondent was aware of the extension agency or not.

Badarinarayanan (1977) made use of a procedure to calculate the final score value of contact with extension agency. This was later followed by Jaleel (1992). Procedure was as follows:

a. Response	Score
Known	1
Not known	0

b. Frequency of contact	Score
i) Once in a week	6
ii) Once in a fortnight	5
iii) Once in a month	4

iv) Once in a quarter	3
v) Once in 6 months	2
vi) Once in a year	1

c) Purpose	Score
i) To get technical guidance	5
ii) To avail subsidy and agricultural implements	4
iii) To avail input assistance	3
iv) Non-Agricultural purpose	2
v) Personal (casual)	1

The scores for the three dimensions were summed up to get the extension agent contact score for that particular extension agent by the respondent. Such extension agent contact score for all the extension agents with whom the respondent expressed contact were pooled to get 'Contact with extension agency' score for that respondent. The same procedure was adopted for this study.

3.5.2.12. Achievement motivation

This was operationalised as the spontaneously expressed desire of an agricultural labourer to do something well for its own sake than to gain power, recognition or profit.

Singh (1974) developed a scale to measure achievement motivation, which included six items with five alternative responses to each item and the scoring was done by the method of summated rating.

Seema (1986) used the same scale to measure achievement motivation of farm women, in her study about the role of farm women in decision-making process. Kalavathi (1989) used the scale adopted by Manohari (1988), which included seven items and the response to each of them was recorded along a five point continuum namely, 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with scores 5, 4, 3, 2 and 1 respectively. The very same procedure was adopted in the present study also.

3.6. Techniques of data collection employed

Separate structured draft interview schedules were prepared for farmers and agricultural labourers. The interview schedules were pre-tested, suitable modification made and finalised. The final forms of the interview schedule are presented in Appendix V and VI. Malayalam version of the interview schedules was prepared for use at the time of interview.

The data were collected during the months of June, July and August of 1993. All the 180 respondents, consisting of farmers and labourers were directly interviewed by the researcher. The respondents were contacted either in their respective houses or at the work places to establish rapport with them and then to collect the data. Questions were put to them in a natural conversational manner and responses were recorded in the schedule itself.

3.7. Statistical Tools Employed

The data collected from the farmers and agricultural labourers were coded, tabulated and analysed using the following statistical techniques.

3.7.1. Percentages

Percentages were used for finding out the distribution of respondents along the role perception and role performance in decision-making.

3.7.2. Mean

The respondents were categorised into low, and high groups in respect of the different dependent variables by means of the following method.

Low : < Mean

High : ≥ Mean

3.7.3. Simple correlation

The nature and degree of relationship between the independent variables (x_i) and the dependent variables (y) was determined by simple linear correlation.

The formula used to compute the simple correlation was

$$r_{xy} = \frac{C_{xy}}{s_x \; s_y}$$

r_{xy} - correlation between x and y

C_{xy} - Product moment of x and y

s_x, s_y - Standard deviation of the distribution of x and y

3.7.4. Step-wise Regression Analysis

Step-wise regression (Draper and Smith, 1966) was employed to obtain information regarding the best subgroup of variables and the relative contribution of each of these independent variable (X_i) in contributing to the variations to the dependent variable (Y). Stepwise regression analysis

selects the best subset of variables in predicting variations in the dependent variables in such a manner that

(a) it yields the largest multiple correlation among all subsets,

(b) inclusion of the remaining variables does not significantly improve the prediction of the dependent variable.

3.7.5. Path Analysis

Path analysis was done to know the direct and indirect influence of the independent variables on the dependent variables and to know the extent of determination of these variables on the dependent variables.

3.7.6. Students' t test

This test was used to test the significance of difference between male agricultural labourers and female agricultural labourers with respect to role perception and role performance of different decision-making areas.

RESULTS

Chapter IV

RESULTS

The results of the present study in accordance with the objectives set earlier are given in this chapter under the following heads.

1. Identification of areas of decision-making in paddy production.
2. Role perception of agricultural labourers in decision-making with farmers.
3. Role performance of agricultural labourers in decision-making with farmers.
4. Relationship between overall role perception and role performance
5. Difference between male and female agricultural labourers in role perception and role performance.
6. Role performance of agricultural labourers in decision-making as perceived by farmers.
7. Relationship between selected characteristics of agricultural labourers and their role perception.
8. Relationship between selected characteristics of agricultural labourers and their role performance.
9. Results of step-wise regression analysis
10. Resuts of path analysis.

4.1. Identification of areas of decision-making in paddy production

Thirty one areas of decision-making in paddy production process were identified on the basis of review of

literature, discussions with agricultural experts, farmers and agricultural labourers and a preliminary study conducted in a non-sample area. The identified areas were categorised under ten broad areas. They are :

Selection of varieties and seed rate

1. Variety to be selected.
2. Seed rate to be used.

Seed treatment

3. Whether the seeds are to be treated or not.
4. Type of seed treatment to be done.
5. Chemicals to be used in seed treatment
6. Quantity of chemicals to be used.

Nursery preparation

7. Time for pulling out seedlings.
8. Interval of irrigation required in nursery.

Land preparation

9. Number of ploughings required.
10. Whether the ploughing is to be done mechanically or by using draught animals.
11. Number of labourers required for land preparation

Transplanting

12. Spacing to be adopted for transplanting.
13. Number of labourers required for transplanting.

Application of manures and fertilizers and irrigation

14. Type of manures and fertilizers to be used in basal application.
15. Type of fertilizers to be used for top dressing.
16. Quantity of fertilizers to be used for top dressing.
17. Place from where the fertilizers are to be purchased.
18. Irrigation of crop in the mainfield.

Weed control

19. Time of weeding.
20. Number of labourers required for weeding operations.
21. Type of weedicides to be used.
22. Quantity of weedicides to be used.

Plant protection

23. Type of plant protection chemicals (pesticides and fungicides) to be used.
24. Labour requirement for the application of plant protection chemicals.
25. Time of application of plant protection chemicals.
26. Quantity of chemicals to be used.

Harvesting

27. Time of harvest.

28. Number of labourers required for harvesting.

Processing and marketing

29. Number of labourers required for threshing, winnowing and processing of straw.

30. Quantity of grains to be stored for seed.

31. Method of marketing the produce.

4.2. Role perception of agricultural labourers in decision-making with the farmers

Table 4.1 furnishes the distribution of male and female agricultural labourers based on their perception about their role in decision making with farmers.

4.2.1. Role perception of male agricultural labourers in decision making with the farmers

It was observed that no respondent perceived his role as 'very important' in deciding various aspects of seed treatment, whether the ploughing is to be done mechanically or using draught animals, spacing to be adopted for transplanting, place from where fertilizers are to be purchased, type of weedicides to be used, quantity of

Table 4.1 Role perception of male and female agricultural laboures in decision-making

Areas of Decision making	Male			Female		
	Very important ferquency (%)	Important frequency (%)	Not important frequency (%)	very important frequency (%)	Important frequency (%)	Not Important frequency (%
1 Variety to be selected	6 (10)	49 (81.67)	5 (8.33)	0 (0)	0 (0)	60 (100)
2 Seed rate to be used	7 (11.67)	40 (66.67)	13 (21.67)	0 (0)	0 (0)	60 (100)
3 Whether the seeds are to be treated or not	0 (0)	3 (5)	57 (95)	0 (0)	0 (0)	60 (100)
4 Type of seed treatment to be done	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
5 Chemicals to be used in seed treatment	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
6 Quantity of chemicals to be used	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
7 Time of pulling out seedlings	2 (3.33)	11 (18.33)	47 (78.33)	0 (0)	0 (0)	60 (100)
8 Interval of irrigation required in nursery	13 (21.67)	43 (71.67)	4 (6.67)	0 (0)	3 (5)	57 (95)
9 Number of ploughings required	23 (38.33)	33 (55.00)	4 (6.67)	0 (0)	0 (0)	60 (100)
10 Whether the ploughing is to be done mechanically or by using draught animals	0 (0)	6 (10.00)	54 (90)	0 (0)	0 (0)	60 (100)
11 Number of labourers required for land prepration	29 (48.33)	29 (48.33)	2 (3.33)	0 (0)	2 (3.33)	58 (96.67)
12 Spacing to be adopted for transplanting	0 (0)	17 (28.33)	43 (71.67)	16 (26.67)	44 (73.33)	0 (0)
13 Number of labourers required for transplanting	12 (20)	39 (65.00)	9 (5)	2 (3.33)	49 (81.67)	9 (5)
14 Type of manures and fertilizers to be used in basal application	1 (1.67)	51 (85.00)	8 (13.33)	0 (0)	0 (0)	60 (100)

(Cont

Table 4.1. (Cont.....)

Areas of Decision making	Male			Female		
	Very important ferquency (%)	Important frequency (%)	Not Important frequency (%)	Very Important frequency (%)	Important frequency (%)	Not Important frequency (%)
15 Type of fertilizers required for top dressing	6 (10)	51 (85.00)	3 (5)	0 (0)	0 (0)	60 (100)
16 Quantity of fertilizers to be used for top dressing	5 (8.33)	43 (71.67)	12 (20)	0 (0)	0 (0)	60 (100)
17 Place from where the fertilizers are to be purchased	0 (0)	12 (20.00)	48 (80)	0 (0)	0 (0)	60 (100)
18 Irrigration of crop in the main field	6 (10)	51 (85.00)	3 (5)	0 (0)	3 (5)	57 (95)
19 Time of weeding	8 (13.33)	47 (78.33)	5 (8.33)	9 (15)	43 (71.67)	8 (13.33)
20 Number of laboures required for weeding operations	13 (21.67)	40 (66.67)	7 (11.67)	2 (3.33)	43 (71.67)	15 (25)
21 Type of weedicides to be used	0 (0)	1 (1.67)	59 (98.33)	0 (0)	0 (0)	60 (100)
22 Quantity of weedicides to be used	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
23 Type of plant protection chemicals (pesticides and fungicides) to be used	3 (5)	29 (48.33)	28 (46.67)	0 (0)	0 (0)	60 (100)
24 Labour requirement for the application of plant protection chemicals	1 (1.67)	35 (58.33)	24 (40)	0 (0)	0 (0)	60 (100)
25 Time of application of plant protection chemicals	5 (8.33)	46 (76.67)	9 (15)	0 (0)	0 (0)	60 (100)
26 Quantity of PP chemicals to be used	0 (0)	38 (63.33)	22 (36.67)	0 (0)	0 (0)	60 (100)
27 Time of harvest	24 (40.00)	36 (60.00)	0 (0)	5 (8.33)	40 (66.67)	15 (25)
28 Number of laboures required for harvesting	17 (28.33)	38 (63.33)	5 (8.33)	3 (5)	39 (65)	18 (30)
29 Number of labourers required for threshing winnowing and processing of straw	3 (5.00)	33 (55.00)	24 (40)	0 (0)	39 (65)	21 (35)
30 Quantity of grains to be stored for seed	0 (0)	28 (46.67)	32 (53.33)	0 (0)	6 (10)	54 (90)
31 Method of marketing the produce	0 (0)	2 (3.33)	58 (96.67)	0 (0)	0 (0)	60 (100)

weedicides to be used, quantity of plant protection chemicals to be used, quantity of grains to be stored for seed and method of marketing the produce.

At the same time, 5 per cent of the respondents perceived their role in deciding whether the seeds are to be treated or not as 'important'. However, role in deciding the type of seed treatment, chemicals and quantity of chemicals to be used in seed treatment was perceived to be 'not important' by all the male agricultural labourers chosen for the study.

Role in deciding the type of weedicides to be used, method of marketing the produce, whether the ploughing is to be done mechanically or by draught animals, place from where fertilizers are to be purchased, spacing to be adopted for transplanting, quantity of grains to be stored for seed and quantity of plant protection chemicals to be used was perceived as 'important' by 1.67 per cent, 3.33 per cent, 10 per cent, 20 per cent, 28.33 per cent, 46.67 per cent and 63.33 per cent of the respondents respectively. Rest of them perceived their role in the above areas as 'not important'.

A meagre fraction (1.67%) of the respondents perceived their role in deciding the type of manures and

fertilizers to be used in basal application and labour requirement for the application of plant protection chemicals as 'very important'. Role in these decision making areas were perceived to be 'important' by 85 per cent and 58.33 per cent of the male agricultural labourers respectively.

A mere 5 per cent of the labourers regarded their role in making decisions on the type of pesticides and fungicides to be used and number of labourers required for threshing, winnowing and processing of straw as 'very important'. They were perceived to be 'important' by 48.33 per cent and 55 per cent of the respondents respectively. 'No importance' was attached to the role in these areas of decision making by rest of the labourers.

When a small fraction (3.33 per cent) of the male labourers perceived their role in deciding the time of pulling out seedling as 'very important', 18.33 per cent viewed their role as 'important' and the remaining 78.33 per cent, as 'not important'.

A portion of 8.33 per cent of the respondents expressed the opinion that their role in deciding the quantity of fertilizers to be used for top dressing and time of application of plant protection chemicals is 'very important'. Considerably larger sections of the respondents

viewed their role in these two areas as 'important' (71.67% and 76.67% respectively). The remaining fraction did not ascribe any importance to the role in these decision making areas.

Among the respondents, a portion of only 10 per cent perceived their role in decision making as 'very important' with respect to varietal selection, type of fertilizers required for top dressing and irrigation of crop in mainfield. Whereas, a substantially bigger fraction (81.67%) perceived the role as 'important' in deciding the variety to be selected. Eighty five per cent also responded the same, regarding their role in the other two decision making areas.

About 20 per cent of the male agricultural labourers observed their role to be 'very important' in deciding the number of labourers required for transplanting. Sixty five per cent of the respondents perceived this role to be 'important' and 15 per cent viewed it as 'not important'.

Role of agricultural labourers in deciding the seed rate to be used and time of weeding was considered as 'very important' by 11.67 per cent and 13.33 per cent and 'important' by 66.67 per cent and 78.33 per cent of the respondents respectively.

It was also found that 21.67 per cent of the male agricultural labourers chosen for the study viewed their role in deciding the interval of irrigation required in the nursery and number of labourers required for weeding operations as 'very important'. It is noteworthy to state that considerably larger sections of the labourers observed their role in the above two decision making areas as 'important'. (71.67% and 66.67% respectively), while the remaining fraction did not assign any importance to their role in these areas.

The percentages of respondents, who had perceived their role in the remaining areas of decision making as 'very important' are: number of labourers required for harvesting (28.33%), number of ploughings required (38.33%), time of harvest (40%) and number of labourers required for land preparation (48.33%).

Among these decision making areas, the first one was considered to be 'important' by 63.33% and 'not important' by 8.33 per cent. The second one was perceived to be 'important' by 55 per cent and the third one as 'important by 60 per cent of the respondents. The last one was perceived to be 'important' by an equal fraction (48.33 per cent itself), with respect to the role in decision making.

4.2.2. Role perception of female agricultural labourers in decision making with the farmers

A close examination of the table reveals that role in 20 out of 31 areas of decision making was perceived to be 'not important' by all the female agricultural labourers selected for the study.

Among the remaining areas of decision making, role in deciding the spacing to be adopted for transplanting was perceived to be 'very important' by 26.67 per cent of the respondents. Rest of the respondents (73.33%) perceived their role in this area as 'important'.

Only a few of the respondents (3.33%) perceived their role in deciding the number of labourers required for transplanting as 'very important'. Meanwhile, a greater fraction (81.67%) perceived their role as 'important' in taking this decision and 15 per cent did not attach any 'importance' to their role in this area.

While 95 per cent of the female labourers perceived their role in deciding the interval of irrigation required in the nursery as 'not important', a small fraction (5 per cent) perceived it to be 'important'. Notably, the distribution of respondents was exactly the same in the case

of decision making regarding the irrigation of crop in the mainfield as well.

Similarly, while a majority (96.67%) of the respondents did not attach any importance to their role in deciding the number of labourers required for land preparation, a tiny fraction (3.33%) viewed this role as 'important'.

Role in deciding the number of labourers required for weeding operations, number of labourers required for harvesting, time of harvest and time of weeding was perceived to be 'very important' by 3.33 per cent, 5 per cent, 8.33 per cent and 15 per cent of the respondents respectively and 'important' by 71.67 per cent, 65 per cent, 66.67 per cent and 71.67 per cent respectively. Remaining fraction of respondents regarded their role in these decision-making areas to be of no importance at all.

A substantially bigger fraction (65%) considered the role in deciding the number of labourers required for threshing, winnowing and processing of straw as 'important'. With regard to the role in deciding the quantity of grains to be stored for seed, a portion of 10 per cent of the female agricultural labourers perceived it as 'important' and the remaining 90 per cent viewed it as 'not important'.

4.2.3. Distribution of agricultural labourers based on their overall role perception

The details pertaining to the distribution of agricultural labourers based on their overall role perception are furnished in Table 4.2.

Table 4.2. Distribution of male and female agricultural labourers based on their overall role perception

Sl. No.	Category	Male (mean=21.13)		Female (mean=6.43)	
		Frequency	Percentage	Frequency	Percentage
1.	Low (<mean)	36	60	37	61.67
2.	High (>mean)	24	40	23	38.33

It is evident that 60 per cent of the male agricultural labourers was having low role perception, while 40 per cent possessed high role perception. Interestingly, the distribution of female agricultural labourers also followed a similar pattern, wherein majority of the respondents (61.67%) belonged to the low group and 38.33 per cent belonged to the high group.

4.3. Role performance of agricultural labourers in decision making with the farmer

Table 4.3. gives the details regarding the distribution of male and female agricultural labourers based on their role performances in decision making with farmer.

4.3.1. Role performance of male agricultural labourers in decision making with the farmer

As observed from Table 4.3 no male agricultural labourer had ever participated in making decisions with the farmer regarding the various aspects of seed treatment and use of weedicides.

It was also found that no male agricultural labourer had 'always' taken part in deciding the use of mechanical means of ploughing, spacing to be adopted for transplanting, place from fertilizers are to be purchased, type of plant protection chemicals (pesticides and fungicides) to be used, quantity of plant protection chemicals required, quantity of grains to be stored for seed and method of marketing the produce.

A negligible fraction (1.67%) of the respondents recollected that they had participated in deciding the method of marketing the produce 'sometimes'. Similarly, negligible fractions of respondents were 'sometimes' found to

Table 4.3. Role performance of male and female agricultural labourers in decision-making

	Areas of Decision making	Male			Female		
		Always ferquency(%)	Some times frequency(%)	Never frequency(%)	Always frequency(%)	Some times frequency(%)	Never frequency(%)
1	Variety to be selected	6 (10)	42 (70)	12 (20)	0 (0)	0 (0)	60 (100)
2	Seed rate to be used	6 (10)	28 (46.67)	26 (43.33)	0 (0)	0 (0)	60 (100)
3	Whether the seeds are to be treated or not	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
4	Type of seed treatment to be done	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
5	Chemicals to be used in seed treatment	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
6	Quantity of chemicals to be used	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
7	Time of pulling out seedlings	2 (3.33)	11 (18.33)	47 (78.33)	0 (0)	0 (0)	60 (100)
8	Interval of irrigation required in nursery	11 (18.33)	46 (76.67)	3 (5.00)	0 (0)	3 (5)	57 (95)
9	Number of ploughings required	19 (31.67)	35 (58.33)	6 (10)	0 (0)	0 (0)	60 (100)
10	Whether the ploughing is to be done mechanically or by using draught animals	0 (0)	3 (5)	57 (95)	0 (0)	0 (0)	60 (100)
11	Number of labourers required for land prepration	25 (41.67)	30 (50)	5 (8.33)	0 (0)	0 (0)	60 (100)
12	Spacing to be adopted for transplanting	0 (0)	5 (8.33)	55 (91.67)	6 (10)	49 (81.67)	5 (8.33)
13	Number of labourers required for transplanting	8 (13.33)	39 (65)	13 (21.67)	1 (1.67)	26 (43.33)	33 (55)
14	Type of manures and fertilizers to be used in basal application	3 (5)	25 (41.67)	32 (53.33)	0 (0)	0 (0)	60 (100)
15	Type of fertilizers required for top dressing	1 (1.67)	38 (63.33)	21 (35)	0 (0)	0 (0)	60 (100)

(Cont

Table 4.3. (Cont...)

Areas of Decision making	Male			Female		
	Always ferquency(%)	Sometimes frequency(%)	Never frequency(%)	Always frequency(%)	Some times frequency(%)	Never frequency(%)
16 Quantity of fertilizers to be used for top dressing	5 (8.33)	25 (41.67)	30 (50)	0 (0)	0 (0)	60 (100)
17 Place from where the fertilizers are to be purchased	0 (0)	9 (15)	51 (85)	0 (0)	0 (0)	60 (100)
18 Irrigration of crop in the main field	6 (10)	45 (75)	9 (15)	0 (0)	4 (6.67)	56 (93.33)
19 Time of weeding	9 (15)	41 (68.33)	10 (16.67)	0 (0)	30 (50)	30 (50)
20 Number of labourers required for weeding operations	11 (18.33)	41 (68.33)	8 (13.33)	0 (0)	28 (46.67)	32 (53.33)
21 Type of weedicides to be used	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
22 Quantity of weedicides to be used	0 (0)	0 (0)	60 (100)	0 (0)	0 (0)	60 (100)
23 Type of plant protection chemicals (pesticides and fungicides) to be used	0 (0)	15 (25)	45 (75)	0 (0)	0 (0)	60 (100)
24 Labour requirement for the application of plant protection chemicals	1 (1.67)	30 (50)	29 (48.33)	0 (0)	0 (0)	60 (100)
25 Time of application of plant protection chemicals	5 (8.33)	34 (56.67)	21 (35)	0 (0)	0 (0)	60 (100)
26 Quantity of PP chemicals to be used	0 (0)	20 (33.33)	40 (66.67)	0 (0)	0 (0)	60 (100)
27 Time of harvest	22 (36.67)	34 (56.67)	4 (6.67)	0 (0)	12 (20)	48 (80)
28 Number of labourers required for harvesting	9 (15)	40 (66.67)	11 (18.33)	0 (0)	32 (53.33)	28 (46.67)
29 Number of labourers required for threshing winnowing and processing of straw	1 (1.67)	24 (40)	35 (58.33)	0 (0)	32 (53.33)	28 (46.67)
30 Quantity of grains to be stored for seed	0 (0)	15 (25)	45 (75)	0 (0)	3 (5)	57 (95)
31 Method of marketing the produce	0 (0)	1 (1.67)	59 (98.33)	0 (0)	0 (0)	60 (100)

have involved in deciding whether mechanical ploughing is to be adopted (5%), spacing to be adopted for transplanting (8.33%) and place from where fertilizers are to be purchased (15%).

Twenty five per cent of the respondents reported that they had involved 'some times' in deciding the type of plant protection chemicals (pesticides and fungicides) to be used and quantity of grains to be used for seed.

It was found that, there had been a good deal of role performance by male agricultural labourers in deciding the variety, seed rate and irrigation of crop in the mainfield. Ten per cent of the respondents had 'always' participated in making these decisions with the farmer. Role performance was still higher in decision making areas namely, number of labourers required for transplanting (13.33%), time of weeding (15%), number of labourers required for harvesting (15%), interval of irrigation required in the nursery (18.33%)., number of labours required for weeding operations (18.33%), number of ploughings required (31.67%) time of harvest (36.67%) and number of labourers required for land preparation (41.67%).

Only a meagre fraction (1.67%) of the respondents reported that they had 'always' performed their role in

decision making areas, namely, type of fertilizers required for top dressing, labour requirement for applying plant protection chemicals, threshing, winnowing and processing of straw.

Smaller fractions of respondents reported that they had 'always' been involved in deciding the time of pulling out seedings (3.33%), type of manures and fertilizers required in basal application (5%), quantity of fertilizers to be used for top dressing (8.33%) and time of application of plant protection chemicals (8.33%).

It was observed that considerably larger fractions of male agricultural labourers had 'sometimes' participated in majority of the decision making areas. The percentage of respondents, who had reportedly performed their role 'sometimes', in various decision making areas are given below:

Interval of irrigation required in the nursery (76.67%), irrigation of crop in the mainfield (75%), variety to be selected (70%), time of weeding and number of labourers required for weeding (68.33%), number of labourers required for harvest (66.67%), number of labourers required for transplanting (65%), type of fertilizers required for top dressing (63.33%), number of ploughings required (58.33%), time of application of plant protection chemicals (56.67%),

time of harvest (56.67%), labour requirement for land preparation and application of plant protection chemicals (50%), seed rate to be used (46.67%), type of manures and fertilizers to be used in basal application and quantity of fertilizers to be used for top dressing (41.67%), number of labourers required for threshing, winnowing and processing of straw (40%) and time of pulling out seedling (18.33%).

The remaining portion of the respondents reported that they had 'never' performed any role in the above decision making areas.

4.3.2. Role performance of female agricultural labourers in decision making with the farmer

All the sixty female agricultural labourers selected for the study unequivocally reported that they had 'never' performed any role in deciding the variety to be selected, seed rate to be used, the various aspects of seed treatment, time of pulling out seedlings, number of ploughings required, whether mechanical ploughing is to be adopted, number of labourers required for land preparation, type of manures and fertilizers to be used in basal application, type and quantity of fertilizers required for top dressing, type and quantity of weedicides to be used, type and quantity of plant protection chemicals to be used, labour requirement for the application of plant protection chemicals to be used,

time of application of plant protection chemicals and method of marketing the produce.

Ten per cent of the female agricultural labourers were found to have 'always' performed their role in deciding the spacing to be adopted for transplanting. It was found that, while a fraction of 5 per cent of the respondents opined that they had 'sometimes' participated in deciding the interval of irrigation required in the nursery, 95 per cent reported that there had been 'no' involvement at all. The distribution of respondents was the same in the case of role performance in deciding the quantity of grains to be stored for seed as well.

A substantially larger fraction (81.67%) of the female labourers reported that they had 'some times' performed their role in deciding the spacing to be adopted for transplanting.

Role in deciding the number of labourers required for harvesting, threshing, winnowing and processing of straw was found to be performed 'sometimes' by 53.33 per cent of the female labourers. The remaining section (46.67%) had 'never' performed any role in making these decisions. Role in deciding the time of weeding was performed 'sometimes' by 50 per cent of the respondents.

A section of 46.67 per cent of the female labourers reported that they had performed their role 'some times' in deciding the number of labourers required for weeding. Role in deciding the number of labourers required for transplanting was reported to be performed 'some times' by 43.33 per cent of respondents.

A portion of 20 per cent of the female labourers recollected that they had taken part 'some times' in deciding the time of harvest. It was also observed that only a meagre fraction (6.67 per cent) of the respondents were consulted while deciding the irrigation of crop in the mainfield.

4.3.3. Distribution of agricultural labourers based on their overall role performance

Table 4.4 furnishes the details of the distribution.

Table 4.4. Distribution of male and female agricultural labourers based on their overall role performance

Sl. No.	Category	Male (mean=16.77)		Female (mean=3.92)	
		Frequency	Percentage	Frequency	Percentage
1.	Low < mean	36	60	28	46.66
2.	High ≥ mean	24	40	32	53.33

The distribution indicates that a major fraction (60%) of the male respondents belonged to low group based on their overall role performance. As against this, distribution of female agricultural labourers shows that a majority (53.33%) of the respondents belonged to high group based on their overall role performance.

4.4. Relationship between role perception and role performance

High significant and positive correlation was found to exist between overall role perception and role performance of both male and female agricultural labourers.

Category	Correlation coefficient
male	0.9385^{**}
female	0.8254^{**}

4.5. Difference between male and female agricultural labourers in role perception and role performance

Table 4.5 furnished below vividly indicates that there was significant difference between male and female agricultural labourers in their role perception and role performance.

Table 4.5. Difference between male and female agricultural labourers in role perception and role performance

	Male		Female		t_{118}
	Mean	SEd	Mean	SEd	
Role perception	21.133	43.948	6.383	2.8167	16.57**
Role performance	16.7667	54.012	3.9167	2.7895	13.096**

** - Significant at 1% level

4.5.1. Difference between male and female agricultural labourers in the perception and performance of selected role items

It was quite obvious from the observations that there had been discernible differences in the responses made by male and female agricultural labourers regarding perception and performance of the 31 role items identified for the study. While male agricultural labourers had expressed their opinion about almost all the role items, female labourers made their remarks on only a few decision making areas.

Test of significance was done to find out whether there existed any significant difference in the perception and performance of role items among the labourers on which both male and female labourers had expressed their opinion.

The details are furnished in Table 4.6 and 4.7.

Table 4.6. Difference between male and female agricultural labourers in the perception of selected role items

Item	Male		Female		t_{118}
	Mean	SEd	Mean	SEd	
1. Interval of irrigation required in nursery	1.15	0.2608	0.05	0.0475	15.22**
2. No. of labourers required for land preparation	1.45	0.3142	0.03	0.0324	18.53**
3. Spacing to be adopted for transplanting	0.28	0.2031	1.26	0.2124	11.67**
4. No. of labourers required for transplanting	1.05	0.3475	0.88	0.1756	1.81ns
5. Irrigation of crop in the mainfield	1.05	0.1475	0.05	0.475	17.39**
6. Time of weeding	1.05	0.2142	1.016	0.3007	0.37ns
7. No. of labourers required for weeding	1.1	0.3233	0.78	0.2416	3.27**
8. Time of harvest	1.4	0.24	0.83	0.311	5.9**
9. No. of labourers required for harvest	1.2	0.3267	0.75	0.2875	4.41**
10. No. of labourers required for threshing, winnowing and processing of straw	0.65	0.3275	0.65	0.3275	0ns
11. Quantity of grains to be stored for seed	0.47	0.2458	0.1	0.09	4.88**

** - significant at 1% level ns - not significant

As evident from the Table 4.6, significant difference was observed between male and female agricultural labourers in the perception of their role in decision making areas namely, 'interval of irrigation required in the nursery, number of labourers required for land preparation, spacing to be adopted for transplanting, irrigation of crop in the mainfield, number of labourers required for weeding, time of harvest, number of labourers required for harvest, and quantity of grains to be stored for seed.

The difference between male and female agricultural labourers in perceiving their roles regarding decisions on number of laboures required for transplanting, time of weeding and number of labourers required for threshing, winnowing and processing of straw was non-significant.

The difference was found to be very high in the case of role perception regarding decisions like number of labourers required for land preparation, ($t=18.53^{**}$), irrigation of crop in the mainfield ($t=17.39^{**}$), interval of irrigation required in nursery ($t=15.22^{**}$) and spacing to be adopted for transplanting ($t=11.67^{**}$).

Table 4.7. Difference between male and female agricultural labourers in the performance of selected role items

Item	Male		Female		t_{118}
	Mean	SEd	Mean	SEd	
1. Interval of irrigation required in nursery	1.13	0.2231	0.05	0.0475	15.94**
2. No. of labourers required for land preparation	1.33	0.3978	0	0	16.20**
3. Spacing to be adopted for transplanting	0.083	0.0764	1.017	0.1824	14.10**
4. No. of labourers required for transplanting	0.92	0.3369	0.47	0.2791	4.40**
5. Irrigation of crop in the mainfield	0.95	0.2475	0.06	0.0631	12.27**
6. Time of weeding	0.98	0.0329	0.5	0.2507	4.87**
7. No. of labourers required for weeding	1.05	0.3142	0.47	0.2458	5.95**
8. Time of harvest	1.3	0.3433	0.2	0.16	11.91**
9. No. of labourers required for harvest	0.97	0.3258	0.53	0.2489	4.46**
10. No. of labourers required for threshing, winnowing and processing of straw	0.43	0.2818	0.53	0.2489	1.05ns
11. Quantity of grains to be stored for seed	0.25	0.1875	0.05	0.0475	3.17**

** - significant at 1% level ns - not significant

PROFORMA-5

FINAL REPORTS ON RESEARCH PROJECT/EXPERIMENTS

1. Name of Faculty : Agriculture

2. Name of Research Centre : Department of Agricultural Extension, College of Agriculture, Vellayani

3. Project : Role of Agricultural labourers in decision making in paddy production by farmers in Thiruvananthapuram district.

4. Sub-project : ..

5. Experiment Code No. and title : TOT
Role of Agricultural labourers in decision making in paddy production by farmers in Thiruvananthapuram District.

6. Objectives:

The following were the specific objectives of the study:

1. To identify the areas of decision making by agricultural labourers with the farmers employing them in paddy production
2. To identify the role perception and role performance of male and female agricultural labourers in decision making
3. To study the role of male and female agricultural labourers in decision-making as perceived by the farmers employing them
4. To analyse the characteristics of male and female agricultural labourers in relation to their role perception and role performance

7. Name and designation of Principal Investigator : JIJU P.ALEX (91-11-55)

Associates:

1. Dr.V.B.Padmanabhan
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2. Dr.G.T.Nair,
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(....2)

3. Dr.S.Bhaskaran,
   Associate Professor,
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   College of Agriculture,Vellayani

4. Dr(Mrs)P.Saraswathy,
   Professor and Head,
   Department of Agrl.Statistics,
   College of Agriculture,
   Vellayani.

8. Date of start :

9. Date of completion :

10. Technical programme:

The study was conducted in Thiruvananthapuram District of Kerala State. A stratified two stage random sampling procedure was followed for the selection of respondents for the study. Three categories of respondents namely, 60 farmers constituted by 10 each from the two randomnly selected Krishi-Bhavans from each of the three sub divisions in Thiruvananthapuram district (Attingal, Neyyattinkara and Nedumangadu). 69 male agricultural labourers and 60 female agricultural labourers selected at the rate of one each from the list of agricultural labourers employed by the farmers constituted the sample.

The main items of observations made were:

1. Identification of the areas of decision-making in paddy production
2. Role perception and role performance of male and female agricultural labourers in decision-making with the farmer
3. The personal, social, psychological and economic characteristics of agricultural labourers in relation to their role perception and role performance

11. Deviations made if any with justification : Nil

12. Results obtained:

Role performance of majority of female agricultural labourers was higher in deciding various aspects of transplanting, weeding and harvesting. Role perception

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and role performance of agricultural labourers were found to be significantly correlated to each other. Significant difference was observed among male and female agricultural labourers with regard to overall role perception and role performance.

Majority of farmers perceived the role of male agricultural labourers, 'as important' in deciding the number of labourers required for transplanting, type of manures and fertilizers to be used in basal application, irrigation of crop in the mainfield, time of weeding, number of labourers required for weeding operations, time of application of plant protection chemicals and quantity of plant protection chemicals. Role of female agricultural labourers in deciding various aspects of transplanting, weeding and harvesting was ascribed significant importance by the employer farmers.

Significant positive correlation was observed for three characteristics of both male and female agricultural labourers, namely, attitude towards job, attitude towards scientific agricultural practices and knowledge of scientific agricultural practices with their role perception as well as role performance.

Thirty one areas of decision-making in paddy production were identified in which agricultural labourers had their role with the employer farmers. The study indicated that the role perception and role performance of agricultural labourers, though not excellent was generally good in activities they involve most frequently. A vast majority of male labourers were found to have considerably higher role perception in decision-making with the farmers in agricultural practices such as variety to be selected, type of manures and fertilizers to be used in basal application, type of fertilizers required for top dressing and irrigation of crop in the mainfield. Remarkably higher fractions of female labourers were observed to have significant role perception in decision-making areas namely, spacing to be

(....4)

adopted for transplanting, time of weeding and harvesting number of labourers required for transplanting, weeding, harvesting, threshing, winnowing and processing of straw.

Significant positive correlation was observed for eight characteristics of male agricultural labourers, namely, farming experience, period of employment under the farmer, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer farmer, knowledge of scientific agricultural practices, feeling of responsibility in increasing the agricultural production and achievement motivation, with their role perception as well as role performance in decision-making with the farmer.

Significant positive correlation was observed for four characteristics of female agricultural labourers namely, attitude towards job, attitude towards scientific agricultural practices, knowledge of scientific agricultural practices and contact with extension agency with their role perception and role performance in decision-making with the farmer. Three characteristics namely, period of employment under the farmer, attitude towards employer farmer and achievement motivation were found to have significant positive correlation with role performance alone.

13. Summary and Conclusion:

Agricultural labour constitutes a major fraction of the total work force or available in our country. Until recently, the input of labour in production function was measured in quantity and quality was neglected. It has now been realised that improvement of the quality of labour in inevitable for better production and productivity. Attempts are being made the world over to develop new motivational techniques to improve the labour quality and workers' participation in decision-making has been identified as a powerful motivational technique towards this objective in the industrial

(....5)

sector. Though the circumstances differ in Agricultural sector, this work is an attempt to study the role of agricultural labourers in decision-making with the farmer. Results of the study emphasises the need for conducting still more comprehensive explorations regarding the role of agricultural labourers in decision-making which would help farmers develop meaningful human resource management techniques. Results of the study also focus on the importance of imparting training to the agricultural labourers on modern scientific agricultural practices for better performance. The inferences of the study also call for the formulation of new motivational techniques to utilise the labour force effectively for augmenting productivity.

14. Future a line of work:

The study was confined to only one district. For generalising the findings, similar studies should be conducted in other districts as well, still more exhaustive studies, including other socio-economic and psychological characteristics and experimental studies to reveal the impact of training on role perception could also be conducted.

15. Publications : N i l

16. Details of field books and basic records : All the papers connected with research have been deposited in the Department of Agricultural Extension, College of Agriculture, Vellayani

17. Signature of

Principal Investigator

Place:

Head of Department/Station

Date :

With regard to role performance (as per Table 4.7), significant difference was observed between male and female agricultural labourers in all the selected decision making areas except, number of labourers required for threshing, winnowing and processing of straw.

Significant difference was observed to exist between male and female agricultural labourers in their role performance with respect to decisions on number of labourers required for land preparation ($t=16.20^{**}$), interval of irrigation required in nursery ($t=15.94^{**}$), spacing to be adopted for transplanting ($t=14.10^{**}$), irrigation of crop in the main field ($t=12.27^{**}$) and time of harvest ($t=11.91^{**}$).

4.6. Role of agricultural labourers in decision making as perceived by farmers

Table 4.8 furnishes the distribution of farmers based on their perception regarding the role of agricultural labourers in decision making.

4.6.1. Role of male agricultural labourers in decision making as perceived by farmers

A perusal of the table indicates that no farmer had considered the role of male agricultural labourers in deciding the use of mechanical means of ploughing instead of draught animals, spacing to be adopted for transplanting,

Table 4.8. Role of male and female agriculture labourers in decision making as perceived by farmers

	Areas of Decision making	Male Agricultural labourers			Female aguricultural Labourers		
		Very Important ferquency(%)	Important frequency(%)	Not important frequency(%)	Very Important frequency(%)	Important frequency(%)	Not Important frequency(%)
1	Variety to be selected	4 (6.67)	32 (53.33)	24 (40)	0 (0)	0 (0)	60 (100)
2	Seed rate to be used	8 (13.33)	33 (55)	19 (31.67)	0 (0)	0 (0)	60 (100)
3	Whether the seeds are to be treated or not	1 (1.67)	12 (20)	47 (78.33)	0 (0)	0 (0)	60 (100)
4	Type of seed treatment to be done	1 (1.67)	12 (20)	47 (78.33)	0 (0)	0 (0)	60 (100)
5	Chemicals to be used in seed treatment	1 (1.67)	6 (10)	53 (88.33)	0 (0)	0 (0)	60 (100)
6	Quantity of chemicals to be used	1 (1.67)	6 (10)	53 (88.33)	0 (0)	0 (0)	60 (100)
7	Time of pulling out seedlings	4 (6.67)	18 (30)	38 (63.33)	0 (0)	0 (0)	60 (100)
8	Interval of irrigation required in nursery	20 (33.33)	40 (66.67)	0 (0)	0 (0)	0 (0)	60 (100)
9	Number of ploughings required	28 (46.67)	29 (48.33)	3 (5)	0 (0)	0 (0)	60 (100)
10	Whether the ploughing is to be done mechanically or by using draught animals	0 (0)	1 (1.67)	59 (98.33)	0 (0)	0 (0)	60 (100)
11	Number of labourers required for land prepration	25 (41.67)	33 (55)	2 (3.33)	0 (0)	0 (0)	60 (100)
12	Spacing to be adopted for transplanting	0 (0)	14 (23.33)	46 (76.67)	16 (26.67)	44 (73.33)	0 (0)
13	Number of labourers required for transplanting	10 (16.67)	45 (75)	5 (8.33)	2 (3.33)	50 (83.33)	8 (13.33)
14	Type of manures and fertilizers to be used in basal application	1 (1.67)	43 (71.67)	16 (26.67)	0 (0)	0 (0)	60 (100)
15	Type of fertilizers required for top dressing	6 (10)	42 (70)	12 (20)	0 (0)	0 (0)	60 (100)

Cont....

Table 4.8. (Cont....)

	Areas of Decision making	Male Agricultural labourers: Very Important ferquency(%)	Important frequency(%)	Not important frequency(%)	Female aguricturel Labourers: Very Important frequency(%)	Important frequency(%)	Not Important frequency(%)
16	Quantity of fertilizers to be used for top dressing	1 (1.67)	37 (61.67)	22 (36.67)	0 (0)	0 (0)	60 (100)
17	Place from where the fertilizers are to be purchased	1 (1.67)	9 (15)	50 (83.33)	0 (0)	0 (0)	60 (100)
18	Irrigration of crop in the main field	9 (15)	48 (80)	3 (5)	0 (0)	0 (0)	60 (100)
19	Time of weeding	13 (21.67)	43 (72.67)	4 (6.67)	5 (8.33)	48 (80.00)	7 (11.67)
20	Number of labourers required for weeding operations	10 (16.67)	43 (71.67)	7 (11.67)	0 (0)	0 (0)	60 (100)
21	Type of weedicides to be used	0 (0)	9 (15)	51 (85)	0 (0)	0 (0)	60 (100)
22	Quantity of weedicides to be used	0 (0)	6 (10)	54 (90)	0 (0)	0 (0)	60 (100)
23	Type of plant protection chemicals (pesticides and fungicides) to be used	1 (1.67)	29 (48.33)	30 (50)	0 (0)	0 (0)	60 (100)
24	Labour requirement for the application of plant protection chemicals	0 (0)	38 (63.33)	22 (36.67)	0 (0)	0 (0)	60 (100)
25	Time of application of plant protection chemicals	2 (3.33)	50 (83.33)	8 (13.33)	0 (0)	0 (0)	60 (100)
26	Quantity of PP chemicals to be used	3 (5)	47 (78.33)	10 (16.67)	0 (0)	0 (0)	60 (100)
27	Time of harvest	30 (50)	30 (50)	0 (0)	2 (3.33)	41 (68.33)	17 (28.33)
28	Number of laboures required for harvesting	15 (25)	37 (61.67)	8 (13.33)	1 (1.67)	47 (78.33)	12 (20)
29	Number of labourers required for threshing winnowing and processing of straw	0 (0)	29 (48.33)	31 (51.67)	0 (0)	48 (80)	12 (20)
30	Quantity of grains to be stored for seed	0 (0)	17 (28.33)	43 (71.67)	0 (0)	0 (0)	60 (100)
31	Method of marketing the produce	0 (0)	4 (6.67)	56 (93.33)	0 (0)	0 (0)	60 (100)

type and quantity of weedicides to be used, labour requirement for the application of plant protection chemicals, number of labourers required for threshing, winnowing and processing of straw, quantity of grains to be stored for seed and method of marketing the produce as 'very important'. However, smaller fractions of the respondent farmers viewed the role of their male employees as 'important' in many of the decision making areas cited above, namely, use of mechanical means of ploughing instead of draught animals, (1.67%), method of marketing the produce (6.67%), quantity of weedicides to be used (10%), type of weedicides to be used (15%), spacing to be adopted for transplanting (23.33%), quantity of grains to be stored for seed (28.33%), number of labourers required for threshing, winnowing and processing of straw (48.33%) and number of labourers required for the application of plant protection chemicals (63.33%).

A negligible fraction (1.67%) of the farmers perceived the role of male agricultural labourers as 'very important' in deciding the various aspects of seed treatment, type of manures and fertilizers to be used in basal application, quantity of fertilizers to be used for top dressing, place from where fertilizers are to be purchased and type of pesticides and fungicides to be used for plant protection.

With regard to the various aspects of seed treatment, twenty per cent of the farmers viewed the role of their male employees as 'important' in deciding the necessity of seed treatment and type of seed treatment to be done. Majority of the respondents (78.33%) did not attach any importance to this role.

A section (10 per cent) of the farmers viewed their male labourers' role to be 'important' in deciding the type and quantity of chemicals to be used in seed treatment, whereas, 88.33 per cent perceived their role to be of no importance at all in these decision making areas.

Role of male agricultural labourers in deciding the type of manures and fertilizers required in basal application, quantity of fertilizers to be used for top dressing and type of pesticides and fungicides to be used was perceived to be 'important' by 71.67 per cent, 61.67 per cent, and 48.33 per cent of the respondents respectively.

Notably larger fractions of the employer farmers construed the role of their male employees in taking the following decisions as 'very important'.

Interval of irrigation required in nursery (33.33%), Number of labourers required for land preparation

(41.67%), Number of ploughings required (46.67%) and time of harvesting (50%). Role of labourers in the above areas of decision making was viewed to be 'important' by 66.67 per cent, 55 per cent, 48.33 per cent and 50 per cent of the respondents respectively.

A noticeable fraction (16.67%) of the farmers opined that the role of male agricultural labourers in deciding the number of labourers required for transplanting and weeding operations as 'very important'. Meanwhile, they were perceived to be 'important', by 75 per cent and 71.67 per cent of the respondents respectively.

Role of labourers in deciding the time of weeding was construed to be 'very important' by 21.67 per cent and 'important' by 71.67 per cent of the farmers chosen for the study. Rest of them did not ascribe any importance to this role.

A section (25 per cent) of the respondents perceived the role of male agricultural labourers in deciding the number of labourers required for harvesting as 'very important' and 61.67 per cent as 'important'.

Role of male agricultural labourers in deciding the variety and time of pulling out seedlings was perceived to be 'very important' by 6.67 per cent of the employer farmers.

Only a meagre fraction of the respondents had perceived the role of male agricultural labourers in the following decision making areas as 'very important'. (percentage given in bracket).

Time of application of plant protection chemicals (3.33%), quantity of plant protection chemicals required (5%), type of fertilizers required for top dressing (10%), seed rate to be used (13.33%) and irrigation of crop in the mainfield (15%).

Role in the above areas were viewed to be 'important' by 83.33 per cent, 78.33 per cent, 7. per cent, 55 per cent and 80 per cent of the employer farmer respectively.

Rest of the farmers did not impute any importance to these roles.

4.6.2. Role of female agricultural labourers in decision making as perceived by the farmers

Quite noticeably, role of female agricultural labourers in 25 out the total 31 areas of decision making areas was perceived to be of 'no importance' by all the

employer farmers chosen for the study. Out of the six decision making areas to which any importance was attached, role in deciding the spacing to be adopted for transplanting was perceived to be 'very important' by a considerably bigger section of the farmers (26.67%). A major fraction (73.33 per cent) of respondents construed this role as 'important'. Only meagre sections of the respondents had viewed the remaining decision making areas as 'very important', with respect to the role of female employees.

Role in deciding the number of labourers required for harvesting was perceived to be 'very important' by a negligible fraction of 1.67 per cent and 'important' by 78.33 per cent of the respondent farmers. Only 3.33 per cent of the respondents had considered the role in deciding the number of labourers required for transplanting and time of harvest as 'very important'. Role in these areas were viewed to be 'important' by 83.33 per cent and 68.33 per cent of respondent farmers respectively. Involvement of female labourers while taking decision on the time of weeding was perceived to be very important by 8.33 per cent and important by 80 per cent of the employer farmers. The remaining fraction of respondents did not attach any importance to these roles.

4.7. Relationship between selected characteristics of agricultural labourers and their role perception

The results of correlation analysis showing the simultaneous relationship of selected characteristics of agricultural labourers with their role perception are shown in Table 4.9.

4.7.1. Role perception Vs. selected characteristics (males)

Significant positive correlation was observed for eight characteristics, namely, farming experience, period of employment under the farmer, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer farmer, knowledge of scientific agricultural practices, feeling of responsibility in increasing the agricultural production and achievement motivation, with the role perception of male agricultural labourers in decision making with the farmers.

Period of employment under a farmer had the highest 'r' value (0.7337) followed by achievement motivation (0.5507) and attitude towards job (0.5404).

Table 4.9. Correlation between selected characteristics of agricultural labourers and role perception

Variable	Description	'r' values	
		male	female
X_1	Educational status	0.0374	0.0316
X_2	Size of holding	-0.2011	0.0300
X_3	Farming experience	0.4811**	0.1199
X_4	Period of employment under the farmer	0.7337**	0.1832
X_5	Attitude towards job	0.5404**	0.3021*
X_6	Attitude towards scientific agricultural practices	0.5387**	0.6145**
X_7	Attitude towards employer farmer	0.5229**	0.2163
X_8	Knowledge of scientific agricultural practices	0.5387**	0.6145**
X_9	Feeling of responsibility in increasing the agricultural production	0.2721*	0.1481
X_{10}	Social participation	-0.1092	0.0687
X_{11}	Contact with extension agency	0.1916	0.2916*
X_{12}	Achievement motivation	0.5507**	0.2288

* - significant at 0.05 level

** - significant at 0.01 level

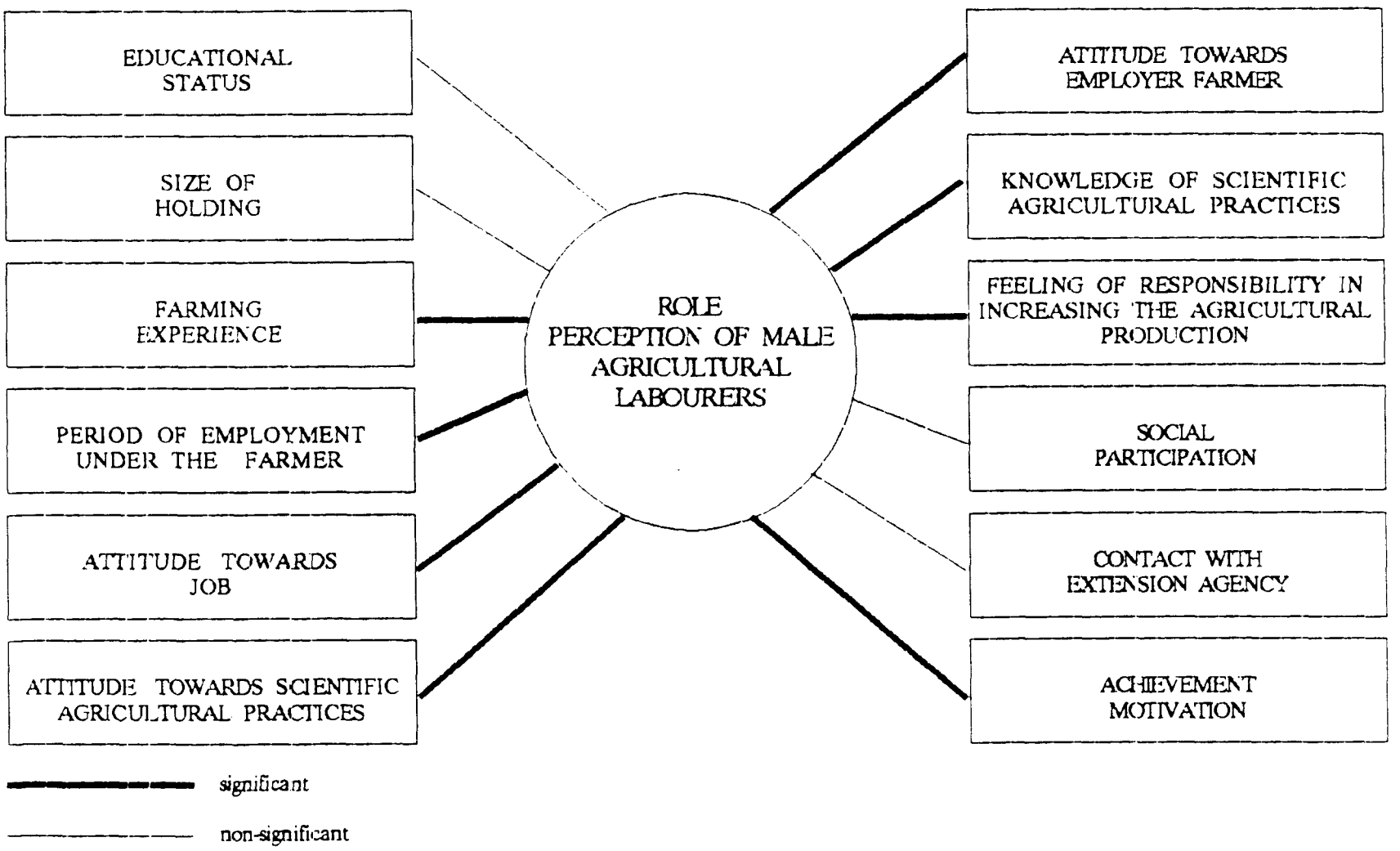

Fig. 3. Correlation of the selected characteristics of male agricultural labourers with their role perception

Attitude towards scientific agricultural practices and knowledge of scientific agricultural practices had the same magnitude of correlation (0.5387). These characteristics were followed by attitude towards employer (0.5229) and farming experience (0.4811). Feeling of responsibility in increasing the agricultural production had the lowest 'r' value (0.2721).

Four characteristics, namely educational status, size of holding, social participation and contact with extension agency were found to have no association with role perception of male agricultural labourers.

The observed correlation of the selected characteristics of male agricultural labourers with their role perception is presented in Fig. 3.

4.7.2. Role perception Vs selected characteristics (females)

An examination of the table 4.9 reveals that four selected characteristics namely attitude towards job, attitude towards scientific agricultural practices, knowledge of scientific agricultural practices and contact with extension agency had significant positive relationship with the role perception of female agricultural labourers.

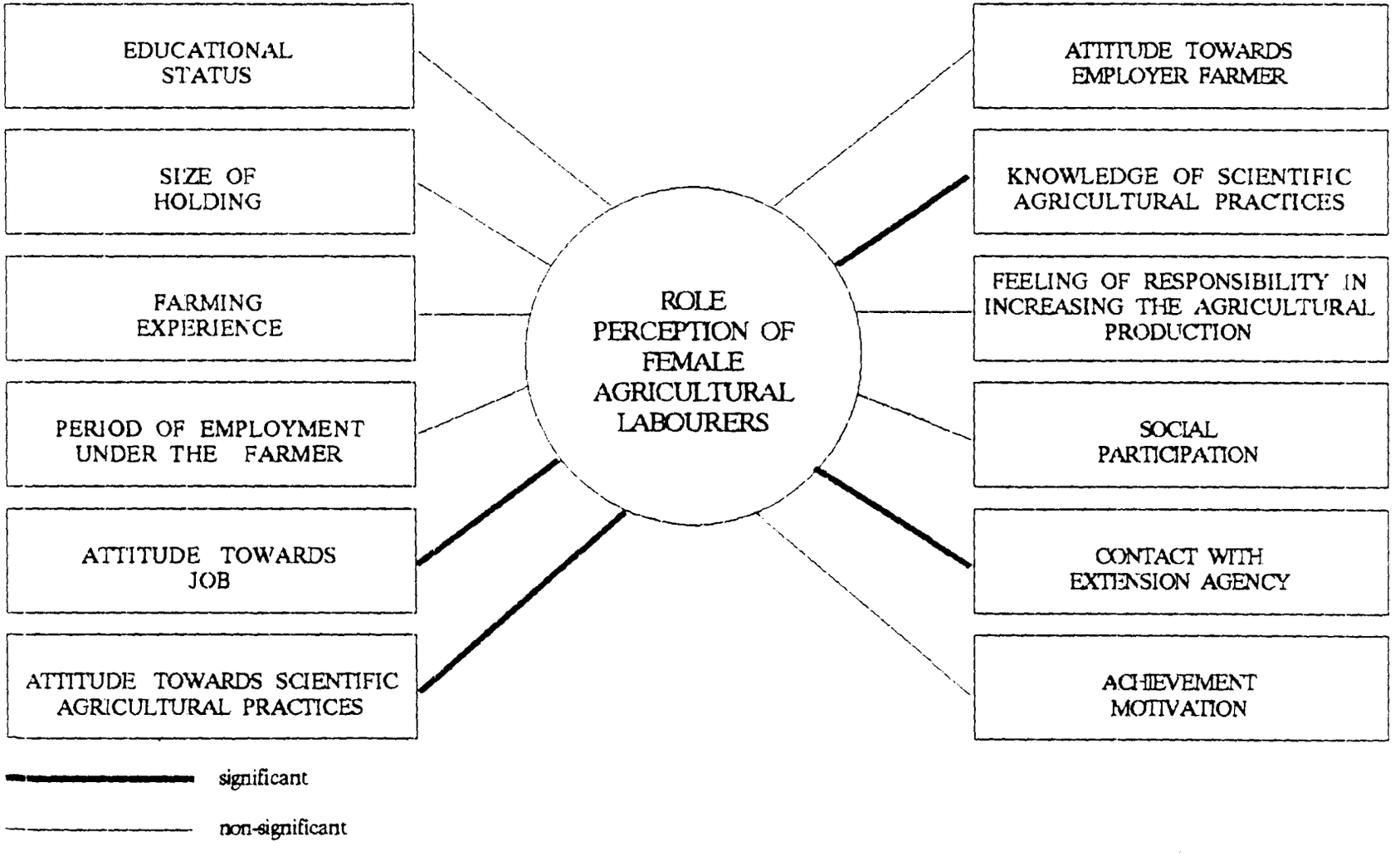

Fig. 4. Correlation of the selected characteristics of female agricultural labourers with their role perception

Attitude towards scientific agricultural practices and knowledge of scientific agricultural practices had the highest 'r' value (0.6145) followed by attitude towards job (0.3021) and contact with extension agency (0.2916).

The characteristics namely, educational status, size of holding, farming experience, period of employment under the farmer, attitude towards employer farmer, feeling of responsibility in increasing the agricultural production, social participation and achievement motivation were found to have no relationship with role perception of female agricultural labourers.

The observed correlations of the selected characteristics of female agricultural labourers with their role perception are presented in Fig. 4.

4.8. Relationship between selected characteristics of agricultural labourers and their role performance

The results of correlation analysis showing the relationship of selected characteristics of agricultural labourers with their role performance are shown in Table 4.10.

4.8.1. Role performance Vs selected characteristics (males)

The selected characteristics of male agricultural labourers namely farming experience, period of employment, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer, knowledge of scientific agricultural practices, feeling of

responsibility in increasing agricultural production and achievement motivation were found to have significant positive cor-relation with their role performance (Table 4.10).

Table 4.10. Correlation between selected characteristics of agricultural labourers and role performance

Variable	Description	'r' values	
		male	female
X_1	Educational status	-0.0200	0.0005
X_2	Size of holding	-0.1211	0.0841
X_3	Farming experience	0.4800**	0.1800
X_4	Period of employment under the farmer	0.7628**	0.2718*
X_5	Attitude towards job	0.5650**	0.3618**
X_6	Attitude towards scientific agricultural practices	0.5312**	0.6224**
X_7	Attitude towards employer farmer	0.5192**	0.2639*
X_8	Knowledge of scientific agricultural practices	0.5871**	0.6787**
X_9	Feeling of responsibility in increasing the agricultural production	0.2743*	0.2397
X_{10}	Social participation	0.1221	0.0409
X_{11}	Contact with extension agency	0.2283	0.2963*
X_{12}	Achievement motivation	0.5624**	0.2504*

* Significant at 0.05 level ** Significant at 0.01 level

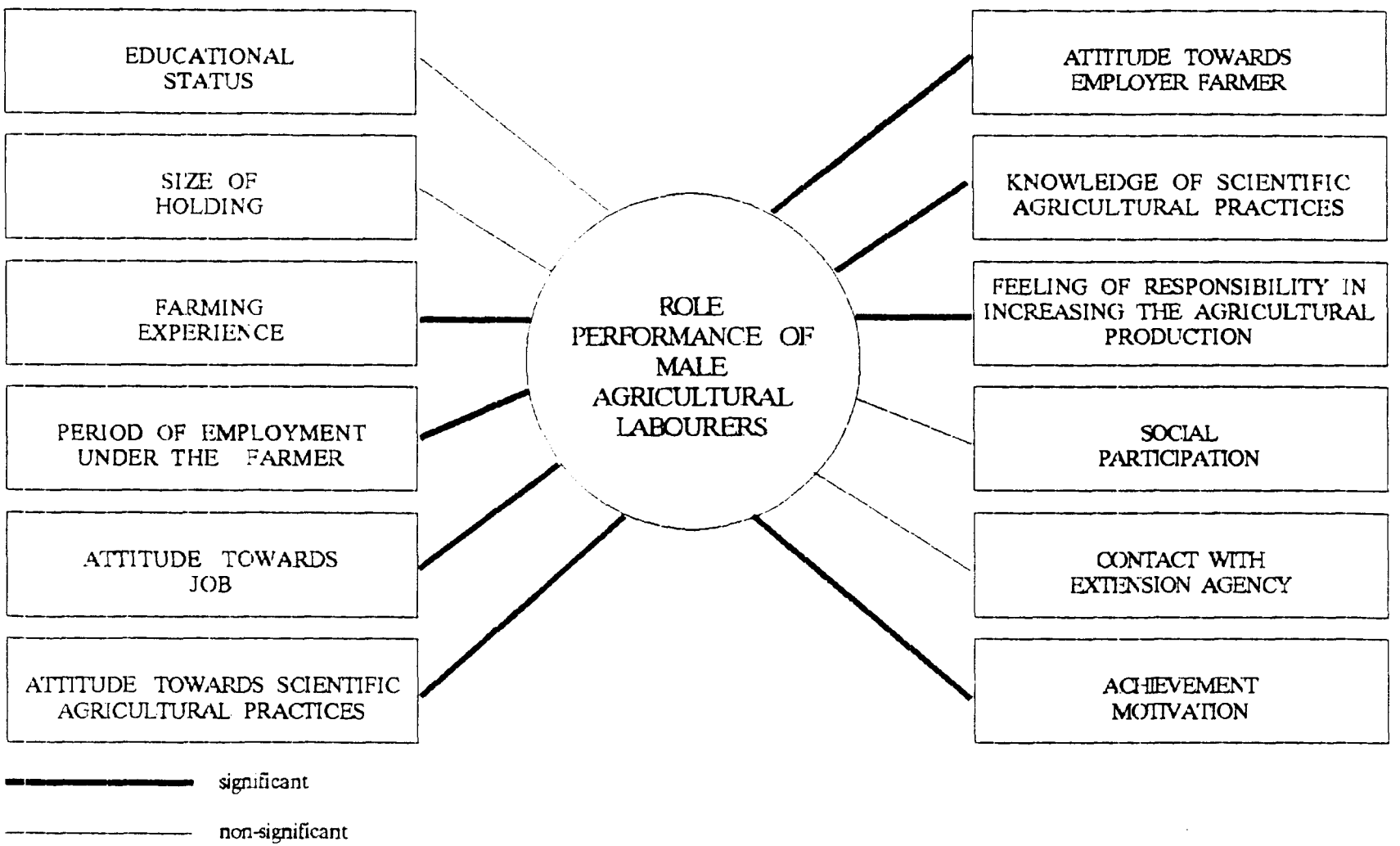

Fig. 5. Correlation of the selected characteristics of male agricultural labourers with their role performance

Among the eight characteristics which were found to have significant positive relationship with role performance, period of employment under farmer had maximum correlation (0.7628). It was followed by knowledge of scientific agricultural practices (0.5871), attitude towards job (0.5650), achievement motivation (0.5624), attitude towards agricultural practices (0.5312), attitude towards employer (0.5192), farming experience (0.4800) and feeling of responsibility in increasing the agricultural production. (0.2743).

Characteristics like educational status, size of holding, social participation and contact with extension agency were found to have no significant relationship with role performance of male agricultural labourers. Schematic representation of the results are given in Fig. 5.

4.8.2. Role performance Vs selected characteristics (females)

Table 4.10. shows that out of the twelve characteristics selected for the study, seven characteristics namely period of employment, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer, knowledge of scientific agricultural practices, contact with extension agency and achievement motivation had

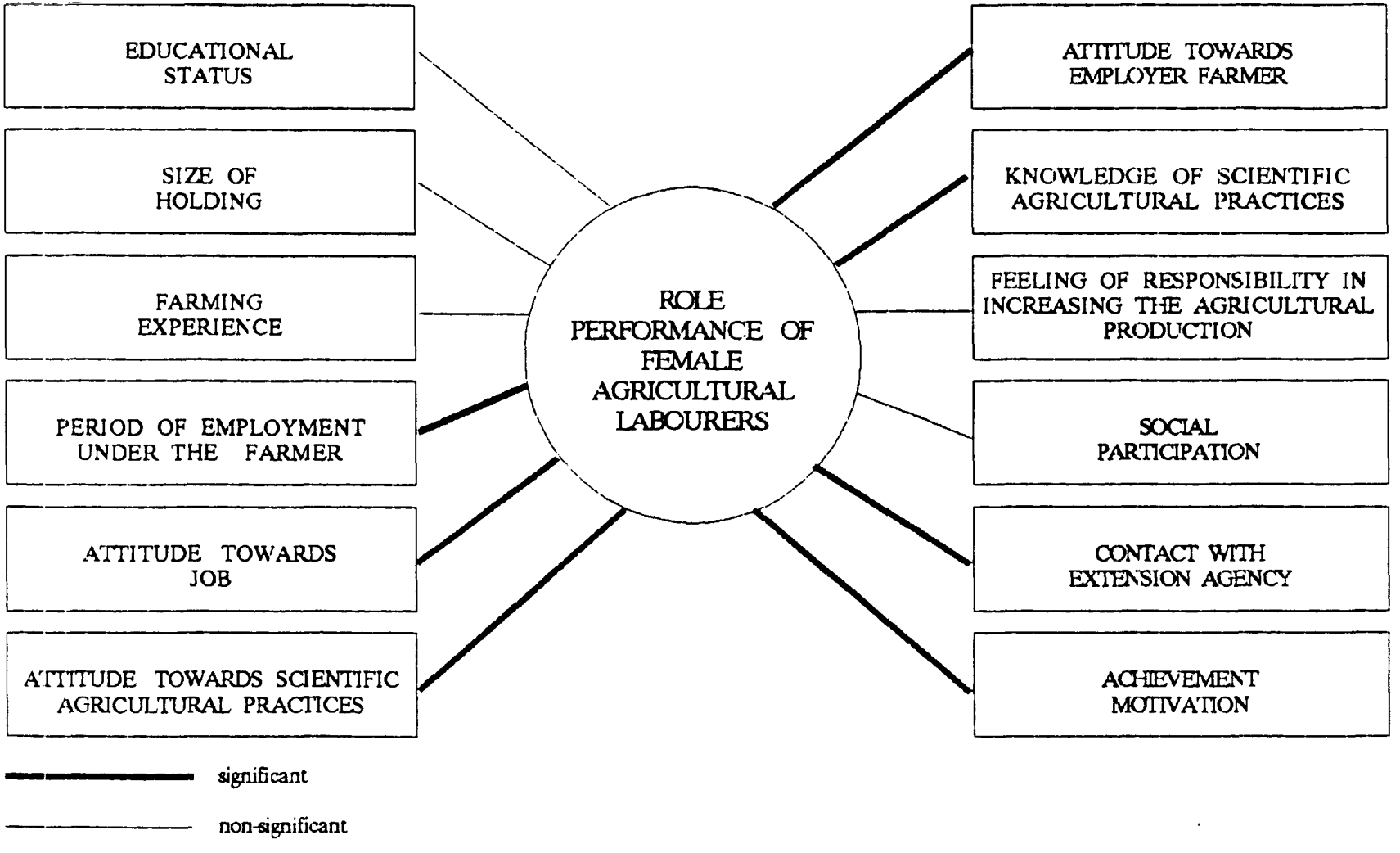

Fig. 6. Correlation of the selected characteristics of female agricultural labourers with their role performance

significant positive relationship with their role performance.

Among these, knowledge of scientific agricultural practices had maximum 'r' value [0.6787]. It was followed by attitude towards scientific agricultural practices [0.6244]. attitude towards job [0.3618], contact with extension agency [0.2963], period of employment [0.2718], attitude towards employer [0.2639] and achievement motivation [0.2504].

Five characteristics namely, educational status, size of holding, farming experience, feeling of responsibility in increasing the agricultural production and social participation were found to have no significant relationship with the role performance.

These results have been schematically represented in Fig. 6.

4.9. Step-wise regression analysis

Step-wise regression analysis facilitated the identification of the best sub group of variables among many for predicting the variations in the role perception and role performance of male and female agricultural labourers and the determination of the relative contribution of these set of variables in explaining the variation in the dependent variable.

The results are furnished in Table 4.11, 4.12, 4.13 and 4.14.

Table 4.11 Step-wise regression analysis of role perception (male agricultural laboures)

Steps	Variables entering	F	% Variation	Increase in variation
1	x_4	67.6	53.84	53.84
2	x_4, x_8	53.6	65.28	11.44
3	x_4, x_8, x_3	49.7	72.71	7.43
4	x_4, x_8, x_3, x_1	39.1	74.30	1.59

Predicted regression equation

$$Y = -9.2035 + 0.6412\ x_1 + 0.2543\ x_3 + 1.3574\ x_8 + 0.5717\ x_4$$

Where

x_4 - period of employment

x_8 - knowledge of scientific agricultural practices

x_3 - farming experience

x_1 - educational status.

It could be observed that as much as 53.84 per cent variation in the role perception of male agricultural labourers was explained by a single variable X_4 [period of employment], out of a total 74.3 per cent variation occured

on account of the four variables together. The remaining three variables accounted for 20.46 per cent variation in the dependent variable, out of which X_8 [knowledge of scientific agricultural practices] has explained 11.44 per cent and X_3 [farming experience] has rendered 7.43 per cent variation.

Table 4.12. Step-wise regression analysis of role perception (female agricultural labourers)

Steps	Variables entering	F	% variation	Increase in % variation
1	X8	35.2	37.76	37.76
2	X8, X5	21.6	43.17	5.41

predicted regression equation:

$Y = -1.4624 + 0.0990\ X_5 + 0.6215\ X_8$

where,

X_8 - Knowledge of Scientific agricultural practices.

X_5 - attitude towards job

It is evident from the table that variables X_8 (Knowledge of scientific agricultural practices) and X_5 (attitude towards job) together have explained 43.17 per cent of the variation in the role perception of female agricultural labourers.

Table 4.13. Step-wise regression analysis of role performance (male agricultural labourers

Steps	Variables entering	F	% variation	Increase in % variation
1	X8	49.53	46.06	46.06
2	X8,5	33.72	54.2	8.14
3	X8,X5,X2	24.75	57.01	3.81
4	X8,X5,X2,X3	21.2	60.65	3.64
5	X8,X5,X2,X3 and X10	17.78	62.22	2.57

Predicted regression equation

$Y = -6.2119 + -0.2494\ X10 + 0.0480\ X3 + 0.0471X2 + 0.0935\ X5 + 0.7528\ X8$

where,

X_8 - Knowledge of scientific agricultural practices

X_5 - attitude towards job

X_2 - Size of holding

X_3 - farming experience

X_{10} - Social participation

It is understood that variation in the role performance of male agricultural labourers explained by X_8 (knowledge of Scientific agricultural practices), X_5 (Farming experience) and X_{10} (Social participation) amounted to be

62.22 per cent, of which 46.06 per cent of the variation was explained by X_8 (Knowledge of agricultural practices) alone. The remaining four variables accounted for only 18.16 per cent of the total variation.

Table 4.14. Step-wise regression analysis of role performance (Female agricultural labourers).

Steps	Varieties entering	F	% variation	Increase in % variation
1	X_4	80.7	58.20	58.2
2	X_4, X_8	75.6	72.63	14.43
3	X_4, X_8, X_3	71.3	79.25	6.52

Predicted regression equation:

$$Y = -18.9997 + .2483X_3 + 1.9575X_8 + .6256X_4$$

Where,

X_4 - Period of employment

X_8 - Knowledge of Scientific agricultural practices

X_3 - Farming experience.

In the case of role performance of female agricultural labourers, out of the 79.25 per cent of the total variation, 58.2 per cent was explained by X_4 (period of employment) alone. X_8 (Knowledge of scientific agricultural practices) and X_3 (Farming experience) accounted for about 21 per cent of the variation.

4.10. Path analysis

Path analysis was applied to know the direct and indirect effects of the various casual factors (x_i) on the role perception and role performance of male and female agricultural labourers. It was not done in the case of female agricultural laboures because a very few variables were found to have significant influence on their role perception and role performance (as evident from Tables 4.11 and 4.13).

4.10.1. Direct and indirect effect of independent variables on role perception of male agricultural labourers

The results of path analysis are presented in Table 4.15.

Table 4.15. Direct and indirect effects of independent variables on role perception of male agricultural labourers

	X_1	X_3	X_8	X_4	Correlation coefficient
X_1	<u>0.1288</u>	-0.0427	0.0451	-0.0972	0.0374
X_3	-0.0181	<u>0.3037</u>	0.0610	0.1346	0.4811**
X_8	0.0215	0.0685	<u>0.2705</u>	0.1783	0.5387**
X_4	-0.0206	0.0672	0.0793	<u>0.6077</u>	0.7337**

Residue = 0.5079 ** - Significant at 1% level

Where,

X_1 - Educational status

X_3 - Farming experience

X_8 - Knowledge of Scientific agricultural practices

X_4 - Period of employment

It is evident that X_4 (period of employment) had maximum direct effect (0.6077) on role perception of male agricultural labourers. The high correlation between this variable and role perception was supported by this direct effect.

The correlation between X_1 (educational status) and role perception was very low, but it's direct effect was higher than this (0.1288). The negative indirect effect, especially via X_4 (period of employment) resulted in such a low correlation.

The observed correlation of role perception and X_3 (farming experience) might be attributed to the direct effect of x_3 and positive direct effects via X_8 (knowledge of scientific agricultural practices) and X_4 (period of employment).

The residual effect (0.5079) indicated that the path coefficient model has been helpful in explaining about

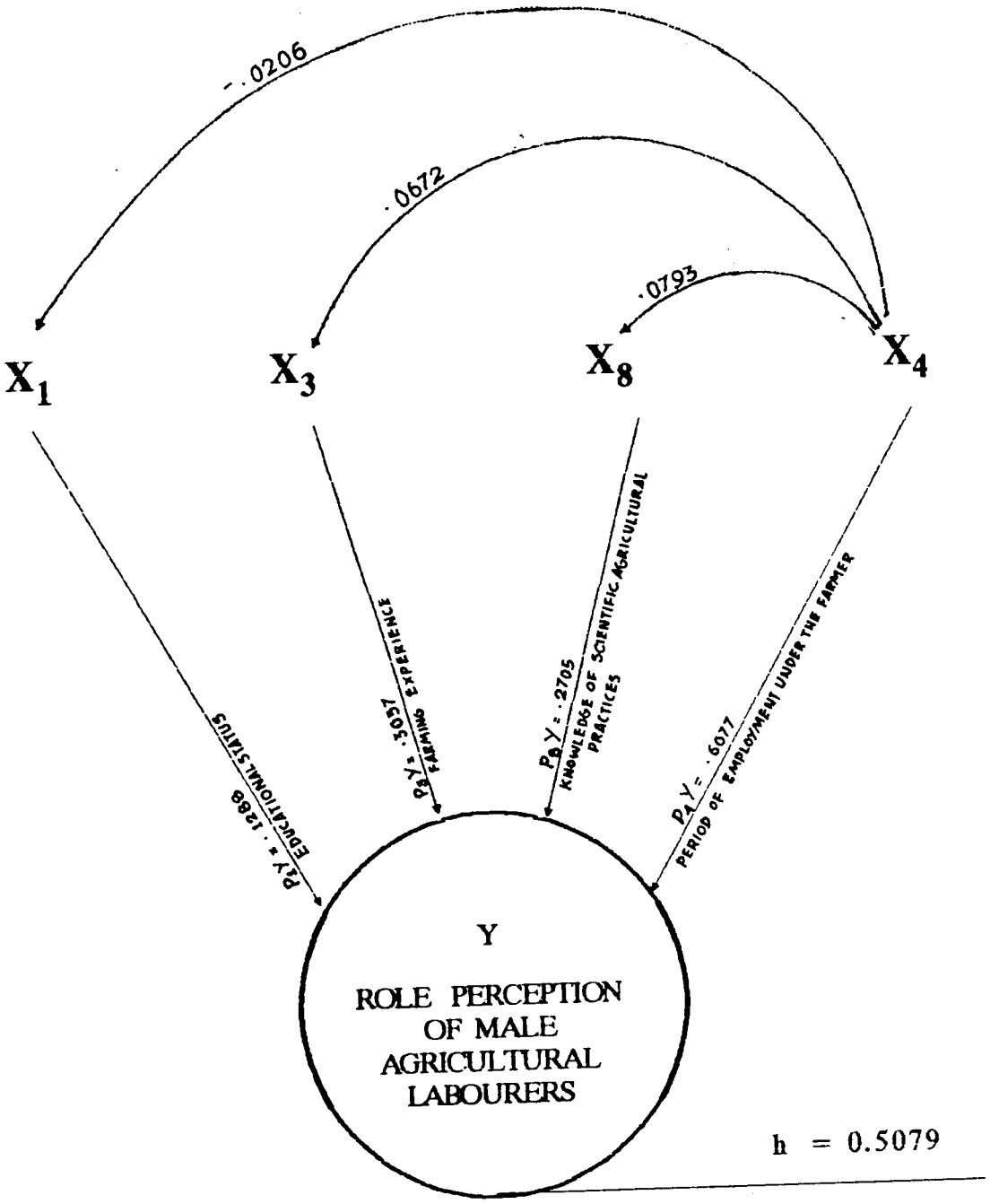

Fig. 7. Path diagram of the four independent variables and role perception of male agricultural labourers

49 per cent of the variation in role perception satisfactorily.

The path diagram of independent variables and role perception of male agricultural labourers is given in Fig. 7.

4.10.2. Direct and indirect effect of independent variables on role performance of male agricultural labourers

The results of path analysis are furnished in Table 4.16.

Table 4.16. Direct and indirect effects of independent variables on role performance of male agricultural labourers

	X_{10}	X_3	X_2	X_5	X_8	Correlation coefficient
X_{10}	<u>-0.1583</u>	0.0013	-0.0141	-0.0097	0.0587	0.1221
X_3	-0.0008	<u>0.2415</u>	0.0068	0.1266	0.1059	0.4800**
X_2	-0.0413	-0.0305	<u>-0.0540</u>	-0.0370	0.0417	-0.1211
X_5	0.0071	0.1416	0.0092	<u>0.2160</u>	0.1910	0.5650**
X_8	-0.0198	0.0545	-0.0048	0.0879	<u>0.4693</u>	0.5871**

Residue = 0.6787 ** - Significant at 1% level

where,

X_{10} - Social participation

X_3 - farming experience

X_2 - Size of holding

X_5 - attitude towards job

X_8 - Knowledge of scientific agricultural practices

Path analysis furnished in Table 4.16 revealed the following results.

X_8 (knowledge of scientific agricultural practices) has maximum direct effect on role performance, and the high correlation may be attributed to this factor with role performance along with the positive indirect effects through X_3 (farming experience) and X_5 (attitude towards job). The negative indirect effect through X_{10} (social participation) and X_2 (size of holding) are negligible.

The high correlation value between X_5 (attitude towards job) and role performance, may be due to the positive direct effect and the positive indirect effects through X_{10} (social participation), X_3 (farming experience), X_2 (size of holding) and X_8 (knowledge of scientific agricultural practices).

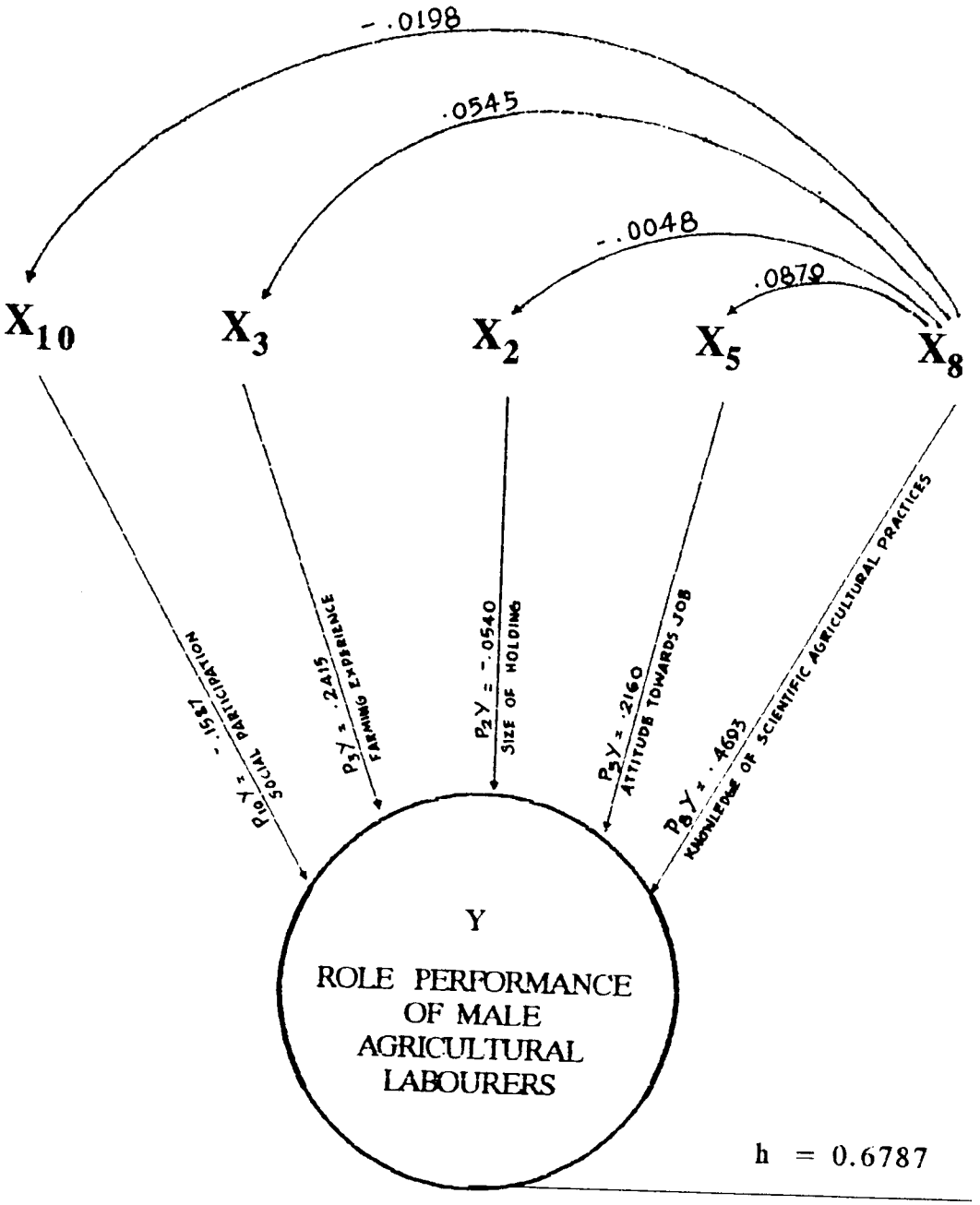

Fig. 8. Path diagram of the five independent variables and role performance of male agricultural labourers

Negative correlation between X_2 (size of holding) and role performance might be attributed to the negative direct effect and negative indirect effects through X_{10} (social participation), X_3 (farming experience) and X_5 (attitude towards job).

The positive indirect effect through X_8 (knowledge of scientific agricultural practices) is rather negligible.

Significant and high correlation found to exist between X_3 (farming experience) might be due to the positive direct effect and positive indirect effects through X_2 (size of holding), X_5 (attitude towards job) and X_8 (knowledge of scientific agricultural practices). The negative indirect effect through X_{10} (social participation) is a rather small one.

The positive, but non significant correlation found to exist between X_{10} (social participation) and role performance might be due to the negative direct effect and the positive indirect effects through X_2 (size of holding) and X_5 (attitude towards job), which are negligible.

The path analysis revealed that 32 per cent of the variation in role performance may be explained by the above five variable. The path diagram of independent variables and role performance of male labourers is given in Fig. 8.

DISCUSSION

Chapter V

DISCUSSION

A detailed discussion of the results of this study is presented in this chapter.

5.1 Role perception of male agricultural labourers in decision-making with the farmer

The distribution of male agricultural labourers on the basis of role perception in decision-making with the farmer, given in Table 4.1 shows that the respondents had very low perception regarding their role in deciding the various aspects of seed treatment, use of weedicides, method of marketing the produce, adoption of mechanical means of ploughing and the place from where fertilizers are to be purchased.

It was observed that chemical seed treatment and use of weedicides were not practised by farmers in the study area. This might be the reason behind the negligibly low role perception of agricultural labourers in these areas of decision-making. Low perception of role in deciding the method of marketing the produce, adoption of mechanical means of ploughing and the place from where fertilizers are to be

purchased may be attributed to the fact that these decisions are entirely at the discretion of the farmer, and the labourers need not be consulted in taking such decisions.

Comparatively high role perception was found in deciding the number of labourers required for land preparation, transplanting, weeding, application of plant protection chemicals, harvesting and post harvest operations like threshing, winnowing and processing of straw. Dearth of enough labourers at peak times of paddy cultivation was reported by many farmers. This may tend them to entrust their labourers with the task of organising the additional labourers required for the work. Besides this, the eagerness of labourers to provide job oppurtunities to their acquaintances and friends also might have influenced their role perception. This might be the reason behind the high role perception in these areas of decision-making.

Role perception in deciding the time of pulling out seedlings and spacing to be adopted for transplanting was not found to be high among male agricultural labourers. The limited involvement of male labourers in transplanting the seedlings might have caused this low role perception.

Remarkably larger fractions of male labourers were found to have very high perception regarding their roles in

clearly illustrated in Table 4.1 showing the distribution of female labourers based on role perception.

In full agreement with the observation cited above, majority of female labourers (more than 65 per cent) manifested high role perception in deciding the spacing to be adopted for transplanting, number of labourers required for transplanting, time of weeding, number of labourers required for weeding, time of harvest, number of labourers required for harvesting and post harvest operations like threshing, winnowing and processing of straw. What is inferred from this is that unfamiliarity and lack of involvement have a significant bearing on the perception of any role.

Stray incidences of moderate role perception by a negligible fraction of respondents as seen in decisions on interval of irrigation in nursery and main field, number of labourers required for land preparation, and quantity of grains to be stored for seed may be an outcome of the high role perception maintained by the particular labourer.

5.3 Role performance of male agricultural labourers in decision-making with the farmer

The nature of distribution of male agricultural labourers based on their role performance (furnished in Table

4.3) shows a similarity with that of the distribution based on role perception.

No male labourer was found to perform any role in deciding the various aspects of seed treatment and use of weedicides. As discussed previously, this may be due to the fact that chemical seed treatment and use of weedicides are not practised by the farmers chosen for the study.

Only a very negligible fraction was found to perform their role in deciding the adoption of mechanical means of ploughing, spacing to be adopted for transplanting, place from where fertilizers are to be purchased and method of marketing the produce. Out of these, all the decisions except 'spacing to be adopted for transplanting' are at the disposal of the farmer. Moreover, role perception in these areas of decision-making was also found to be very low. Insignificant role performance by the labourers may be a manifestation of the reasons cited above. However, spacing to be adopted for transplanting, being an area in which mostly female labourers are involved is likely to express low role performance by male workers.

Still higher role performance was observed in the case of decision-making areas, namely, time of pulling out

seedlings, type of plant protection chemicals to be used and quantity of grains to be stored for seed. It is noteworthy to state that role perception in deciding the type of plant protection chemicals and quantity of grains to be stored for seed was substantially higher than actual role performance in these areas. It is logical to believe that the attitude of farmers might have influenced the role performance in the above cited areas of decision-making.

Role performance in deciding the number of labourers required for land preparation, transplanting, weeding, application of plant protection chemicals, harvesting and post harvest operations was fairly high. As seen earlier, the tendency of the farmer to entrust the labourer with the task of organising additional labour may be attributed to this finding.

Significantly higher fractions of the respondents were reported to have high role performance in deciding the variety to be selected, interval of irrigation required in the nursery and main field, number of ploughings required, type of fertilizers required for top dressing, time of weeding, time of application of plant protection chemicals and time of harvest. Compared to the above, performance was found to be mediocre in considerable fractions of the respondents, with respect to their roles in deciding the seed

rate to be used, type of manures and fertilizers to be used in basal application and quantities of fertilizers to be used for top dressing and plant protection chemicals to be used.

It is evident from the distribution that the actual role performance in many a decision-making area is not in full accordance with respective role perception. Though the labourers possess high role perception, it is ultimately the farmer who demands the role performance of his labourer. The mental disposition of the farmer, availability of resources and ever so many other factors are decisive in drafting the farmer's decisions.

5.4 Role performance of female agricultural labourers in decision-making with the farmer

The pattern of distribution of female agricultural labourers based on their role performance has a striking resemblance with that of the distribution based on role perception.

As could be understood from Table 4.3, role performance was found to be higher only in operations in which they had actually involved. Role performance was found to be very high in deciding the spacing to be adopted for

transplanting. Any how, it is not surprising that female labourers, who have adequate experience in transplanting perform much better in making decisions with the farmers regarding the aspects on transplanting.

Substantially high role performance was observed in decisions regarding the number of labourers required for transplanting, weeding, harvesting and post harvest operations and in deciding the time of weeding, whereas, notably higher role performance was not observed in deciding the time of harvest.

Similar to the distribution based on role perception, some stray incidents of high role performance by a negligibly small fractions of the respondents in certain decision-making areas like interval of irrigation required in the nursery and main field, and quantity of grains to be stored for seed, was also observed.

Interestingly, no respondent was found to perform any role in deciding the number of labourers required for land preparation, in contrast to the presence of a smaller fraction of respondents with moderate role perception in this area.

The observations are indicative of the disparity existing between role perception and role performance, though in a smaller magnitude. This may be due to the personal biases of the employer farmer in letting the labourers to participate in decision-making.

5.5 Difference between male and female agricultural labourers in role perception and role performance

The data presented in Table 4.5 illustrates the extreme disparity among male and female agricultural labourers in role perception and role performance in decision-making with the employer farmer. This may be an indication of the limited participation of female agricultural labourers in paddy production process. While the male agricultural labourers were observed to involve in almost every activity in relation to paddy cultivation, female labourers were found to concentrate on only a few operations like transplanting, weeding and harvesting. This is evident from a perusal of Tables 4.1 and 4.3. Since frequent involvement is essential for the development of better perception of a prescribed role, it is not surprising that female labourers with restricted exposure to paddy production process maintain only low perception regarding their roles.

In complete accordance with the previous observation, existence of exhorbitant differences among male and female labourers was found in the perception and performance of selected eleven role items upon which both the categories had expressed their opinion, with respect to the importance and frequency. Table 4.6 shows that significant difference did not exist in the role perception in decision-making areas, namely, number of labourers required for transplanting, time of weeding and number of labourers required for weeding.

As far as role performance is concerned, significant difference was found to exist only in deciding the number of labourers required for threshing, winnowing and processing of straw (Table 4.7).

The occurrence of such a wide disparity in the role perception and performance in decision-making may be an outcome of the discriminatory status imputed to women by the society.

Women, sidelined as mere domestic helpers in most of the rural families are deprived of opportunities to gather new know how in agriculture as well as other allied areas. On the contrary, men equipped with the modern trends and know-how enjoy an enormously enhanced prestige. This has led to

the gulf between the sexes, which is obviously manifested in the results presented in the tables cited.

This observation is reiterated by the opinion expressed by Heggade (1982) that lack of independent source of income and individual status are the factors impinging the ability of women to take decisions independently to participate in any kind of social and economic decision-making process. To conclude, the low role perception and role performance of women in decision-making with the farmer might have stemmed from the reasons discussed above.

5.6 Role of male agricultural labourers in decision-making as perceived by farmers.

In striking contrast to the observation on role perception and role performance by male labourers (Table 4.8) considerable fractions of the farmers were found to nurture higher perceptions regarding the role of male labourers in deciding the various aspects of seed treatment, type and quantity of weedicides to be used, time of pulling out seedlings, interval of irrigation required in the nursery, number of labourers required for transplanting and application of plant protection chemicals and method of marketing the produce. Very high perception was fostered by

role of labourers in deciding the spacing to be adopted for transplanting, place from where fertilizers are to be purchased and quantity of grains to be stored for seed were perceived to be high by only smaller fractions of respondents. Meanwhile, only a single farmer was found to have attached any importance to the role in deciding the adoption of mechanical means of ploughing.

An examination of the results emphasises the significance of personal biases of the employer farmers in ascribing importance to the role of labourers in decision-making with the farmers. The prejudices and misconceptions of the employer may also have a bearing on it. Employers with a track record of taking authoritarian decisions are most unlikely to seek any opinion of the employee while taking decisions.

5.7 Role of female agricultural labourers in decision-making as perceived by farmers.

Quite a great majority of the respondents had perceived the role of female labourers in deciding the spacing to be adopted for transplanting, number of labourers required for transplanting, time of harvesting and weeding and number of labourers required for harvesting and post harvest operations as important.

As seen earlier, female labourers in the locality involve only in transplanting, weeding and harvesting operations. As yet, female labourers have not been allowed to participate in other operations by the farmers. This might be the reasons behind this higher perception of farmers with regard to female labourers' role in the above cited areas.

5.8 Relationship between overall role perception and role performance of agricultural labourers

Highly significant and positive correlation was observed to exist between the overall role perception and performance. This finding reminds of the observations made by Sharma and Singh (1970), Thankamani (1971), Devadas et al. (1972), Mazumdar (1975), Sherwani (1983), Mallik et al. (1985), Rameshchand et al. (1985), Bhople and Thakar (1988), Santhagovind and Subramanyan (1988), Nataraju and Lovely (1989), Kumari and Nayar (1991), Sudharani and Raju (1991) and Bhople and Patki (1992).

Role perception and role performance are complementary to each other. A labourer having clear perception about his/her role in decision-making with the employer farmer is likely to perform his/her role in

instrumental in shaping one's role perception, it is the actual involvement in different aspects of agricultural production coupled with one's experience, which really matters.

This might be the reason for the insignificant relationship existing between educational status of agricultural labourers and their role perception in decision-making with the farmer.

5.9.2 Size of holding

The size of holding owned by agricultural labourers, either male or female, was found to have no significant correlation with their role perception in decision-making.

Though it is quite reasonable to think that agricultural labourers owning comparatively larger holdings are likely to have more awareness and clearer perception of their roles, it need not be so in all circumstances.

Non-existence of significant correlation may be due to the smaller holdings possessed by the labourers, wherein no paddy cultivation is practiced. Moreover, the agricultural labourers are largely dependent on their occupation as hired

decision-making and vice versa. This might have been the possible reason for the observed significant and positive correlation between overall role perception and role performance.

5.9 Relationship between selected characteristics of agricultural labourers and their role perception

The nature and degree of relationship between selected characteristics of agricultural labourers and their role perception were worked out by Pearson's product correlation coefficient and the calculated 'r' values are furnished in Table 4.9.

5.9.1 Educational status

No significant correlation was found to exist between role perception of both male and female agricultural labourers regarding decision-making with the farmer and their educational status. This finding comply with that of Sharma and Singh (1970) and Singh and Sinha (1970).

Educational status of an agricultural labourer need not be decisive in building up his/her role perception regarding decision-making with the farmer. Though there is every likelihood of high educational status being

labour than any other endeavor such as cultivation of crops in one's own holding, for their livelihood. This, perhaps does not necessitate them to think about the agricultural operations practised in their own holding. Thus, the contribution of this factor to role perception may not be significant. This finding endorses the inference of Seema (1986) establishing the non-existence of significant correlation between size of holding and role perception of farm women.

5.9.3 Farming experience

As per the data furnished in Table 4.9, farming experience was found to have positive and significant correlation with role perception of male agricultural labourers, whereas it did not show any significant relationship with that of female agricultural labourers.

The positive and significant relationship found to exist between farming experience of male agricultural labourers and their role perception indicates that more experience might have facilitated more exposure towards various operations in paddy production. This should have helped them in defining their role in decision-making more precisely.

This finding is in line with that of Sundararajan (1972) and Rexlin (1984).

The non-existence of significant relationship between farming experience and role perception in the case of female agricultural labourers may be due to the limited involvement of female labourers in paddy production process. Their participation was found confined to only a few operations namely, transplanting, weeding and harvesting. The exposure, which has been mentioned earlier, may not be large enough to create clearer perception regarding their role in decision-making with the farmer.

This finding is supportive of the inference made by Seema (1986).

5.9.4 Period of employment under the farmer

Role perception and period of employment were significantly and positively correlated in the case of male agricultural labourers, endorsing the statement made by Homans (1950), who observed that when the frequency of interaction between two or more persons increased, the degree of their liking for one another also increased and vice versa.

The significant and positive correlation found to prevail between role perception and period of employment under the farmer may be explained on the basis of the acquaintance established between the employer and employee, as a result of frequent interaction. The male labourers were found to involve in paddy production process, almost consistently throughout the year, under the same employer farmer. This permanency in employment under a farmer would certainly increase the interaction between the employer and employee, resulting in increased role perception.

No significant correlation was observed between the period of employment and role perception in the case of female agricultural labourers. This finding is in line with that of Seema (1986). It must be due to the lack of consistency in employment under a single farmer and limited involvement in paddy production process, which decreased the interaction between the employer and the employee.

5.9.5 Attitude towards job

Significant, positive correlation was observed to exist between attitude of both male and female agricultural labourers towards their job and role perception in decision-making. This finding supports that of Padmanabhan (1981).

Most of the respondents have been engaged in agricultural labour since their childhood, and have widely appreciated this as the sole way of livelihood. Though there had been stray voices of discontent, majority of the labourers were observed to have a liking towards their job, rooted deep within the heart. This positive attitude developed towards their job might have been influential in creating better perception of their roles in decision-making with the farmer.

5.9.6 Attitude towards scientific agricultural practices

This was found to have a positive and significant correlation with role perception of both male and female agricultural labourers selected for the study. This finding is in conformity with that of Padmanabhan (1981) in which the presence of positive and significant correlation between attitude of agricultural labourers towards scientific agricultural practices and their participation in decision-making with the farmer has been disclosed.

Agricultural labourers, with their decades-long familiarity in the field of agriculture, have experienced the merits and demerits of both traditional and modern methods of crop production. It is obvious that they have adjudged these two approaches and have become convinced of the potentiality of modern scientific methods in augmenting crop production.

Moreover, generation of new job avenues for agricultural labourers as a result of the adoption of scientific agricultural practices also might have helped the labourers in creating well resolved perception about their role in decision-making with the farmer.

5.9.7 Attitude towards employer farmer

Correlation between attitude towards employer farmer and role perception was found to be different in male labourers and female labourers. While a significant and positive correlation was observed in the former case, no significant relationship was found in the latter. Results of the studies conducted by Padmanabhan (1981) revealed the existence of significant positive relationship between attitude of male labourers towards employer farmer and their participation in decision-making with the farmer.

Male agricultural labourers were found to have involved in more number of operations than female labourers, as seen in Table 4.1. In such circumstances, the male labourers get fairly good exposure to the mental dispositions of their employer farmers and there by adequate opportunities to develop an attitude towards his employer. As against this, female labourers are bereaved of enough opportunities to

acquaint with the employer, due to their limited involvement in agricultural operations. This might have constrained them to figure out a definite attitude towards the employer farmer.

Farmers who are friendly, co-operative, empathic and appreciating good work of the labourers may produce within the labourer, a positive attitude towards the employer. Naturally, when a labourer is having a favourable attitude towards the employer farmer, he would identify himself with the objectives of the work undertaken by him, with increased responsibility. This would, ultimately result in greater role perception.

As mentioned earlier, the limited exposure towards agricultural operations and temporary nature of employment might be the reasons for the lack of significant correlation between the two variables in the case of female agricultural labourers.

5.9.8 Knowledge of scientific agricultural practices

This characteristic was found to have significant positive correlation with role perception in decision-making with the farmer.

Modern agriculture, being quite different from the traditional one is complex in several aspects like use of chemical fertilizers, plant protection materials, high yielding varieties, etc. The use of sophisticated means of crop production has necessitated the practitioners of modern scientific agriculture to possess adequate knowledge in the concerned field of operation. Labourers with substantially good knowledge may perceive their roles more vividly.

5.9.9 Feeling of responsibility in increasing agricultural production

This variable was found to have a significant positive correlation with role perception of male agricultural labourers, but did not show any significant relationship with the role perception of female labourers. This finding is in line with that of Desai (1969) and Padmababhan (1981).

Feeling of responsibility may be regarded as a favourable attribute in making decision and getting them implemented. A labourer with an unfailing responsibility will certainly identify himself with the tasks entrusted upon him and will be highly obliged to his employer. This indeed, would create clearer perceptions regarding one's role in decision-making.

Lack of correlation among these variables in the case of female agricultural labourers may be attributed to the shorter periods of employment under a farmer, lack of permanency in employment and limited involvement in paddy production process.

5.9.10 Social participation

This characteristic was found to have no significant influence on role perception of male as well as female agricultural labourers. This finding endorses the inferences obtained by Singh and Sinha (1970).

Social participation was observed to be comparatively low, among the respondents. Only a negligible fraction was found to have regular liaison with social organisations. Most of them were found to maintain only minimal contacts with the social organisations, and that too with monetary objectives like having membership in co-operative society for getting loans. Most of them were found to refrain from interfering in the affairs of such institutions. This attitude might have accounted for the non-significant relationship between their role perception and social participation.

5.9.11 Contact with extension agency

While role perception of male agricultural labourers did not show any correlation with this variable, significant positive correlation was found to exist in the case of female agricultural labourers.

Absence of significant correlation between the two variables in the case of male labourers may be indicative of the lack of strong nexus between male labourers and extension agencies. Male labourers with possibly higher mass media exposure and cosmopoliteness are likely to gather awareness from other sources, which have not been examined here. This might have reduced the influence of extension agencies in the role perception of male labourer. However the existence of significant correlation in the case of female labourers, with presumably low cosmopoliteness and mass media exposure, might have originated from their contacts with extension agencies. This might have helped them in developing higher consciousness regarding agricultural operations, which would have eventually influenced their role perception.

5.9.12 Achievement motivation

While significant positive correlation was observed to exist between achievement motivation and role perception

of male agricultural labourers, no significant correlation was found in the case of female labourers.

Male labourers who had been entrusted with the task of leading their families and finding means of livelihood, may possess a desire for excellence in their occupation to attain an inner feeling of satisfaction. Moreover, they may be in possession of a conviction that a good worker should be diligent and earnest while executing a task. This might have developed in them a better perception regarding their role in decision-making with the farmer.

The absence of significant correlation between these variables in the case of female labourers supports the finding of Seema (1986).

Mc Clelland's basic theme of achievement motivation construes the 'need to achieve' as an individual's orientation within the value complex of a culture. Achievement motivation thus entrenched in the value system of an individual, it is quite probable that social value might have influenced the labourer's perception and participation in implementing the decision. Scope for the dominance of one's need is rather less within the accepted value system. Majority of rural women, being constrained by lack of

independent source of income and individual status in traditional society, are deprived of the opportunities to manifest their desires and participate freely in any kind of socio economic decision-making. This might have accounted for the absence of significant correlation between achievement motivation and role perception of female agricultural labourers in decision-making with the farmer.

5.10 Relationship between selected characteristics of agricultural labourers and their role performance

The details of correlations between selected characteristics of agricultural labourers and their role performance are furnished in Table 4.10 and the relationships are discussed below.

5.10.1 Educational status

Similar to the case of role perception, no significant correlation was observed to prevail between role performance of both male and female agricultural labourers in decision-making with the former and their educational status.

As seen in the case of role perception, educational status need not be decisive in determining one's role performance, since the ultimate execution of expected roles

is dependent on many factors like experience, attitude towards employer farmer etc. Hence it is not surprising to learn that educational status did not have any significant bearing on role performance of agricultural labourers in decision-making with the farmer.

5.10.2 Size of holding

As in the case of educational status, size of holding was also found to have no significant relationship with role performance of both male and female agricultural labourers in decision-making with their employer farmers.

Lack of extensive cultivation because of the too fragmented, small sized holdings may be the reason for the non-existence of significant correlation between size of holding and role performance in decision-making. This is supportive of the findings of Seema (1986) which revealed similar relationship with role perception.

5.10.3 Farming experience

This was found to have significant positive correlation with role performance of male labourers, whereas no significant correlation was observed in the case of female

labourers. The nature of relationship is in concurrence with that found in the case of role perception. The absence of significant correlation between the two variables endorses the inference of Seema (1986).

The male agricultural labourers with vast experience in agricultural production process, resulted out of their years long familiarity and repeated exposures to various crop production activities must have caused better performance of their roles.

Absence of any significant correlation between the farming experience and role performance of female agricultural labourers may be due to their limited exposures to the different aspects of paddy production. Inconsistency of employment, which is a characteristics of female labour involved in paddy production process also might have contributed to the non-existence of significant relationship.

5.10.4 Period of employment under the farmer

Significant positive correlation was found to exist between this variable and role performance of both male and female agricultural labourers.

As mentioned in the case of role perception of male labourers, long term acquaintance established between the employer and employee coupled with frequent interaction may be instrumental in making the employee feel more responsible and sincere to the assigned task. This may lead to greater role performance in decision-making with the farmer.

5.10.5 Attitude towards job

Attitude of both male and female agricultural labourers was positively and significantly correlated with their role performance in decision-making with the farmer.

This finding is supportive of the statement made by Porter et al. (1974) and is in line with the finding of Ashaletha (1993), which revealed the significant positive relationship existing between role performance and attitude towards profession.

This significant relationship may be due to the importance ascribed to their job as the means of their livelihood.

Labourers with high regard for their job may try to perform their roles in decision-making with the employer more keenly than those with low regard.

5.10.6 Attitude towards scientific agricultural practices

This was positively and significantly correlated with role performance of both male and female agricultural labourers.

Modern scientific agricultural practices, demanding more attention and expertise, than traditional practices are viewed with utmost importance, with respect to their efficiency and potentiality in increasing the production. Agricultural labourers, who might have adjudged the merits and demerits of both these practices are aware of the farmer's significance in food grain production. This positive attitude towards scientific agricultural practices and the experiences gathered from multitude of job avenues created by modern agriculture might have resulted in better role performance in decision-making with the farmer.

5.10.7 Attitude towards employer farmer

This was also found to have significant positive bearing on the role performance of both male and female agricultural labourers in decision-making with the farmer.

As discussed earlier in the case of role perception, friendly, co-operative and encouraging behaviour of the employer towards the employee may produce within the latter, a favourable mental disposition towards the employer. The positive attitude thus generated may lead him to work earnestly for the accomplishment of the jointly set objectives. Eventually, it would result in better role performance by the labourers.

5.10.8 Knowledge of scientific agricultural practices

Role performance of both male and female agricultural labourers was significantly correlated with their knowledge of scientific agricultural practices.

Agricultural labourers with fairly good knowledge of scientific agricultural practices may comprehend the complexities and obstacles underlying in them and seek feasible solutions. Thus, knowledge of scientific agricultural practices help them perform their roles better.

5.10.9 Feeling of responsibility in increasing agricultural production

The nature of relationship of this variable with role performance was similar to that obtained in the case of

role perception. While significant positive correlation was observed in the case of male labourers, no significant correlation was seen in females.

Feeling of responsibility in increasing agricultural production was found to influence the role perception of male labourers. Significant positive correlation found to exist between this variable and role performance in decision-making with the farmer, reiterates the observations made by Currie (1977), Schregle (1978) and Srivastava (1982).

Feeling of responsibility in undertaking a task is certain to create a sense of commitment within the worker, which would improve the output qualitatively and quantitatively.

As discussed earlier, lack of permanency in employment under a farmer, shorter periods of employment, limited involvement in paddy production process and absence of adequate acquaintance with the farmer might have caused the absence of higher degree of work commitment and feeling of responsibility in female labourers. This may be the reason behind the reported absence of significant correlation between the two variables in female agricultural labourers.

5.10.10 Social participation

Quite similar to the results obtained in the case of role perception, social participation did not show any significant correlation with role performance of either male or female agricultural labourers.

Agricultural labourers being the poorer sections of the society keep only a low profile with respect to holding offices and memberships in social organisations. Their contacts are minimal and are confined within a small sphere of relatives and acquaintances. Many socio-economic reasons like low social and economic status, low educational status etc. may be behind this phenomenon. Moreover, the social organisations with which they have contact may not have anything related to agriculture in their agenda of activities. This also might have contributed to the non-existence of significant relation between these variables.

5.10.11 Contact with extension agency

No significant correlation was learnt to exist between contact with extension agency and role performance of male agricultural labourers whereas significant positive

correlation was observed to prevail between these two characteristics of female agricultural labourers. Quite interestingly, this result is in accordance with that obtained in the case of role perception.

On the contrary, female agricultural labourers, with higher role perception gathered from their contact with extension agencies might have performed their roles in decision-making much better.

5.10.12 Achievement motivation

As against the results obtained in role perception, achievement motivation was found to have positive and significant correlation with role performance of male and female agricultural labourers.

This finding confirms the arguments of Lowell (1952), Porter et al. (1974), Durand (1975), Singh and Kumar (1975), Luthans (1983) and Reddy (1983).

It is the spontaneously expressed desire of an individual to attain an inner feeling of personal accomplishment, rather than social recognition or prestige. It is instrumental in persuading a person to perform better. This might be the reason behind the existence of significant

positive correlation between achievement motivation and role performance in decision-making with the farmer. That is, the labourer in his pursuit to accomplish inner satisfaction, may perform his roles set for him, earnestly.

5.11. Step-wise regression analysis

Step-wise regression analysis was employed to identify the best sub-group of variables out of many for predicting the variations in the role perception and role performance of male and female agricultural labourers in decision-making with the farmer. This has also facilitated the determination of the relative contribution of each of the variables included in the analysis.

The variable with the maximum contribution is entered into the regression equation in the first step followed by the other variables in the order of their relative contribution in subsequent steps. Table 4.11 furnishes the results of step wise regression analysis of role perception of male agricultural labourers. As could be observed from the table, as much as 74.3 per cent of the total variation in the role perception of male agricultural labourers in decision-making with the farmer was explained by the four variables entered into the step-wise regression model.

Period of employment under the farmer, the first variable admitted into the step-wise regression emerged as the single most conspicuous factor among the chosen four variables in affecting the variations in the role perception of male labourers to the tune of 53.84 per cent. This testifies the importance of this variable observed in the simple linear correlation analysis. The remaining three variables namely, knowledge of scientific agricultural practices, farming experience and educational status have altogether contributed 20.46 per cent of the variation in the dependent variable.

Results of step-wise regression analysis of role perception of female agricultural labourers given in Table 4.12 reveals that knowledge of scientific agricultural practices stood as the most important factor among the selected two variables in influencing the variations in the dependent variable. This variable accounted for 37.76 per cent of the total variation in the dependent variable, whereas, attitude towards job, the second variable entered for the analysis was found to create only 5.41 per cent of the variation. This result declares the significance of knowledge of female agricultural labourers in scientific agricultural practices observed. Step-wise regression analysis of role performance of male agricultural labourers

presented in Table 4.13 shows that as much as 62.22 per cent of the variation in the dependent variable was due to the influence of five variables, namely, knowledge of scientific agricultural practices, attitude towards job, size of holding, farming experience and social participation. It was knowledge of scientific agriculture which emerged as the most prominent factor affecting the role performance. This variable was found to account for 46.06 per cent of the variation in the dependent variable. The remaining four variables have contributed 26.16 per cent of the total variation in the role performance of male agricultural labourers in decision-making with the farmer.

As evident from Table 4.14, three variables namely, period of employment, knowledge of scientific agricultural practices and farming experience have jointly contributed 79.25 per cent of the variation in the role performance of female agricultural labourers. Among these, period of employment was identified as the single most important variable which has contributed substantially to the variations in the dependent variable, to the tune of 58.2 per cent.

5.12. Path Analysis

Results of path analysis given in Table 4.15 indicated that the highest direct effect towards role

perception of male agricultural labourers in decision-making was due to period of employment. Other characteristics of the respondents namely, educational status, farming experience and knowledge of scientific agricultural practices had indirect effects through the aforesaid characteristic.

Period of employment under a farmer plays an important role in establishing intimacy and support with the employer farmer. Familiarity of the labourer with the employer leads to free exchange of ideas between them. This would in fact help them build a sense of commitment and responsibility and thereby greater role perception within the labourer.

In the case of role performance in decision-making, it was knowledge of scientific agricultural practices which had maximum direct effect on the dependent variable. Characteristics like farming experience and attitude towards job had substantial indirect effects through this variable, while social participation and size of holding had only negligible negative indirect effects (See Table 4.16).

These results are illustrative of the prominence of knowledge of scientific agricultural practices in the role performance of male agricultural labourers. Knowledge is bound to produce better comprehension of the activities to be undertaken and how well it could be done. It is not at all surprising to observe that a farmer, with good appreciation about the knowledge level of his employee would ensure his participation, while making decisions.

SUMMARY

Chapter VI

SUMMARY

Labour is an integral part of any production function and agricultural labourers form a major fraction of the total work fore available in our country. Hence, its significance in increasing the agricultural production can not be neglected. It is widely believed that the quality of labour can be improved by ensuring labourers' participation in decision-making by the employer, since it would motivate them and create among them a sense of responsibility to accomplish the objectives commonly set. So far, no study has been conducted in Kerala with the aim of understanding the role of agricultural labourers in decision-making with the farmer.

The specific objectives of the study were

1. To identify the areas of decision-making by agricultural labourers with the farmers employing them in paddy production in Thiruvananthapuram district.

2. To identify the role perception and role performance of male and female agricultural labourers in decision-making.

3. To study the role of male and female agricultural labourers in decision-making as perceived by the farmers employing them.

4. To analyse the characteristics of male and female agricultural labourers in relation to their role perception and role performance.

The investigation was conducted in Thiruvananthapuram district which is one among the nine districts having comparatively high population of agricultural labourers. Three categories of respondents namely, 60 farmers constituted by 10 each from the two randomly selected Krishi Bhavans from each of the three sub-divisions in Thiruvananthapuram district, 60 male agricultural labourers and 60 female agricultural labourers employed by the selected farmers were identified for the study.

The areas of decision-making in paddy cultivation were identified on the basis of review of literature, discussion with experts, farmers and agricultural labourers and a preliminary study conducted in a non-sample area. To measure the role perception and role performance, the identified decision-making areas in paddy production were administered to the agricultural labourers and they were asked to indicate their responses with respect to the

importance attached to the role and the frequency of performance respectively in a three point continuum. Role of agricultural labourers in decision-making as perceived by farmers was measured by recording their responses with respect to the importance ascribed to the role in a three point continuum.

The characteristics of male and female agricultural labourers in relation to their role perception and role performance were identified based on review of literature and opinion of judges. Regarding the measurement of the identified characteristics of agricultural labourers, educational status, period of employment under the farmer, attitude towards job, attitude towards employer farmer, feeling of responsibility in increasing the agricultural production were measured by the methods adopted by Padmanabhan (1981). Size of holding was quantified in terms of 'cents' and Farming experience, in terms of total number of years the labourer had been engaged in doing agricultural labour. Social participation was quantified by means of the procedure used by Lokhande (1974). Contact with extension agency was measured by using the procedure followed by Badarinarayanan (1977). Knowledge of scientific agricultural practices was measured by a teacher-made test consisting of simple question items and constant alternative items (True-False) as explained by Remmers et al. (1967). Achievement

motivation was measured by the procedure adopted by Kalavathi (1989). Attitude towards scientific agricultural practices was quantified by a procedure devised by the researcher, following the method of summated ratings described by Likert (1932).

Separate structured draft interview schedules were prepared in English and a translated version in Malayalam for collecting data from farmers and labourers.

Data were subjected to percentage analysis, simple correlation analysis, step wise regression analysis, path analysis and students' t test.

The salient findings of the study are summarised below:

1. Thirty one areas of decision-making in paddy production were identified and were categorised into ten broad areas, namely, selection of varieties and seedrate, seed treatment, nursery preparation, land preparation, transplanting, application of manures and fertilizers and irrigation, weed control, plant protection, harvesting and processing and marketing.

2. Role of agricultural labourers in deciding the interval of irrigation required in nursery, number of ploughings required, number of labourers required for land preparation, weeding operations, harvesting and time of

harvesting was perceived to be 'very important' by more than 20 per cent of the male agricultural labourers. More than 70 per cent of the male agricultural labourers perceived their role in deciding the variety to be selected, interval of irrigation required in nursery, type of manures and fertilizers to be used in basal application, type of fertilizers required for top dressing, irrigation of crop in the mainfield, time of weeding and time of application of plant protection chemicals as 'important'.

3. More than 60 per cent of the female agricultural labourers viewed their role in deciding the spacing to be adopted for transplanting, number of labourers required for transplanting, time of weeding and number of labourers required for weeding operations as 'important'.

4. Sixty per cent of the male agricltural labourers and 61.67 per cent of the female agricultural labourers were having low role perception and the rest possessed high role perception.

5. More than 30 per cent of the male agricultural labourers reported that they had 'always' performed their role in deciding the number of ploughings required, number of labourers required for land preparation and time of harvest.

10. No significant difference was found to exist among male and female agricultural labourers in the perception of their role in deciding the number of labourers required for transplanting, time of weeding and number of labourers required for threshing, winnowing and processing of straw. With regard to role performance, no significant difference was observed among male and female labourers in deciding the number of labourers required for threshing, winnowing and processing of straw. With respect to the remaining decision-making areas, significant difference was found to exist among male and female agricultural labourers in their role perception as well as role performance.

11. More than 30 per cent of the farmers perceived the role of male agricultural labourers in deciding the interval of irrigation required in nursery, number of ploughings required, number of labourers required for land preparation and time of harvesting as 'very important'. Role of male agricultural labourers in deciding the number of labourers required for transplanting, type of manures and fertilizers to be used in basal application, irrigation of crop in the mainfield, time of weeding, number of labourers required for weeding operations, time

of application of plant protection chemicals and quantity of plant protection chemicals was perceived as 'important' by more than 70 per cent of the farmers.

12. More than 70 per cent of the farmers perceived the role of female agricultural labourers in deciding the spacing to be adopted for transplanting, number of labourers required for transplanting, time of weeding and number of labourers required for threshing, winnowing and processing of straw as 'important'.

13. Significant positive correlation was observed for eight characteristics of male agricultural labourers, namely, farming experience, period of employment under the farmer, attitude towards job, attitude towards scientific agricultural practices, attitude towards employer farmer, knowledge of scientific agricultural practices, feeling of responsibility in increasing the agricultural production and achievement motivation, with their role perception as well as role performance in decision-making with the farmer.

14. Significant positive correlation was observed for four characteristics of female agricultural labourers namely, attitude towards job, attitude towards scientific agricultural practices, knowledge of scientific agricultural practices and contact with extension agency

with their role perception and role performance in decision-making with the farmer. Three characteristics namely, period of employment under the farmer, attitude towards employer farmer and achievement motivation were found to have significant positive correlation with role performance alone.

15. As much as 53.84 per cent variation in the role perception of male agricultural labourers was explained by period of employment under the farmer. Knowledge of scientific agricultural practices contributed 37.76 per cent of the total variation in the role perception of female agricultural labourers.

16. Knowledge of scientific agricultural practices accounted for 46.06 per cent variation in the role performance of male agricultural labourers. With regard to role performance of female agricultural labourers, period of employment under the farmer was found to explain as much as 58.20 per cent of the total variation.

17. Period of employment under the farmer has maximum direct effect on role perception of male agricultural labourers.

18. Knowledge of scientific agricultural practices has maximum direct effect on the role performance of male agricultural labourers.

Implications of the study

Results of the study emphasises the need for conducting still more comprehensive explorations regarding the role of agricultural labourers in decision-making, which would help the farmers develop meaningful human resource management techniques. Moreover, the results of the study focus on the importance of imparting training to the agricultural labourers on modern scientific agricultural practices so as to equip them with the knowledge of scientific agricultural practices and sense of responsibility in executing the assigned task. The inferences of the study also call for the formulation of new motivational techniques to utilise the labour force effectively for augmenting productivity.

Suggested line of further research

1. Conduct similar studies in other district also, so as to cover the entire state

2. Include more number of variables and study their influence on the role perception and performance of agricultural labourers.

3. Conduct experimental studies to reveal the impact of training on role perception and role performance of agricultural labourers.

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* Orignals not seen

APPENDICES

APPENDIX I

District wise population of agricultural labourers in Kerala

Sl. No.	District	Number of agricultural labourers
1.	Kasaragod	80000
2.	Kannur	121193
3.	Wyanad	74237
4.	Kozhikode	82002
5.	Malappuram	225737
6.	Palakkad	347702
7.	Thrissur	182266
8.	Ernakulam	134845
9.	Iduki	86030
10.	Kottayam	124876
11.	Alappuzha	143707
12.	Pathanamthitta	86669
13.	Kollam	153047
14.	Thiruvananthapuram	261064
		2103395

Source : Census of India 1991

APPENDIX II

Sub-division wise distribution of Krishi Bhavans in Thiruvananthapuram district

Sl. No.	Sub division	Number of Krishi Bhavans
1.	Attingal	29
2.	Neyyattinkara	30
3.	Nedumangadu	25
Total		84

APPENDIX III

KERALA AGRICULTURAL UNIVERSITY

Dr. V. B. PADMANABHAN
Associate Professor (NC)

Department of Agrl. Extension
College of Agricultre,
Vellayani, Thiruvananthapuram
Kerala. Dated : 2-4-1993

Dear Sir,

Mr. Jiju P. Alex, M.Sc. (Ag.) student of this Department has taken up a study entitled "Role of Agricultural labourers in decision making in paddy production, by farmers in Thiruvananthapuram district" under my guidance.

In this regard, some independant variables have been identified based on the review of literature and discussion with experts in this field. The list is appended herewith.

The lsted independant variables have to be judged for their relevancey in contributing to the role of agricultural labourers in decision making in paddy production by farmers.

Considering your academic qualifications and experience in this field, I have pleasure to inform that you are recognised as a judge for the present study. I request you to kindly spare some of your valuable time out of your busy schedule of work to do the following:

1. Examine and rate the relevancy of the independant variables and mark against each in the appropriate column (very much relevant/very relevant/moderately relevant/slightly relevant/irrelevant) in the appendix enclosed.

2. Add any other specific factors which you feel relevant in this regard.

3. Ensure that all the independant variables are rated by you.

4. Kindly return the relevancy rated appendix to Mr. Jiju P. Alex.

Soliciting your co-operation and with regards

Yours sincerely,

Sd/-
(V. B. Padmanabhan

To

VAriables associated with Agricultural Labourers	Very much relevant	Very relevant	Moderately relevant	Slightly relevant	Irrelavant
1. Age					
2. Caste					
3. Educational status					
4. Family educational status					
5. Konwledge of Scientific agricultural practices					
6. Knowledge of development programmes for agricultural labourers					
7. Farming experience					
8. Attitude towards job					
9. Attitude towards employer					
10. Attitude towards Scientific Agricultural practices					
11. Social participation					
12. Level of aspiration					
13. Value orientation					
14. Achievement motivation					
15. Feeling of responsibility in increasing agricultural production					
16. Period of employment under the farmer					
17. Contact with extension agency					
18. Size of holding					
19. Membership in political organisations					
20. Attitude towards Labour Unions					
Any other					

Appendix IV

List of statements with 't' values used in attitude scale construction (Attitude of agricultural labourers towards scientific agricultural practices)

Sl. No.	Statement	't' value
1.	Introduction of high yielding varieties is a boon to the country.	3.052
2.	Food grain production can be increased only by cultivating High Yielding Varieties.	4.464
3.	Increasing demand for food grains can be met only by the cultivation of High Yielding Varieties.	2.359
4.	Cultivation of High Yielding Varieties is not profitable.	2.671
5.	Cultivation of High Yielding Varieties spoils the soil.	4.219
6.	High Yielding Varieties are not better than local varieties.	1.247
7.	Utilization of more inputs in the cultivation of High Yielding Varieties is useful.	0.497
8.	As the High Yielding Varieties are frequently prone to pests and diseases, it is uneconomic to cultivate them.	2.357

Sl. No.	Statement	't' value
9.	Crop production has increased as a result of chemical fertilizer application.	4.979
10.	Crop production can be increased only by using chemical fertilizers.	7.665
11.	Continuous use of chemical fertilizers spoils the soil.	4.457
12.	Application of chemical fertilizers make the crops more susceptible to pests and diseases.	2.034
13.	Application of recommended dose of chemical fertilizers results in increased yield.	1.82
14.	Use of chemical fertilizers is economic, despite the hike in prices.	1.249
15.	Yield of crops will compensate the expenditure on chemical fertilizers.	2.27
16.	Application of chemical fertilizers is a waste of money and time.	4.05
17.	Closer spacing of plants increases yield.	1.546
18.	Adoption of recommended spacing facilitates easier inter cultural operations.	4.75
19.	Spacing is not necessary for better yield.	2.449
20.	Spacing is a sheer waste of land.	4.12

Sl. No.	Statement	't' value
21.	Adoption of recommended spacing increases the efficiency of irrigation and fertilizer application.	1.762
22.	Adoption of recommended spacing facilitates better growth of plants.	3.238
23.	Application of pesticides is harmful to crops.	7.38
24.	Application of fungicides and pesticides make the soil poisonous.	2.55
25.	Use of pesticides and fungicides are not profitable	5.88
26.	Pests and diseases cannot be controlled by plant protection chemicals.	1.73
27.	A combination of different plant protection methods is more effective.	1.124
28.	Pesticides and other plant protection chemicals are to be used as soon as the incidence of pest or disease is noticed.	1.729
29.	Plant protection chemicals are harmful to human health.	2.41
30.	Pests and diseases can be controlled only by the application of recommended pesticides and fungicides.	5.069

Sl. No.	Statement	't' value
31.	Pesticides and fungicides deteriorates the quality of soil.	3.17
32.	Control of pests and diseases by traditional methods is a sheer waste of time and money.	2.15
33.	Modern plant protection methods save money and time.	7.44
34.	Stopping the application of chemical plant protection materials will reduce the cost of cultivation.	3.697
35.	Plant protection by means of chemical compounds causes environmental pollution.	7.91
36.	Heavy crop losses have not occurred since the invention of modern scientific plant protection practices.	5.26
37.	A successful farmer must use fungicides and pesticides.	5.93
38.	Traditional methods of plant protection are the most effective methods.	4.015
39.	Use of pesticides and fungicides should be banned by law.	2.315
40.	Use of poisonous pesticides and fungicides is the worst aspect of modern agricultural technology.	3.153

APPENDIX V

Department of Agricultural Extension
College of Agriculture
Vellayani, Thiruvananthapuram

Interview schedule for agricultural labourers

No.
Date:

1. Name and address of the respondent

2. Name of the employer farmer

3. Your educational status :

   Illiterate/can read only/can read and write/
   Primary school/middle school/High school

4. What is the total area of land possessed by you

Wet land	---	Cents
Dry land	---	Cents
Homestead	---	Cents
Total	---	Cents

5. For how long you have been engaged in farming (in completed years)

   ----- years

6. For how many days you are employed as agricultural labourer under the farmer, in the previous year:

   ----- Days

	Virippu	Mundakan	Punja
No.of days			

Total days

7. Attitude towards job

Following are some remarks which reflect the attitude of agricultural labourers to their job Please state to what extent you agree or disagree with these statements

		SA	A	UD	DA	SDA
a.	Agricultural labour is one of the best jobs that I can get in the present circumstances					
b.	I like doing agricultural labour than any other occupation					
c.	Agricultural labourers have a low social status					
d.	I like my children becoming agricultural labourers in the future					
e.	I have accepted this job became I didnot get any other job					
f.	Even if wage is not increased in the near future, I will continue in this profession					
g.	Any other job is better than this job					
h.	I feel no loyalty to the profession					
i.	I feel much pride in doing agricultural labour					
j.	I wish to give up this job and accept any other job					
k.	Doing agricultural labour is a useful job					
l.	This is a dull job					

8. Attitude towards scientific agricultural practices

Following are some statements made by some agricultural labourers. Please state to what extent you agree or disagree with these statements.

	SA	A	UD	DA	SDA
1. Food grain production can be increased only by cultivating high yielding varieties					
2. High yielding varieties deteriorate the quality of soil					
3. Application of chemical fertilizers increase the production of crops					
4. Continuous use of chemical fertilizers spoil the soil					
5. Crop production can be increased only by using chemical fertilizers					
6. Application of chemical fertilizers is a waste of money and time					
7. Adoption of recommended spacing facilitate easy inter cultural operation					
8. Spacing is a sheer waste of land					
9. Application of pesticides is harmful to crops					
10. Use of pesticides is not a profitable practice					
11. Plant protection by means of chemical compounds causes environmental pollution					
12. Modern plant protection practices save money and time					

13. Heavy crop losses have not occurred since the invention of modern scientific plant protection practices

14. A successful farmer must use fungicides and pesticides

9. Attitude towards employer farmer

Please state whether you agree or disagree with the following remarks made by some agricultural labourers

Agree/Disagree

a. The farmer is interested only in making the labourers work hard

b. The farmer has no interest in the welfare of the labourers

c. The farmer co-operates with the labourers to a certain extent

d. The farmer let the labourers free to do work

e. The farmer understands well the difficulties and needs of the labourers and acts accordingly

f. Labourers get satisfaction if they work under this farmer only

10. Knowledge of scientific agricultural practices:

A. Answer the following items

a. Name a high yielding variety of rice
b. What is the seedrate in transplanted rice?
c. Name a chemical used for seed treatment
d. What is the recommended dosage of fertilizer for rice?
e. What are the stages of growth of rice at which fertilizers are applied?
f. Name an important pest of rice
g. Give the control measure of prevent its attack
h. Name an important disease of rice
i. Mention its control measure
j. Name any weedicide used for the control of weeds?

k. Why do we apply lime?
l. What is the duration of "Jyothi"?

B. State whether the following statements are true or false

1. Seed treatment is done to control disease
2. Plant protection chemicals should be sprayed in the wind word direction
3. Weedicides if applied in excess dose will affect the crop adversely.

C. Answer the following questions

1. What is the volume of spray fluid contained in a medium sized knapsck spranger
2. What is the area required for raising seedlings (nursery) for one acre of crop areas in the main yield?

11. Feeling of responsibility in increasing agricultural production

Mention how much responsibility you feel yourself in increasing the agricultural production of the farmer

Very much responsible	Responsible	Undecided	Not responsible

12. Social participation

State whether you are/had been a member/office bearer of any organization

Sl. No.	Organization	As member	As office Bearer	Attendance in meeting		
				Regularly	Occassionally	Never
1.	Panchayath					
2.	Co-operative society					
3.	Rural radio forum					
4.	Youth club					
5.	Any other (specify)					

13. Contact with extension agency:-
How often do you come in contact with the following personnel

a. Response

Known (1)
Unknown (0)

b. Frequency of contact

1. Once in a week (6)
2. Once in a fortnight (5)
3. Once in a month (4)
4. Once in a quarter (3)
5. Once in 6 months (2)
6. Once in a year (1)

c. Purpose

1. To get technical guidance (5)
2. To avail subsidy and agricultural implements (4)
3. To avail input assistance (3)
4. Non-agricultural purposes (2)
5. Personal (casual) (1)

14. Please indicate the degree of agreement with each of the following statements

	SA	A	UD	DA	SDA
1. One should enjoy work as much as play					
2. One should work like a slave at every thing, one undertakes, unless heis satisfied with a result					
3. One should succeed in his occupation even if one has been negelectgul of his family					
4. One should have determination and driving ambition to achieve certain things in life even if these qualities make one unpopular					

5. Work should came first even if one can't get rest

6. Even when one's interests are in danger he should concentrate on his job and forget his obgligation to others

7. One should set difficult goals for oneself and try to reach them

15. Following are some areas of decision making in paddy cultivation done by your employer farmer. Indicate responses regarding your role perception and role performance about each are of decision making

Areas of decision making	Role perception			Role performance		
	V.I	I	N.I	Always	Sometimes	Never
1. Variety to be selected						
2. Seed rate to be used						
3. Whether the seeds are to be treated or not						
4. Type of seed treatment to be done						
5. Chemicals to be used in seed treatment						
6. Quantity of chemicals to be used						
7. Time of pulling out seedlings						
8. Interval of irrigation required in nursery						
9. Number of ploughings required						
10. Whether the ploughing is to be done mechanically or by draught animals						
11. Number of labourers required for land preparation						
12. Spacing to be adopted for transplanting						

13. Number of labourers required for transplanting

14. Type of manures and fertilizers to be used in basal application

15. Type of fertilizers required for top dressing

16. Quantity of fertilizers to be used for top dressing

17. Place from where the fertilizers are to be purchased

18. Irrigation of crop in the main yield

19. Time of weeding

20. No. of labourers required for weeding operations

21. Type of weedicides to be used

22. Quantity of weedicides to be used

23. Type of pesticides and fungicides to be used

24. Labour requirement for the application of plant protection chemicals

25. Time of application of pp chemicals

26. Quantity of chemicals to be used

27. Time of harvesting

28. Number of labourers required for harvesting

29. Number of labourers required for threshing, winnowing and processing of straw

30. Quantity of grains to be stored for seed

31. Method of marketing the produce

APPENDIX - VI

Interview schedule for farmers

Name and Adress

Sub-division
KrishiBhavan

List of male agricultural labourers employed by you in the last year:

List of female agricultural labourers employed by you in the last year:

Following are the areas of decision making in paddy cultivation taken by farmers. Indicate your response regarding the role of agricultural labourers employed by you in taking these decisions

Areas of decision making	Role of labourers as perceived by you					
	Very important		Important		Not Important	
	m	f	m	f	m	f
1. Variety to be selected						
2. Seed rate to be used						
3. Whether the seeds are to be treated or not						
4. Type of seed treatment to be done						
5. Chemicals to be used in seed treatment						
6. Quantity of chemicals to be used						
7. Time of pulling out seedlings						
8. Interval of irrigation required in nursery						
9. Number of ploughings required						
10. Whether the ploughing is to be done mechanically or by draught animals						
11. Number of labourers required for land preparation						

12. Spacing to be adopted for transplanting

13. Number of labourers required for transplanting

14. Type of manures and fertilizers to be used in basal application

15. Type of fertilizers required for top dressing

16. Quantity of fertilizers to be used for top dressing

17. Place from where the fertilizers are to be purchased

18. Irrigation of crop in the main field

19. Time of weeding

20. No. of labourers required for weeding operations

21. Type of weedicides to be used

22. Quantity of weedicides to be used

23. Type of pesticides and fungicides to be used

24. Labour requirement for the application of plant protection chemicals

25. Time of application

26. Quantity of chemicals to be used

27. Time of harvest

28. Number of labourers required for harvesting

29. Number of labourers required for threshing, winnowing and processing of straw

30. Quantity of grains to be stored for seed

31. Method of marketing the produce

ROLE OF AGRICULTURAL LABOURERS IN DECISION MAKING IN PADDY PRODUCTION BY FARMERS IN THIRUVANANTHAPURAM DISTRICT

By

JIJU P. ALEX

ABSTRACT OF THE THESIS
SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENT FOR THE DEGREE
MASTER OF SCIENCE IN AGRICULTURE
FACULTY OF AGRICULTURE
KERALA AGRICULTURAL UNIVERSITY

DEPARTMENT OF AGRICULTURAL EXTENSION
COLLEGE OF AGRICULTURE
VELLAYANI — TRIVANDRUM
1994

ABSTRACT

A research study entitled, "Role of agricultural labourers in decision-making in paddy production by farmers in Thiruvananthapuram district" was undertaken with a view to identify the areas of decision-making by agricultural labourers with the employer farmers in paddy production, to identify the role perception and role performance of male and female agricultural labourers in decision-making, to study the role of male and female agricultural labourers in decision-making as perceived by the farmers employing them and to analyse the characteristics of male and female agricultural labourers in relation to their role perception and role performance.

The study was conducted in the three Agricultural sub-divisions of Thiruvananthapuram district, namely, Attingal, Neyyattinkara and Nedumangad. Stratified two-stage random sampling was followed to select 60 farmers, 60 male agricultural labourers and 60 female agricultural labourers. Data were collected from farmers and labourers using separate interview schedules. Suitable statistical techniques like percentage analysis, simple correlation analysis, step-wise regression analysis, path analysis and students' t test were employed in the analysis of data.

Thirty one areas of decision-making in paddy production were identified in which agricultural labourers had their role with the employer farmers. The study indicated that the role perception and role performance of agricultural labourers, though not excellent was generally good in activities they involve most frequently. A vast majority of male labourers were found to have considerably higher role perception in decision-making with the farmers in agricultural practices such as variety to be selected, type of manures and fertilizers to be used in basal application, type of fertilizers required for top dressing and irrigation of crop in the mainfield. Remarkably higher fractions of female labourers were observed to have significant role perception in decision-making areas namely, spacing to be adopted for transplanting, time of weeding and harvesting number of labourers required for transplanting, weeding, harvesting, threshing, winnowing and processing of straw.

Significantly higher fractions of the male respondents were reported to have high role performance in deciding the variety to be selected, interval of irrigation required, type of fertilizers required in the nursery and mainfield, number of ploughing required for top dressing, time of weeding, time of application of plant protection chemicals and number of labourers required for weeding.

Role performance of majority of female agricultural labourers was higher in deciding various aspects of transplanting, weeding and harvesting. Role perception and role performance of agricultural labourers were found to be significantly correlated to each other. Significant difference was observed among male and female agricultural labourers with regard to overall role perception and role performance.

Majority of farmers perceived the role of male agricultural labourers, 'as important' in deciding the number of labourers required for transplanting, type of manures and fertilizers to be used in basal application, irrigation of crop in the mainfield, time of weeding, number of labourers required for weeding operations, time of application of plant protection chemicals and quantity of plant protection chemicals. Role of female agricultural labourers in deciding various aspects of transplanting, weeding and harvesting was ascribed significant importance by the employer farmers.

Significant positive correlation was observed for three characteristics of both male and female agricultural labourers, namely, attitude towards job, attitude towards scientific agricultural practices and knowledge of scientific agricultural practices with their role perception as well as role performance.

'Period of employment under the farmer', contributed as much as 53.84 per cent variation in the role perception of male agricultural labourers. 'Knowledge of scientific agricultural practices' accounted for 37.76 per cent variation in the role perception of female labourers. With regard to role performance, knowledge of scientific agricultural practices accounted for 46.06 per cent variation in the case of male agricultural labourers and 'period of employment under the farmer' accounted for 58.20 per cent variation in the case of female agricultural labourers. 'Period of employment under the farmer' had maximum direct effect on the role perception of male agricultural labourers, whereas, it was 'knowledge of scientific agricultural practices' which had maximum direct effect on the role performance.