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**PERFORMANCE EFFECTIVENESS OF TEACHERS
IN THE AGRICULTURAL COLLEGES OF
KERALA AGRICULTURAL UNIVERSITY**

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**Thesis submitted in partial fulfillment of the requirement
for the degree of**

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**DEPARTMENT OF AGRICULTURAL EXTENSION
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DECLARATION

I hereby declare that this thesis entitled “**Performance effectiveness of teachers in the agricultural colleges of Kerala Agricultural University**” 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 **“Performance effectiveness of teachers in the agricultural colleges of Kerala Agricultural University”** is a record of research work done independently by Miss. M. Mercy Bella (2004-11-03) under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to her.



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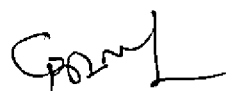
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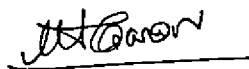


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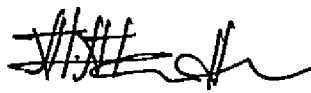
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INTRODUCTION

1. INTRODUCTION

Agriculture is the corner stone of Indian economy. Even today it provides livelihood to majority of the rural people. Not only to the rural people, but also it ensures food security for the country itself. The availability of ample raw material from agriculture accelerated the growth of value addition and industrial development. Therefore, agricultural development is a pre-condition of our national prosperity.

The Agricultural Universities play a key role in the agricultural development of various regions by generation of region specific technologies, human resources development required for agricultural progress and capacity building of the users system. Agricultural education is an important tool in ensuring increased agricultural productivity, sustainability, environmental and ecological security, profitability and job security. In the process of making education more meaningful, the first turn goes to the teacher who has to play a pivotal role in instilling the students, a sense of security, confidence and commitment towards better adjustment based on mutual trust and excellence. The teacher has inescapable roles in moulding the personality of the pupils, in building a better social order and as the desirable change agent of the traditional society and is expected to perform the roles like character building, good citizenship training, intellectual advancement, parental role-replacement etc. (Sinha, 2004). So the teachers have to mould themselves to have an integrated personality and a group of personal traits such as enthusiasm, integrity, patience, emotional stability and interest in students to serve as a role model, as teacher is the heart of the educational system.

The Kerala Agricultural University (KAU) Act 33 of 1971 defines a teacher as a person appointed or recognized by the university for the purpose of imparting instructions, conducting research and solution-oriented extension education. So education in agricultural universities is not an isolated happening; but a combination of threefold functions viz., teaching, research and extension education. Only the better performing teacher can produce better students who are the foundation stone of the future.

In order to achieve this, the teachers have to perform their roles effectively. The teaching activities are to be periodically updated and need to be monitored and assessed for ensuring performance effectiveness. Performance assessment of the staff of any organization is an integral part of organization development strategies and such appraisal are important in agricultural universities in view of dynamic nature of agriculture. When assessment of teachers is done periodically and systematically, it can provide a chance for teachers to reflect on their daily practices and can help them to gear their teaching for more effectiveness which would take any educational institution to 'Excellence in Education' (Kannaiyan, 2001).

Hence the present study on 'Performance effectiveness of teachers in the agricultural colleges of the Kerala Agricultural University' was designed to assess the performance effectiveness of teachers working in agricultural colleges of the Kerala Agricultural University and it was measured in terms of the triple functions of teaching, research and extension education.

The specific objectives of the study were

1. To assess the performance effectiveness of teachers in the agricultural colleges of the Kerala Agricultural University.
2. To delineate the factors which influence the performance effectiveness of teachers.

3. To identify the constraints affecting the performance effectiveness of teachers
4. To suggest measures to enhance the performance effectiveness of teachers.

Scope of the study

To ensure the expected output as teacher, the performance effectiveness of the teachers have to be studied. It would help the management to draw appropriate policies and programmes to improve the performance of the teacher, which in turn improves the performance of the students.

Through this study it is aimed to bring out a clear picture of the performance effectiveness of the teachers in the agricultural colleges of the Kerala Agricultural University.

The result of this study would help to identify the lacunae present in the colleges of the Kerala Agricultural University and facilitate further enhancement of the performance level.

Limitations of the study

The present research being a part of the M.Sc. degree programme had the limitations of time, money and other resources which restricted a comprehensive and an in-depth study. However careful and rigorous procedures have been adopted to carryout the research systematically.

The study of performance effectiveness of teachers covered only teachers who have offered courses for the undergraduate students during the academic year 2005-2006. The teachers who offered courses for the postgraduate students were

excluded. Similarly, around fifty per cent of the teachers working in the research stations were also not included in the study; though they are the employees of Kerala Agricultural University. Hence generalizations of the findings would be directly applicable to the undergraduate teachers only. However, utmost care was taken to make this study as objective as possible.

THEORETICAL ORIENTATION

2. THEORETICAL ORIENTATION

In this part, clarification of important concepts is being made with theoretical definitions and explanations. This also assists in evaluating one's own research efforts by comparing them with related efforts of others. The review is presented under the following headings

- 2.1 Concept of performance effectiveness
- 2.2 Extent of performance effectiveness
- 2.3 Factors influencing the performance effectiveness
- 2.4. Profile characteristics of teachers
- 2.5 Constraints
- 2.6 Conceptual frame work of the study

2.1 CONCEPT OF PERFORMANCE EFFECTIVENESS

Performance effectiveness has been defined in different ways.

Hitt *et al.* (1983) wrote that effectiveness refers to how well an organization reaches its objective over a period of time.

Reddin (1987) observed that effectiveness is multi-dimensional and is the extent to which managers achieve the output requirements of their position. He further stated that it is output, not input.

Ghosh *et al.* (1988) gave the meaning of effectiveness as the extent to which an action or activity achieves its stated purpose.

Mohan (1988) stated that effectiveness is the measure of extent of contribution which an activity makes to the overall endeavour for the achievement of the pre-determined goal.

Babukumari *et al.* (1998) defined performance as the pragmatic results that the organizations are able to measure objectively.

Drucker (1999) stated that effective executive knows what to do, how to do it and above all gets it done. Effectiveness is not achieved from principles but from successful execution practices. He further stated that increasing effectiveness may well be the only area where we can hope significantly to raise the level of the workers performance achievement.

Pareek and Rao (2004) stated that performance of a person working in an organization depends on his own potential effectiveness as a person, his technical competence, his managerial experience, etc., as well as, on the way, which he performs in the organization, is designed.

Rao (2004) stated that performance is a result of both ability and effort. A highly capable individual may need to put in only marginal effort to give high performance: whereas another individual with low ability may need to put in a lot of effort to produce even an average level of output.

On perusal of the foregoing definitions, performance effectiveness of teacher means the degree to which a teacher does right things in a creative way to achieve the intended and desired results through optimal utilization of resources in teaching, research and extension education.

2.2 EXTENT OF PERFORMANCE EFFECTIVENESS

In the present study, the extent of performance effectiveness of the teachers is visualized in the triple functions namely, teaching, research and extension education.

2.2.1 Teaching

Teaching is the main design that shines through the sky and earth. In India a teacher is not merely a conveyer of instruction. He / She is a symbol of an ancient and noble calling, a model on which one can shape one's life – a guru. The teachers should have some attributes which enhance teaching. In order to identify the items under teaching, it became essential to analyse the element which make these items. On this basis, the literature reviewed is presented below.

Review of studies with respect to teaching

Sl. No.	Year	Author (s)	Characteristics/ Attributes
1.	1990	Dahama and Bhatnagar	Knowledge of subject matter Teaching with enthusiasm Student- centered teaching Use of different teaching methods Encourages and motivates students.
2.	1990	Duke	Subject matter knowledge Instructional skills Systematic evaluation of students. Proficiency in classroom management Effective time management

3.	1990	Young	<p>Knowledge of student matter</p> <p>A caring and compassionate personality</p> <p>Enthusiasm</p> <p>Sense of humour</p>
4.	1992	Larsen	<p>Classroom management</p> <p>Classroom organization</p>
5.	1995	Luft and Thompson	<p>Enthusiasm for teaching</p> <p>Commitment for teaching</p> <p>Good role model for students.</p>
6.	1999	Lockaby and Vaughn	<p>Ability to identify students needs</p> <p>Recognition of students for their achievements.</p>
7.	2000	McLean and Camp	<p>Knowledge on subject matter</p> <p>Gives a variety of examples.</p> <p>Well structured lesson plan.</p>
8.	2001	Kannaiyan	<p>Clarity of expression</p> <p>Use of teaching aids</p> <p>Effective utilization of time</p> <p>Motivating students.</p> <p>Discussion in class.</p> <p>Impartial evaluation of students</p> <p>Summarization of previous class lectures.</p>
9.	2001	Robinson	<p>Communicative ability</p> <p>Personal integrity</p> <p>Effectively motivate students</p> <p>Excellent knowledge</p>

10.	2004	Robert and Dyer	Cares for students Effectively plans for instruction Excellent knowledge of subject matter Uses a variety of teaching aids.
11.	2005	KAU	Publish text books Prepare laboratory manual Update and revise course content. Effective evaluation of student's progress, Involvement in student advisory services.
12.	2005	Parasuram	Providing knowledge to students Processing the information. Communicative ability
13.	2005	Ramanujam	Knowledge of subject matter Excellent communication skills Motivate the students Committed to his/her profession.
14.	2006	Chellathurai and Padmavathy	Excellent knowledge Teaching with enthusiasm Uses of teaching aids Promotes innovation.

It shows very clearly that the characteristics such as knowledge on subject matter, communicative ability, commitment, motivating students, unbiased evaluation, and classroom management are mainly reflecting the teaching performance effectiveness of teachers.

2.2.2 Research

Research today, not only has become important but has become the driving force in the process of self-reliance of all cutting edge technologies. Research brings transformation and development and also enhances the quality of education. The extent of research work undertaken by the university becomes a measure of judgement and representation for that university.

The following authors focus the important functions of a researcher

The National Commission of Teachers-I (1983), with reference to primary and secondary stage teachers, mentioned certain activities which will help in professional growth of teachers. Some of them are organize seminars and symposia, form academic council, publication of a monthly paper of good standard, conduct research work, organise special seminars and meetings to enforce the code of conduct among and its members.

According to Satapathy and Choudhary (1990) the parameters of scientific productivity are, production of specific technology, publication of result in local newspaper, number of projects completed, presentation of scientific papers at various levels, publication of research papers at state/national/international level and reference of research work by other scientists.

Sabarathnam (1992) observed that number of projects completed, publication of research activities, recognition of work by way of reward/ award, writing of technical books and participating in scientific seminars, conferences etc. are the most important functions of the researcher.

Ladebo (2004) found out that effective commitment, work centrality and emotional stability are the important functions of the researchers.

Tomlinson (2004) pointed out that professionalism, thinking, planning and setting expectations, leading and team working are the important characters of researchers.

As stated in the “Criteria for the assessment of workload of institutions under the Kerala Agricultural University (2005)”, the important functions that should be performed by the teacher as a researcher are, actively involve in the university research activities as a team leader / member, conceive and prepare research projects, prepare scientific articles for publication, participating and presenting scientific papers at various levels.

From the above mentioned literature it could be inferred that ability to lead research activities, involvement in externally aided projects, publishing research articles and involvement in institutional research projects are reflecting the research performance effectiveness of the teachers.

2.2.3 Extension education

In addition to teaching and research programmes, extension activities are also performed by the agricultural universities throughout the country in order to bridge the gap between the scientists and the farming community. This is a major difference in the role of the agricultural university from that of conventional universities.

The following authors focus the important functions of an extension worker.

Reddy (1987) listed the major roles of extension workers as catalyst, teach people to help themselves, teach how to think, help people to determine their own needs, flexibility in objectives and sound knowledge with ability and

enthusiasm to teach people, love and sympathy for people, work in harmony with the culture and help people to work together in groups.

According to Dahama and Bhatnagar (1990) the extension worker has to do thirteen major roles such as (a) acquaint himself with all the families in the village and learn their problems, needs and capabilities; (b) use as many methods of extension as are necessary; (c) give villagers every chance to work in cooperative group action; (d) improve the village life and surroundings and create the conditions for farmers to become active members of our republic, socially, economically and politically; (e) bring to our rural masses the basic knowledge of improved methods of Agricultural, Animal husbandry, Home management etc.; (f) help villagers in crop and livestock raising so that their income is increased. (g) help the rural masses to appreciate the opportunities, duties and privileges of living in an organized way in the villages; (h) raise the whole standard of rural life by promoting social, cultural and intellectual activities in the villages; (i) bring to the rural people the knowledge of conditions prevailing in the progressive countries; (j) make the villagers intelligent, self reliant and independent citizens who will love their homes and their country; (k) take the problems of the villagers to scientific institutions for solution; (l) change the attitudes, knowledge and skill of the villagers and bring about a psychological change in the minds of the village people to prepare them to adopt new ways of life.

Reddy (1990) identified seven job dimensions such as planning, education, supply and services, supervision, coordination, office work and evaluation.

Nehru (1993) identified the functions such as planning, coordination, human relation, office management, professional competency, farmer development, information management, direction and supervision.

Anilkumar *et al.* (2003) found out the roles performed by the extension personnel such as making field visit, studying agricultural problems and suggest solutions, organize and conduct training camps, meetings group discussions, method demonstrations and supervise field staff on latest agricultural techniques.

As stated in the “Criteria for the assessment of workload of institutions under the Kerala Agricultural University (2005)”, the important functions that should be performed by the teacher, as an extension worker are: He / She has to maintain close contact with farmers and scientists, ability to organize trainings, conduct field visits, exhibitions, demonstrations, take initiative to provide information to the farmers, acting as resource person in the TOT process, take effort to utilize maximum possible media to disseminate information to the farmers.

It shows very clearly that maintaining rapport with farmers, listening to the views of farmers, acting as a resource person, making field visit to solve problems of farmers, publishing extension literature to provide information to the farmers/extension personnel and organizing trainings are some of the functions that reflect the performance effectiveness of teachers.

2.3 FACTORS INFLUENCING THE PERFORMANCE EFFECTIVENESS

Employee’s behaviour and performance are only partially determined by ability. The work atmosphere, the psychological environment in the organization where people live and work is one of the important factors in influencing employee’s performance effectiveness. So factors are divided into two.

2.3.1 At Organizational level

2.3.2 At Individual level

2.3.1 At Organizational Level

Sl. No.	Year	Author (s)	Factors
1.	1990	Satapathy and Choudhary	Recognition of work Status and position Cooperation among colleagues Freedom to work Scope to prove merit Job security Opportunity for self growth
2.	1992	Cano and Miller	Policy and administration Salary Supervision Interpersonal relationship Working conditions
3.	1994	Kanungo and Mendonca	Participative management at all levels of the organization
4.	1996	Geetha	Employment condition Social relationship Fair treatment Pay
5.	1996	George	Work climate Management style Communication patterns Morale
6.	1997	Kumar	Recognition of work Freedom of expression Job security Power and status in society Work itself
7.	1998	Lawler	Reward system Superior-subordinate relationship Job enrichment Pay Work climate

8.	1999	Castillo <i>et al.</i>	The work itself Working conditions Salary structure Policy and administration
9.	1999	Das and Bishnoi	Comfortable working condition Job security Good income Affording opportunities Job status and prestige
10.	2001	Veerasamy et al.	Working atmosphere Awarding of rewards Fair and impartial administration Interpersonal relationship
11.	2003	Sharma and Kaur	Rewards and recognition Salary adequacy Social status Management policies
12.	2006	Rezvanfar and Vaisy	Psychological factor Salary structure Job diversity

2.3.2 At Individual Level

Sl. No.	Year	Author (s)	Factors
1.	1988	Pittman and Orthner	Job satisfaction Commitment Influence of family
2.	1989	Pajak and Blasé	Job satisfaction Commitment Attitude towards job

3.	1991	Bruening and Hoover	Job satisfaction Sound health Influence of family and friends Experiences
4.	1991	Pestonjee	Attainment of rewards Amount of effort Role perception
5.	1992	Cano and Miller	Achievement motivation Advancement Job satisfaction
6.	1992	Mertler	Higher levels of motivation Job satisfaction
7	1994	Chattopadhyay <i>et al.</i>	Commitment Job satisfaction Job involvement
8.	1994	Lawler	Job satisfaction Positive thinking Job commitment
9.	1997	Kumar	Personal qualities Educational qualification Professional training
10.	1999	Das and Bishnoi	Occupational satisfaction Educational qualification Professional experiences
11.	2003	Anilkumar <i>et al.</i>	Experiences Job perception Attitudes towards job

12.	2003	Halakatti and Sundaraswamy	Higher levels of motivation Greater commitment Self-satisfaction
13.	2004	Venkatanarayan	Attitudes Commitment Punctuality Accountability
14.	2006	Rezvanfar and Vaisy	Educational level Commitment Job satisfaction

2.4 PROFILE CHARACTERISTICS OF TEACHERS

In the present study the term profile characters has reference to variables such as sex, educational status, professional experience, trainings undergone, number of seminars/symposia attended, number of publications, research contributions and research guidance.

2.4.1 Sex

Bensamuel (1993) pointed out that the female student out numbered the male student in the undergraduate agriculture course at TNAU, Madurai.

Rexlin (1993) observed that there are more males than females enrolled in horticultural colleges.

Abijith (2002) observed that the female students out numbered male students in undergraduate course at TNAU, Coimbatore. The male female ratio observed were (35:65).

Dhas (2006) pointed out that the female graduates outnumbered male graduates in agriculture course at KAU, Vellayani.

2.4.2 Designation

In the study reported by Sharma and Kaur (2003) 56 % of the respondents were Assistant Professors.

Kumar (1997) found that majority of the respondent teachers in his study were Associate Professors.

2.4.3 Educational status

Kumar (1997) revealed that most of the teachers (73.91%) were doctorates in their field of specialization.

Babykumari *et al.* (1998) revealed that educational qualification had non-significant association with job performance of farm scientists.

Halakatti and Sundaraswamy (2003) found that educational background of the respondent did not show any significant relationship with organizational commitment of the Agricultural Assistants.

Rezvanfar and Vaisy (2006) found that educational level had positive and significant relationship with job satisfaction.

2.4.4 Professional experience

The following table shows the relationship of selected respondents with the dependent variables such as productivity, performance, efficiency etc.

Sl. No.	Year	Author (s)	Nature of relationships	Respondents	Dependent variable
1.	1990	Satapathy and Choudhary	Positive + significant	Farm Scientist	Scientific Productivity
2.	1992	Singh and Singh	Non significant	Women Scientist	Scientific Productivity
3.	1993	Ravichandran	Positive + significant	Agricultural Officers	Job performance
4.	1996	Geetha	Positive	Teachers	Job Satisfaction
5.	1997	Kumar	Positive	Teachers	Efficiency
6.	1998	BabyKumari <i>et al.</i>	Non-significant	Farm Scientist	Job performance
7.	1999	Das and Bishnoi	Negative	Employed Women	Job Satisfaction
8.	2001	Veerasamy <i>et al.</i>	Non-significant	Farm Scientist	Job Satisfaction
9.	2003	Anilkumar <i>et al.</i>	Positive	Agricultural Officers	Job performance

2.4.5 Trainings undergone

Kumar (1997) revealed that trainings undergone had high significant and positive correlation with efficiency of teachers.

Babykumari *et al.* (1998) found that trainings undergone had non significant correlation with job performance of farm scientists.

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

2.4.6 Number of seminars / symposia attended

Satapathy and Choudhary (1990), in their study at the Orissa University of Agriculture and Technology, observed that participation in professional seminars was closely related with output of the scientists.

2.4.7 Number of publications

Sabarathnam (1992) reported that the number of publications was an indicator of scientist productivity.

2.4.8 Research contribution

Satapathy and Choudhary (1990) found that number of projects completed was one of the parameters for measurement of scientific productivity of farm scientists.

Sabarathnam (1992) observed that the number of research projects a scientist had at a time showed negative correlation with scientific man power efficiency in the ICAR research system.

2.4.9 Research guidance

Satapathy and Choudhary (1990) observed that guiding of Ph.D. and M.Sc scholars as one of the parameters for measurement of scientific productivity of farm scientists.

2.5 CONSTRAINTS

According to Webster's third new international dictionary (1971), constraint is to check especially from free or easy indication or expression or to force structure, restriction or limitation imposed by nature, oneself or circumstances or exigencies.

The following authors focused the problems faced by the employees in the organization which affects their performance effectiveness:

Asiabaka and Bamisile (1991) while assessing the performance level of agricultural extension agents in Lagos State Agricultural Development Project found that lack of transportation, lack of incentives and untimely distribution of inputs to farmers, lack of office space, problem of payment of travelling allowance, lack of promotions were the major constraints influencing their performance level.

Nelson (1992) reported that lack of clerical support in office work was the most important constraint perceived by Agricultural Officers in the effective functioning of Krishi Bhavan followed by lack of conveyance facilities, lack of funds to meet travelling expenses and lack of office facilities in that order.

Nehru (1993) reported that more number of programmes, lack of sufficient knowledge about programmes of sister departments; inadequate office facilities; lack of skill oriented trainings on visible technology were the major constraints perceived by the agricultural officers.

According to ODI (1994) the main problems encountered with the functioning of organizations were insufficient academic training staff, difficulty in understanding the research activities which respond to production needs and lack of experience in interdisciplinary work.

Prasad *et al.* (1996) found that attitudinal problems, arising from the socio-economic gap between researchers and extension personnel also contribute to the research-extension gap.

Thomas (1998) observed that inadequate financial assistance, non availability of quality planting material, political interference and inadequate training were the major problems in implementing watershed development programme.

Ashaletha *et al.* (1999) observed that frequent transfer, too much workload, lack of promotion opportunities, inadequate salary, lack of incentives and rewards for good work, lack of training were the major constraints experienced by agricultural assistants in the effective performance of their roles.

Jayalekshmi and Kumar (2000) found that inadequate research facilities, lack of opportunity for personal growth, lack of incentives and reward for good work, lack of periodic evaluation of work, role of students in the development activities is less, No stress coping mechanisms in the university were the major constraints experienced by the scientist at college of agriculture, Vellayani. Fifty per cent of the scientists agreed with the statements mentioned above.

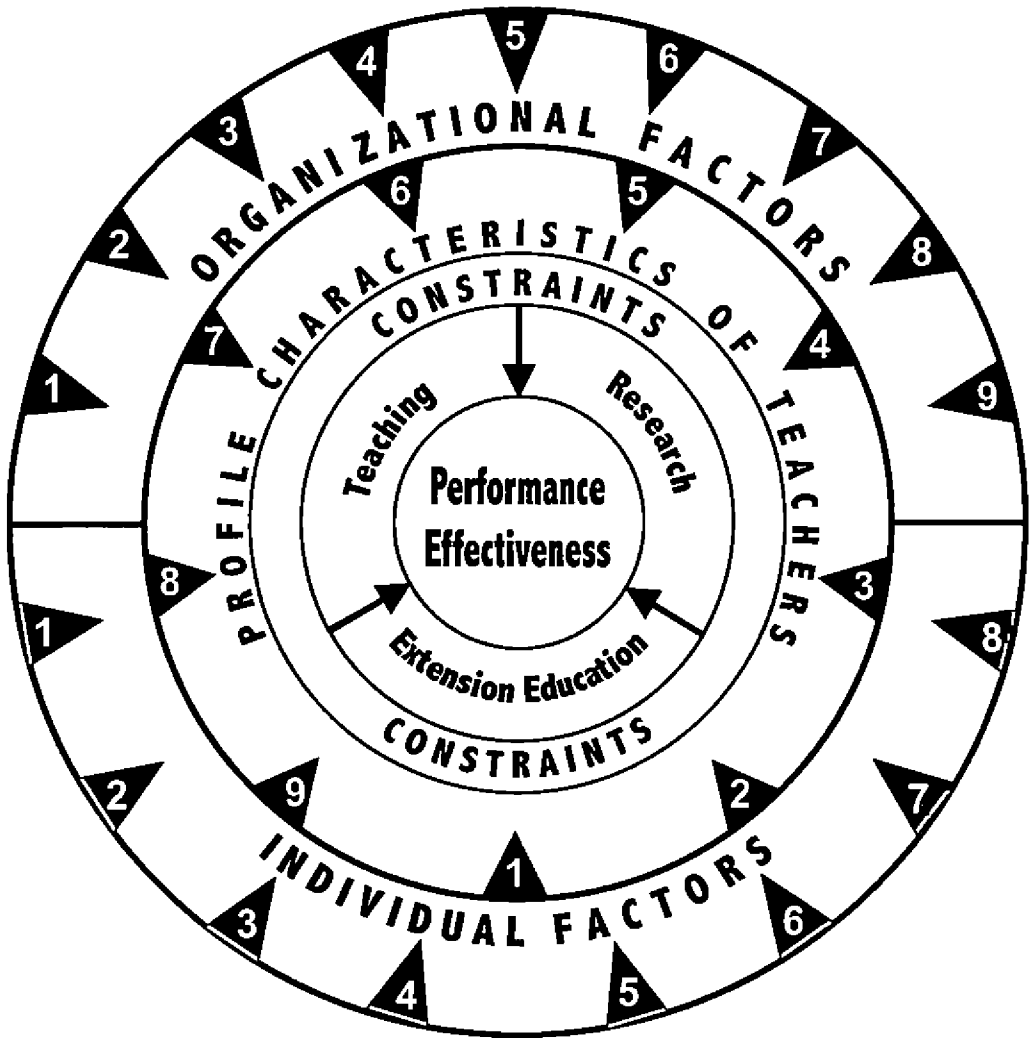
Anilkumar *et al.* (2003) found that misunderstanding between Agricultural Officers and superiors, lack of interest and response on the part of farmers, more paper work than extension / development activities, political interferences in day-to-day activities, no time for extension education activities were major constraints faced by agricultural officers in the effective performance of duties.

Majhi and De (2004) observed that lack of mobility, no incentive for good work, lack of promotional avenues, scanty guidance by superiors and belated disbursement of salary were the major constraints that severely hinder the Fishery Extension Officers job performance.

Prasad and Singh (2004) reported that lack of authority for understanding activities, poor communication facilities, inadequate financial resources and lack of adequate rewards and incentives for linkage activities were the major constraints that affects the effective linkage between research-education and extension.

From the above mentioned literature, it could be inferred that lack of incentives and rewards for good work, lack of promotional avenues, political interferences in day-to-day activities, inadequate research facilities, lack of

Fig. 1. Conceptual framework of the study



Profile characters

1. Sex
2. Designation
3. Educational status
4. Professional experience
5. Trainings undergone
6. Number of seminars/ symposia attended
7. Number of publications
8. Research contributions
9. Research guidance

Organizational factors

1. Recognition and reward
2. Fair and impartial administration
3. Facilities and resources
4. Job security
5. Scope for job enrichment
6. Job status
7. Salary structure
8. Freedom for expression
9. Career development opportunity

Individual factors

1. Job satisfaction
2. Job involvement
3. Self confidence
4. Job perception
5. Achievement motivation
6. Leadership
7. Positive thinking
8. Sociability

opportunity for personal growth, too much workload, inadequate salary are some of the important constraints which affect the performance effectiveness of employees.

2.6 CONCEPTUAL FRAMEWORK OF THE STUDY

The conceptual framework of the study, developed based on the review of literature is diagrammatically represented in Fig.1.

The model consists of five concentric circles showing both independent and dependent variables. The innermost circle represents the dependent variable, performance effectiveness. The second circle partitioned into three which subsumes the performance effectiveness components such as teaching, research and extension education considered for the study. The third circle represents the constraints, which affect the performance effectiveness of teachers. The fourth circle composed of the profile characteristics of teachers, such as sex, designation, educational status, professional experience, trainings undergone, number of seminars/symposia attended, number of publications, research contribution and research guidance. The fifth circle is partitioned into two segments representing the 17 independent variables encompassing the organizational level and individual level factors influencing the performance effectiveness of teachers. The two segments are connected to the performance effectiveness of teachers to indicate that they would influence it.

METHODOLOGY

3. METHODOLOGY

In this chapter, the research methods and procedures employed in this study are presented under the following heads:

- 3.1 Location of the study
- 3.2 Selection of sample
- 3.3 Delineation of factors influencing the performance effectiveness
- 3.4 Operationalisation and measurement of the dependent variable :
Performance effectiveness
- 3.5 Operationalisation and measurement of profile characteristics
- 3.6 Identification of constraints
- 3.7 Data collection procedure
- 3.8 Statistical tools used for the study

3.1 LOCATION OF THE STUDY

The study was undertaken in all the three agricultural colleges of Kerala Agricultural University viz., College of Agriculture, Vellayani; College of Horticulture, Vellanikkara and College of Agriculture, Padannakkad.

3.2 SELECTION OF SAMPLE

A list of teachers who have offered courses for the under graduate students during the academic year of 2005-2006 were collected from the three colleges and found that 35 teachers from the College of Agriculture, Vellayani; 42 teachers from the College of Horticulture, Vellanikkara and 20 teachers from the College of Agriculture, Padannakkad, were offering courses for the undergraduate students. By using probability proportionality size sampling, 22 respondents from the College of Agriculture, Vellayani, 26 respondents from the College of Horticulture, Vellanikkara and 12 respondents from the College of Agriculture, Padannakkad were selected randomly for the study. Finally, the sample size of the study was fixed as sixty.

3.3 DELINEATION OF FACTORS INFLUENCING THE PERFORMANCE EFFECTIVENESS

With regard to the independent variables, a list of variables seemingly related to the performance effectiveness of teachers was prepared based on the review of literature. With the help of the experts the factors were broadly divided into two categories such as organizational level and individual level. Then the list of variables was sent to 50 judges comprising mostly of teachers working in the Agricultural Universities. They were asked to examine the variables critically and to rate the relevancy of each variables on a five point continuum ranging from most relevant, more relevant, relevant, less relevant and least relevant with weightages of 5, 4, 3, 2 and 1 respectively (Appendix I).

Out of the 50 judges, only 40 had responded. The final variables were selected based on the mean relevancy score, which was obtained by summing up the weightages of variables and dividing by the number of judges who responded. The variables with their mean relevancy score are presented in Appendix III. The variables having mean relevancy score and above were selected for the study. Accordingly, nine variables under organizational level and eight variables under individual level were selected and are presented below.

Factors at Organizational level

1. Recognition and reward
2. Fair and impartial administration
3. Facilities and resources
4. Job security
5. Scope for job enrichment
6. Job status
7. Salary structure
8. Freedom for expression
9. Career development opportunity

Factors at Individual level

1. Job satisfaction
2. Job involvement
3. Self-confidence
4. Job perception
5. Achievement motivation
6. Positive thinking
7. Leadership
8. Sociability

The selected factors that form the independent variables were rated on a ten-point continuum ranging from 1 to 10. Here the score 'one' indicates the least influencing factor and the score 'ten' indicates the most influencing factor. In this study, the selected teachers who have offered courses for the undergraduate students during the academic year of 2005-2006 were asked to indicate their response as given in the questionnaire. Out of the sixty respondents, only 57 had responded, ie., 21 respondents from the College of Agriculture, Vellayani, 24 respondents from the College of Horticulture, Vellanikkara and 12 respondents from the College of Agriculture, Padannakkad.

3.4 OPERATIONALIZATION AND MEASUREMENT OF THE DEPENDENT VARIABLE: PERFORMANCE EFFECTIVENESS

The very objective of the study necessitated the selection of the dependent variable; Performance effectiveness.

Keeping in view the review of literature and the specific objectives of the present investigation, performance effectiveness, the dependent variable was operationally defined as the degree to which a teacher does right things in a creative way to achieve the intended and desired results through optimal utilization of resources in teaching, research and extension education.

For the present study performance effectiveness was measured by using a scale specifically developed and standardized for the purpose.

3.4.1 Selection of the items to measure performance effectiveness

Based on the available literature on performance effectiveness and after extensive discussions with experts, a comprehensive and exhaustive list of items associated with measuring performance effectiveness of the teachers was prepared. This list was then subjected to a thorough sifting and sieving based on discussions with experts. Then the items were divided under three components viz; teaching, research and extension education. After this, the list consisting of 40 items (19 items under teaching; 11 items under research and 10 items under extension education) was sent to 50 judges comprising mostly of teachers/scientists working in the Kerala Agricultural University. They were asked to examine the items critically and also to include additional items if found necessary. The judges were requested to rate the relevancy of each item on a five point continuum ranging from most relevant, more relevant, relevant, less relevant and least relevant with weightages of 5,4,3,2,and 1 respectively (Appendix II). Out of the 50 judges, only 40 had responded. The selection of the final items to measure performance effectiveness of teachers in the Kerala Agricultural

University was based on the mean relevancy score which was obtained by summing up the weightages obtained by an item and dividing by the number of judges who responded. The items with their mean relevancy scores are presented in Appendix III. The items having mean relevancy score and above were selected for the scale to measure performance effectiveness. Accordingly, ten items under teaching, five items under research and six items under extension education were selected. Thus the final scale consisted of twenty one items and are presented below.

Items under teaching

1. Knowledge on subject matter
2. Subject matter/ content coverage
3. Commitment to profession
4. Communicative ability
5. Empathy towards students
6. Classroom management
7. Clarity of expression
8. Skills in teaching techniques
9. Personal integrity
10. Ability to motivate students

Items under research

1. Ability to lead research activities
2. Involvement in externally aided projects
3. Publishing research articles
4. Involvement in institutional research projects
5. Willingness to acquire more skills in the field of specialization

Items under extension education

1. Maintaining rapport with farmers
2. Listen to the views of farmers
3. Act as resource person
4. Make field visit to solve problems of farmers
5. Publish extension literature to provide information to the farmers/extension personnel
6. Organize trainings.

3.4.2 Item analysis

Item analysis is a general term for procedures designed to assess the usefulness of a test item. In the present study the index used for the selection of items was discriminative index, which refers to the power of an item to discriminate the low performed from the high performed category of teachers and it was obtained by using the formula

$$t = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\Sigma(X_H - \bar{X}_H)^2 + \Sigma(X_L - \bar{X}_L)^2}{n(n-1)}}$$

where,

\bar{X}_H = the mean score on a given item for the higher group

\bar{X}_L = the mean score on a given item for the lower group

n = number of individuals in each of the criterion

The 't' value obtained was highly significant in the case of all the 21 items.

3.4.3 Reliability

It refers to the extent to which repeated measurement produces the same results. In the present study, the split half method was employed. The scale was administered to 30 non-sample respondents. The scale was divided into two halves based on odd and even numbered statements and the two sets of scores obtained from the same respondents were correlated. The Spearman-Brown prophecy formula was used to calculate reliability coefficient which was 0.86 indicating excellent reliability for the performance effectiveness scale.

3.4.4 Validity

Care was taken to include the items covering the universe of content with respect to the performance effectiveness thus satisfying the validity.

3.4.5 Administering of the performance effectiveness scale

Stiggins and Duke (1990) suggested that departmental heads, peers, central authority supervisor, outside consultants and students could make worthwhile contribution in the evaluation of teachers.

Medley and Shannon (1994) pointed out that the teachers performance effectiveness can be arrived through observational schedules, rating scales, and student achievement tests.

Dunkin (1997) suggested that self-monitoring, classroom observation, student achievement data, outside observer and peer group members can be involved in the evaluation of teacher's performance.

Mckenne (2000) stated that the major performance appraisal techniques used in the evaluation of individual performance of teachers are rating scales, behaviors observation scales, comparative evaluation, which are to be carried out by the self, superior, peers and subordinates.

Kannaiyan (2001) observed that the evaluation of teachers by students is basically to know the feedback from the students based on their need and requirements. He further stated that students are the best judges for evaluating teacher's performance.

On perusal of the foregoing literature, the performance effectiveness of teachers was measured for the triple functions of teaching, research and extension education by involving students, peer group members and superior officers respectively.

In the present investigation the following procedure was used for measuring the performance effectiveness of teachers with respect to teaching research and extension education.

In the case of teaching, for example, the teacher A (respondent) has offered a course, Ag.Ext.304 during the Ist semester of 2005-2006 for the third year, B.Sc. (Ag.) students. The investigator, after obtaining proper permission from the academic section, interacted with all the students who have undergone the course, Ag.Ext.304 during the Ist semester, in the class room and explained the purpose of the study and the intended scientific output through the study. Then the questionnaires were distributed among the students. All the available students in the class had responded and returned to the investigator. In this way, sixty teachers were rated by the students from the respective colleges on a ten point continuum ranging from one to ten. After that average score was obtained by summing up the score given by the students (judges) for an item and dividing by number of students (judges) who responded. The possible score ranges from 10 to 100.

In the case of research, for example, the teacher A (respondent) was rated by the fellow teachers working in the department on a ten point continuum ranging from one to ten and then the average score was obtained by summing

up the score given by the fellow teachers (judges) for an item and dividing by the number of judges who responded. The possible score ranges from 5 to 50.

In the case of extension education, the immediate superior officers, for example Head of the departments were involved in rating the performance effectiveness of teachers on a ten point continuum ranging from one to ten and then the average score was obtained by summing up the score given by the immediate superior officers (judges) for an items and dividing by the number of judges who responded. The possible score ranges from 6 to 60.

3.5 OPERATIONALIZATION AND MEASUREMENT OF PROFILE CHARACTERS

Based on the review of literature and discussion with experts, the profile characters such as sex, designation, educational status, professional experience, trainings undergone, number of seminars/symposia attended, number of publications, research contribution and research guidance are selected for the study. Out of the sixty respondents, only 57 had responded.

3.5.1 Sex

It refers to the male and female sex with respect to role assigned in the society.

3.5.2 Designation

It refers to the official status of the respondent at the time of this investigation.

3.5.3 Educational status

It refers to the educational qualification acquired by the respondent. The different educational levels of the respondents were scored as per the procedure followed by Nehru (1993) with slight modification.

Level of education	Score
M.Sc.	One
Ph.D.	Two
Others	Three

3.5.4 Professional experience

It refers to the total number of years completed in the Kerala Agricultural University/ Agricultural Research Institution at the time of this investigation.

3.5.5 Trainings undergone

It refers to the number of trainings undergone by the respondents in the field of specialization.

3.5.6 Number of seminars / symposia attended

It refers to the actual number of seminars/symposium attended by the respondents at the time of this investigation.

3.5.7 Number of publications

It refers to the actual number of publications such as popular articles, research articles, books, manuals etc. by the respondents at the time of this investigation.

3.5.8 Research contribution

It refers to the actual number of projects completed/ongoing by the respondents as Principal Investigator/Project Associate at the time of this investigation.

3.6 IDENTIFICATION OF CONSTRAINTS

Constraint analysis is one of the important areas of research in extension. Before arriving at any strategy, the constraints if any are to be identified for finding solutions. In the present study constraints are operationalized as the difficulties or problems experienced by the respondents while being associated with the organization.

Based on review of literature and discussion with teachers working in the Kerala Agricultural University, 31 constraints were identified. The list of these constraints was administered to 30 non-sample respondents. They were asked to rate each of the constraint according to the relative importance felt by them on a five point continuum ranging from most relevant, more relevant, relevant, less relevant and least relevant with weightages of 5, 4, 3, 2, and 1 respectively. The final constraints were selected based on the mean relevancy score. The constraints having mean relevancy score and above were selected for the study. Accordingly 19 constraints were selected for the study.

In the study, the selected respondents who have offered courses for the undergraduate students during the academic year 2005-2006 were asked to rate the constraints on a ten-point continuum ranging from 1 to 10 according to the relevancy in the KAU context and importance felt by them. Then for each constraint, weighted average was found out by using constraint index. The formula used was:

$$CI = \frac{\sum_{j=1}^m W_{ij} X_{ij}}{\sum_{j=1}^m W_{ij}}$$

where,

W_{ij} = the weight (importance) obtained for the i^{th} variable for a particular individual j .

X_{ij} = the constraint score given by the respondent corresponding to the j^{th} variable

m = number of individuals

The constraint with higher score value was considered as the most serious one followed by the others in the decreasing order.

3.7 DATA COLLECTION PROCEDURE

The questionnaire including all the aspects mentioned above was prepared separately for students, peer group members, superior officers and respondents. The questionnaires were given directly to the students, peer group members, superior officers and the respondents by the researcher individually. The responses were collected directly from the respondents by the researcher.

3.8 STATISTICAL TOOLS USED IN THE STUDY

3.8.1 Mean

Respondents were categorized into low group, medium group and high group on the basis of mean score obtained for the variables.

3.8.2 Percentage analysis

To make comparisons, percentage analysis was done.

3.8.3 Correlation Analysis

Correlation coefficient is a measure of the association between two variables. The correlation coefficient was worked out to measure the relationship between the dependent and independent variables.

3.8.4 Multiple regression analysis

This was done to find out the contribution of organizational and individual factors in the variation in performance effectiveness of teachers.

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

The results of the study are presented in this chapter under the following heads.

- 4.1 Performance effectiveness of teachers
- 4.2 Factors influencing the performance effectiveness of teachers
- 4.3 Distribution of the respondents based on the profile characteristics
- 4.4 Relationship of profile characteristics with the performance effectiveness index
- 4.5 Constraints as perceived by the teachers
- 4.6 Suggestions for enhancing the performance effectiveness of teachers
- 4.7 Empirical model of the study

4.1 PERFORMANCE EFFECTIVENESS OF TEACHERS

4.1.1 Overall performance effectiveness of teachers

The results of the study relating to the overall performance effectiveness of teachers in the Kerala Agricultural University are given in Table 1. The possible score was from 21 to 210; the mean score obtained was 169.48. It was noted that the respondents were performing better. The components considered for the study were teaching, research and extension education.

The data furnished on the Table 1 represents the performance effectiveness of teachers with respect to teaching, research, extension education and overall

performance effectiveness. With regard to teaching, the mean score obtained was 80.87. The possible score ranges from 10 to 100. For research, the mean score obtained was 41.12; with the possible score ranges from 5 to 50. With respect to extension education, the possible score ranges from 6 to 60 and the mean score obtained was 47.49.

Table 1. Overall performance effectiveness of teachers

(n = 57)

Sl. No.	Description	Score range		Mean Score	CV	Possible score	
		Min	Max			Min	Max
I	Performance effectiveness	128	198	169.48 (80.7 %)	11.51	21	210
II	Components						
	a. Teaching	75	93	80.87 (80.87 %)	11.41	10	100
	b. Research	37	48	41.12 (82.24 %)	12.80	5	50
	c. Extension Education	43	58	47.49 (79.15 %)	16.84	6	60

It indicates that the overall performance effectiveness of teachers was better (80.7 %). It may be due to the selection of the right candidate by the university. In the case of components, such as teaching, research and extension education, the mean score was ranging from 82.24 per cent to 79.15 per cent in the descending order. It shows very clearly that the selected respondents were performing their job very well in all the three dimensions and fundamentally interested in research, teaching and extension education activities. The other reason may be due to the fact that majority of the teachers were highly qualified, having rich experience in teaching and possessing positive attitude towards teaching, research and extension education.

4.1.2 Distribution of the teachers under high, medium and low performance effectiveness groups

The data furnished on Table 2 revealed the distribution of respondents under high, medium and low performance effectiveness groups.

Regarding the overall performance effectiveness of teacher, all the respondents were in the high and medium category. More than 85 per cent of the respondents belong to the high category and only 14 per cent of the respondents belong to the medium category. It is very interesting to note that no one belongs to the low category.

Table 2. Distribution of the teachers under high, medium and low performance effectiveness group

(n=57)

Description	Category	Frequency	Percentage
Overall performance effectiveness	Upto 70 (Low)	--	--
	71 – 140 (Medium)	8	14.04
	141-210 (High)	49	85.96
Components			
a. Teaching	Upto 33 (Low)	--	--
	34 – 67 (Medium)	5	8.77
	> 67 (High)	52	91.23
b. Research	Upto 17 (Low)	--	--
	18 – 34 (Medium)	6	10.53
	> 34 (High)	51	89.47
c. Extension education	Upto 20 (Low)	--	--
	21 – 40 (Medium)	9	15.79
	> 40 (High)	48	84.21

Analyzing the Table 2 it is evident that in all the three components, their performance effectiveness level were also ranging from 91 per cent to 84 per cent in the descending order. It shows very clearly that as a teacher, they were performing excellently ie., more than 90 per cent followed by research (89 %). In the case of extension education, a nominal reduction has been noticed (84 %), that too a better score. It indicates that the respondents are giving due weightages to the triple functions, teaching, research and extension education.

4.2 FACTORS INFLUENCING THE PERFORMANCE EFFECTIVENESS OF TEACHERS

4.2.1 At Organizational level

Table 3 reveals that the organizational factors such as recognition and reward, fair and impartial administration, job security, scope for job enrichment, job status, salary structure, freedom for expression and career development opportunity had a highly significant and positive correlation with teaching component where as facilities and resources factor had positive but non-significant correlation. Like wise with research also, except facilities and resources, all the other organizational factors had highly significant and positive correlation. With respect to extension education, fair and impartial administration and facilities and resources were non-significant but positively correlated. The overall performance effectiveness of teachers were seen influenced by all the organizational factors except facilities and resources. From this it could be inferred that mostly all the organizational factors selected after screening are very relevant and directly associated with the performance effectiveness of teachers (Fig. 2).

Fig. 2. Diagram showing correlation of Organizational factors with performance effectiveness

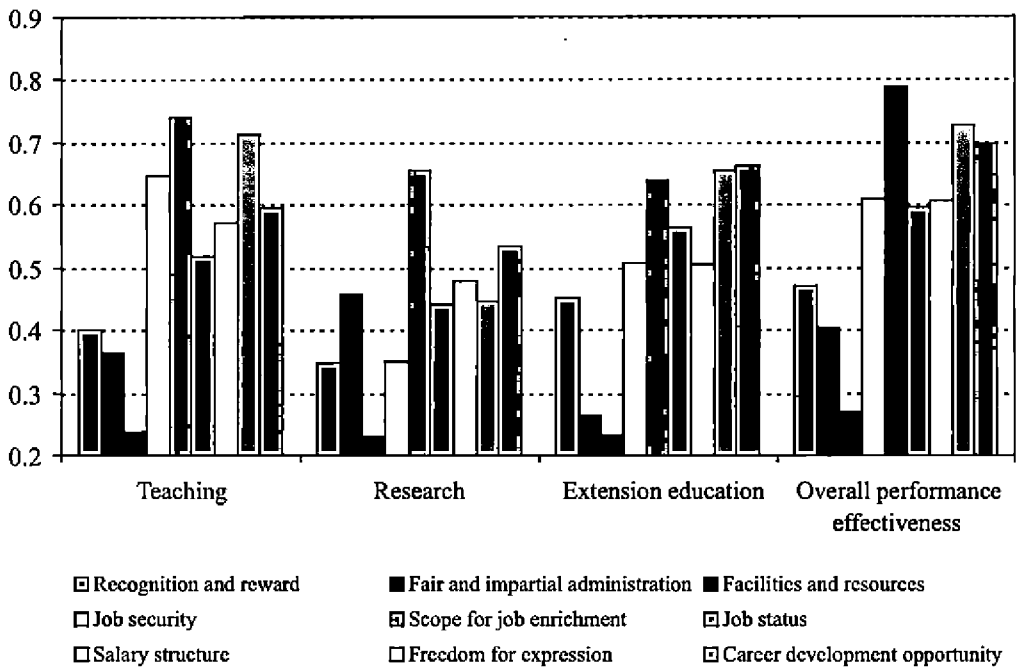


Table 3. Correlation of the organizational factors with teaching, research and extension education and overall performance effectiveness of teachers

(n = 57)

Sl. No.	Organizational factors	Teaching (r)	Research (r)	Extension education (r)	Overall performance effectiveness (r)
1	Recognition and Reward	0.4012**	0.3478**	0.4513**	0.4687**
2	Fair and impartial administration	0.3634**	0.4566**	0.2645	0.4035**
3	Facilities and resource	0.2373	0.2281	0.2316	0.2687
4	Job security	0.6458**	0.3489**	0.5070**	0.6075**
5	Scope for job enrichment	0.7406**	0.6555**	0.6384**	0.7890**
6	Job status	0.5180**	0.4392**	0.5641**	0.5948**
7	Salary structure	0.5706**	0.4778**	0.5046**	0.6057**
8	Freedom for expression	0.7137**	0.4463**	0.6540**	0.7262**
9	Career development opportunity	0.5951**	0.5333**	0.6635**	0.6974**

** Significant at 0.01 per cent level

Among these factors, scope for job enrichment is the highly correlated factor with respect to teaching, research and overall performance effectiveness. Whereas career development opportunity is highly correlated factor with respect to extension education. Job enrichment is a process concerned with the development of employees. Scope for job enrichment refers to the opportunity for the employees to acquire more skills in performing their duties, so that they may take upon the responsibilities in managing their own assigned tasks and become the most wanted person in the organization, because a person with multiple skill is recognized well. This may be reason that the factor, scope for job enrichment is highly influencing the performance effectiveness of teachers with respect to teaching, research and overall performance effectiveness.

4.2.1.1 Contribution of the organizational factors to the performance effectiveness of teachers

In order to see the contribution of organizational factors to the performance effectiveness of teachers, multiple regression analysis was done.

Table 4. Multiple regression analysis of the organizational factors with teaching, research, extension education and overall performance effectiveness of teachers

(n = 57)

No.	Variable Name	Teaching (r)	Research (r)	Extension education (r)	Overall performance effectiveness (r)
	Constant	20.474	3.980	-6.600	10.777
X ₁	Recognition and Reward	1.309**	--	1.109**	1.807**
X ₂	Fair and impartial administration	--	1.689**	--	--
X ₃	Facilities and resource	--	--	--	3.400**
X ₄	Job security	2.016**	--	--	4.031**
X ₅	Scope for job enrichment	0.988**	1.113**	--	5.397**
X ₆	Job status	--	1.207**	0.904	3.397**
X ₇	Salary structure	1.147**	0.617	0.852**	1.700**
X ₈	Freedom for expression	2.203**	--	1.927**	--
X ₉	Career development opportunity	--	--	1.962**	--
	R ²	0.868	0.569	0.766	0.966

** Significant at 0.01 per cent level

The results of multiple regression analysis done with the nine organizational factors against performance effectiveness with respect to teaching, research and extension education are presented in Table 4. The coefficient of determination worked for teaching, research, extension education, and overall performance effectiveness of teacher were 0.868, 0.569, 0.766 and 0.966, respectively which

revealed that over 86 per cent, 56 per cent, 76 per cent and 96 per cent of the variation in performance effectiveness with respect of teaching, research, extension education and overall performance effectiveness of teachers, respectively were explained by the variables selected for the study. The table further shows that freedom for expression (2.203), job status (1.207), career development opportunity (1.962) and scope for job enrichment (5.397) were the strong predictors of performance effectiveness with regard to teaching, research, extension education and overall performance effectiveness of teachers, respectively.

4.2.2 At Individual level

From the finding recorded in Table 5, it could be seen that almost all the factors at individual level had highly significant and positive correlation with teaching, research, extension education and overall performance effectiveness of teachers.

Table 5. Correlation of the individual factors with teaching, research and extension education and overall performance effectiveness of teachers

(n = 57)

Sl. No.	Individual factors	Teaching (r)	Research (r)	Extension Education (r)	Overall performance effectiveness (r)
1	Job satisfaction	0.6035**	0.6263**	0.6434**	0.7182**
2	Job involvement	0.7146**	0.6840**	0.7258**	0.8202**
3	Self-confidence	0.6909**	0.6809**	0.6999**	0.7975**
4	Job perception	0.8465**	0.5841**	0.7232**	0.8546**
5	Achievement motivation	0.7816**	0.6476**	0.6547**	0.8129**
6	Leadership	0.7911**	0.5649**	0.8072**	0.8576**
7	Positive thinking	0.7155**	0.7145**	0.7179**	0.8256**
8	Sociability	0.7261**	0.4289**	0.6733**	0.7353**

** Significant at 0.01 per cent level

It shows very clearly that the factors selected after screening are very relevant and directly related to the performance effectiveness of teachers. Among these, job perception, positive thinking and leadership were the highly correlated factors with teaching, research and extension education respectively. With regards to the overall performance effectiveness, leadership was the highly correlated factor (Fig. 3). The clear perception of the teachers about their job with positive attitude and leadership quality in achieving their goal may probably be the reason for the present finding.

4.2.2.1 Contribution of the individual factors to performance of effectiveness of teachers

In order to see the contribution of the individual factors to the performance effectiveness of teachers, multiple regression analysis was done. The results are presented in Table 6.

Table 6. Multiple regression analysis of the individual factors with teaching, extension education and overall performance effectiveness of teachers

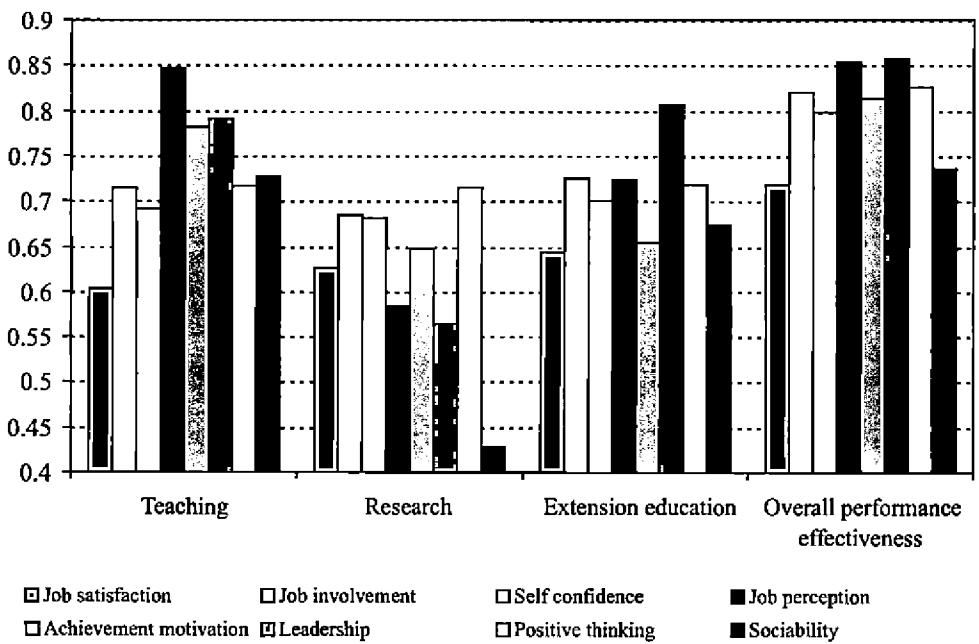
(n = 57)

No.	Variable Name	Teaching (r)	Research (r)	Extension education (r)	Overall performance effectiveness (r)
	Constant	20.030	-8.510	-9.235	28.377
X ₁	Job satisfaction	--	--	1.763*	2.662**
X ₂	Job involvement	1.151	3.614**	--	3.744**
X ₃	Self confidence	--	2.319**	--	--
X ₄	Job perception	4.375**	-2.488**	1.154	3.470**
X ₅	Achievement motivation	--	2.639**	--	4.034**
X ₆	Leadership	1.121**	--	1.688**	4.394**
X ₇	Positive thinking	1.351	--	1.697	--
X ₈	Sociability	1.746**	-0.402	0.818	--
X ₉	R ²	0.884	0.670	0.780	0.976

** Significant at 0.01 per cent level

* Significant at 0.05 per cent level

Fig. 3. Diagram showing correlation of Individual factors with performance effectiveness



The coefficient of determination worked out for teaching, research, extension education and overall performance effectiveness were 0.84, 0.670, 0.780 and 0.976 respectively, which revealed that over 88 per cent, 67 per cent, 78 per cent and 97 per cent of the variation in performance effectiveness with respect to teaching, research, extension education and overall performance effectiveness, respectively were explained by the variables selected for the study.

The table further shows that job perception (4.375), job involvement (3.614), job satisfaction (1.763) and leadership (4.394) were the strong predictors of performance effectiveness with respect to teaching, research, extension education and overall performance effectiveness.

4.3 DISTRIBUTION OF THE RESPONDENTS BASED ON THE PROFILE CHARACTERISTICS

Profile characteristics of teachers in this study lay stress on the distribution of respondents with regard to their sex, designation, educational status, professional experience, trainings undergone, number of seminars/symposia attended, number of publications, research contributions and research guidance.

4.3.1 Sex

The data from the Table 7 and Fig. 4 revealed that 39 per cent of the respondents were males and 61 per cent of the respondents were females

Table 7. Distribution of the respondents with respect to sex

(n = 57)

Sl. No.	Category	Frequency	Percentage
1	Male	22	39
2	Female	35	61
	Total	57	100

Fig. 4. Distribution of respondents based on sex

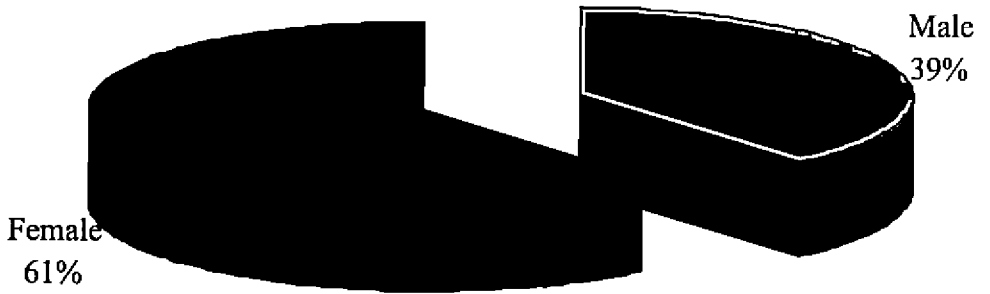
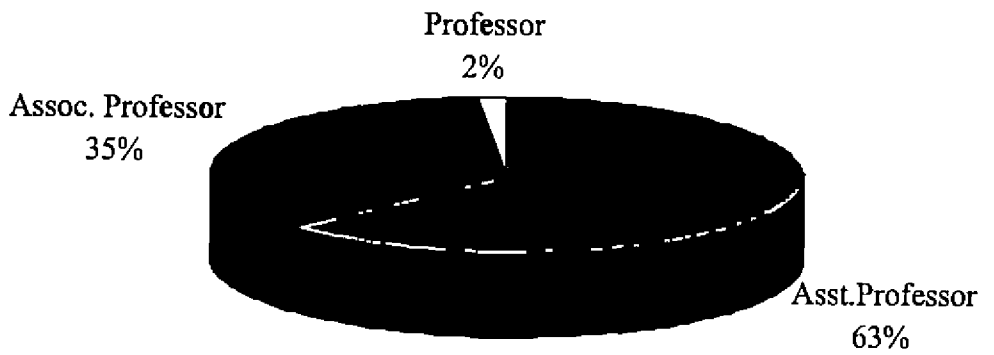


Fig. 5. Distribution of respondents based on Designation



Selection for agriculture course is based on the common entrance examination. The hard working nature of the female students with the ambition of entering professional courses might be the reason for getting better grade in the exams. It may also be due to their aptitude and interest in teaching rather than technical jobs.

4.3.2 Designation

It was observed from the data on Table 8 and Fig. 5 that the distribution of the respondents based on the designation was in the frequency of 36, 20 and 1 in Assistant Professor, Associate Professor and Professor categories. Majority of the teachers were Assistant Professors (63). The finding of the study was in contrary with the findings of Kumar (1997).

Table 8. Distribution of the respondents with respect to designation

(n = 57)

Sl. No.	Category	Frequency	Percentage
1	Asst. Professor	36	63
2	Assoc. Professor	20	35
3	Professor	1	2
	Total	57	100

It is very painful to note that only 2 per cent of the respondents were in the professor category. It reveals the very peculiar situation existing in the Kerala Agricultural University. It is learned that the career advancement programmes were not properly implemented for the last 15 years and almost 63 per cent of the teachers were stagnated in the entry cadre level even after completing more than 18 years of service in the university.

4.3.3 Educational status

The data from Table 9 indicated that majority of the teachers (94 %) were doctorates in their field of specialization. While 4 per cent teachers had MBA. A negligible number of teachers (2 %) had education up to Master's level (Fig. 6). The results of the study are in conformity with the results of Kumar (1997).

Table 9. Distribution of the respondents with respect to educational status

(n = 57)

Sl. No.	Category	Frequency	Percentage
1	M.Sc.	1	2
2	Ph.D.	54	94
3	Others	2	4
	Total	57	100

Because the UGC standards stipulates higher qualification for promotion, majority of the teachers were doctorates in their respective field in anticipation of the implementation of UGC package, and their promotion to higher cadre level. But at the same time, it was observed that the undue delayed promotion is a burning issue still persisting in the university. Otherwise it would have accelerated the performance level of the teachers even to a highest level. This may be the reason that more number of teachers enhanced their educational qualification to Ph.D. level.

4.3.4 Professional experience

A perusal of the data in Table 10 showed that the distribution of the respondents with respect to professional experience was found to be 21 per cent in the high category, 56 per cent in the medium category and 23 per cent in the low category (Fig. 7).

Table 10. Distribution of the respondents with respect to professional experience

(n = 57)

Sl. No.	Description	Class interval	Frequency	Percentage
1	Low	Below 10.00	13	23
2	Medium	10.00 – 27	32	56
3	High	Above 27	12	21
	Total		57	100

Range = 7-31; \bar{X} = 18.43

Majority of the teachers have more than 18 years of service. This may be one of the reasons for the better performance of the teachers. The earlier Table 8 shows that majority of the teachers were in the entry cadre level. This clearly shows that the proper selection is not periodical.

4.3.5 Trainings undergone

From the data on Table 11 and Fig. 8 revealed that majority of the respondents fell in the medium category (84 %). 11 per cent of the respondents were in the high category. A negligible percentage of the respondents (5 %) were in the low category.

It may be because of the reason that UGC norms stipulated the participation of scientists in more number of training programmes as one of the criteria for career advancement promotion.

Fig. 8. Distribution of respondents based on trainings undergone

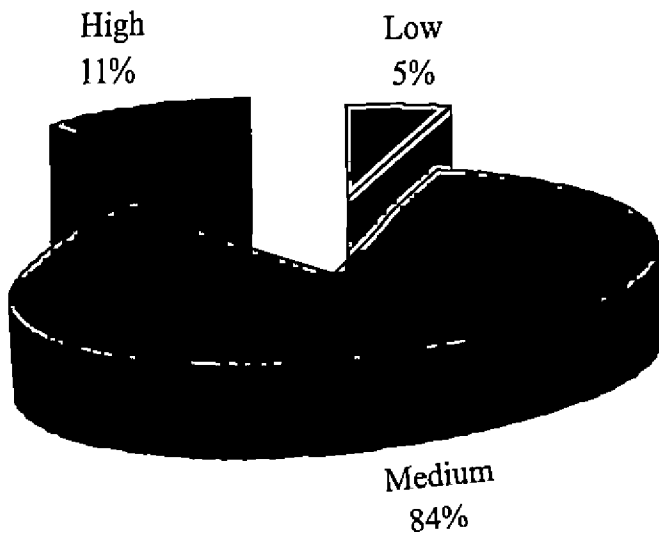


Fig. 9. Distribution of respondents based on number of seminars/symposia attended

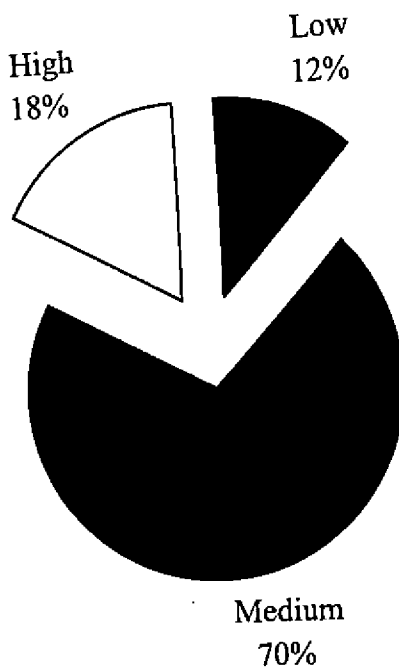


Fig. 6. Distribution of respondents based on educational status

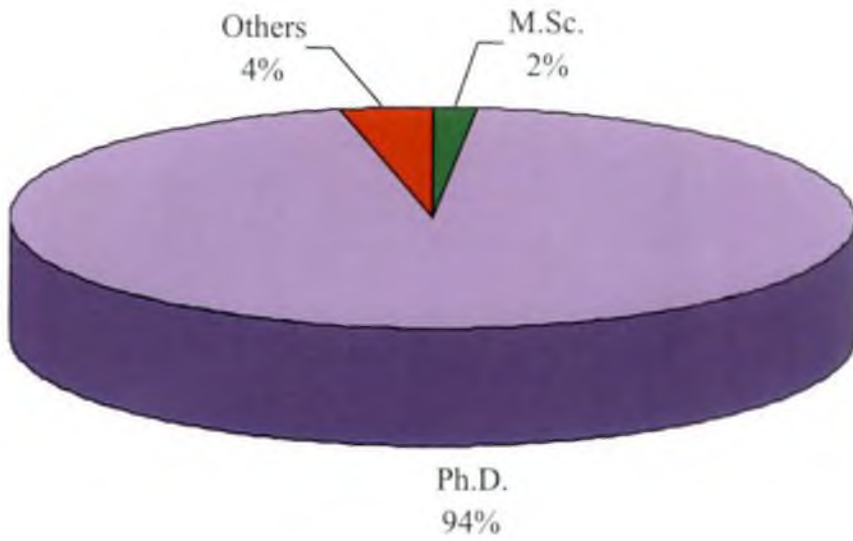


Fig. 7. Distribution of respondents based on professional experience

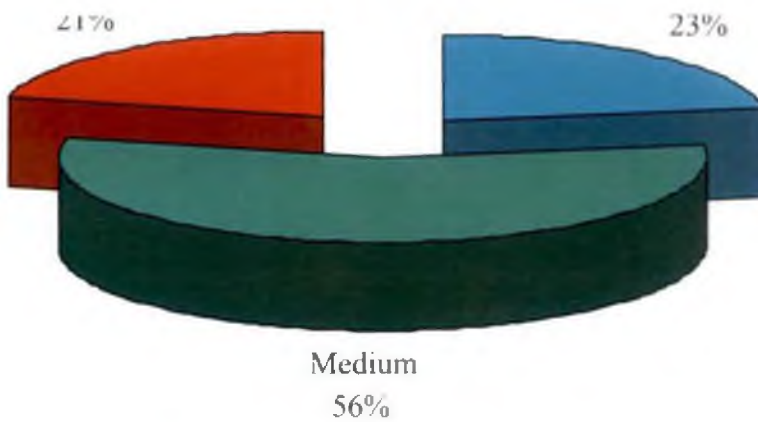


Fig. 8. Distribution of respondents based on trainings undergone

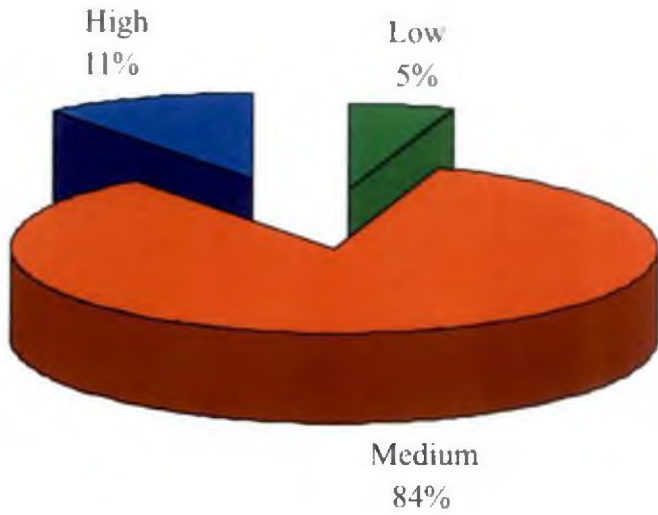


Fig. 9. Distribution of respondents based on number of seminars/symposia attended



Table 11. Distribution of the respondents with respect to trainings undergone

(n = 57)

Sl. No.	Description	Class interval	Frequency	Percentage
1	Low	Below 1	3	5
2	Medium	2 - 7	48	84
3	High	Above 7	6	11
	Total		59	100

Range = 0 to 17; $\bar{X} = 4.5$

4.3.6 Number of seminars/symposia attended

From the findings recorded in Table 12 it could be seen that most of the respondents belong to the medium category (70 %). Remaining 12 per cent and 18 per cent of the respondents fell in the category of low and high respectively (Fig. 9).

Table 12. Distribution of the respondents with respect to seminars/symposia attended

(n = 57)

Sl. No.	Description	Class interval	Frequency	Percentage
1	Low	Below 3	7	12
2	Medium	4 - 19	40	70
3	High	Above 19	10	18
	Total		57	100

Range = 1 to 40; $\bar{X} = 11.6$

It may be because of the reason that UGC norms stipulated the participation of the scientists in a number of seminars/symposia as one of the criteria for career advancement promotion. It may also be due to the aspiration of the teachers to become the subject matter experts in their respective field.

4.3.7 Number of publications

The findings from the Table 13 showed that regarding publications of popular articles, 8.77 per cent of the respondents were in the high category and 14.03 per cent were in the low category. With respect to the publications of research articles, 17.54 per cent of the respondents were in the low category and 12.28 per cent of the respondents were in the high category.

The UGC norms stipulated sufficient number of publications as one of the criteria for promotion of the scientists which may probably be the reason for the present finding. It may also be due to the fact that the teachers were very much committed towards their profession.

Table 13. Distribution of the respondents with respect to publications

(n = 57)

Sl. No.	Description	Mean - SD	Mean + SD	Low		Medium		High	
				(f)	(%)	(f)	(%)	(f)	(%)
1	No. of Popular articles	0.77	28.91	5	8.77	44	77.19	8	14.03
2	Research articles	11.61	33.22	10	17.54	40	70.17	7	12.28
3	Books/Manuals								
3.a	An editor	-0.51	3.11	23	40.35	27	47.36	7	12.28
3.b	Contributed chapter	0.008	2.92	21	36.84	36	63.15	15	26.31



4.3.8 Research contribution

The data presented in Table 14 showed that 56.1 per cent of the respondents had completed KAU Projects as Principal Investigators and 45.6 per cent of the respondents had completed Externally Aided Projects as Principal Investigators. It could be noted that 64 per cent of the respondents had completed KAU projects as Project Associates whereas 49.1 per cent of the respondents had completed Externally Aided Projects as Project Associates.

Regarding ongoing projects, the Table 12 revealed that 36.8 per cent of the respondents were engaged in KAU projects as Principal Investigators and 31.5 per cent of the respondents were engaged in Externally Aided Projects as Principal Investigators. It could be further noted that 31.5 per cent of the respondents were engaged in KAU projects as Project Associates and 26.3 per cent of the respondents were engaged in Externally Aided Projects as Project Associates.

The UGC norms stipulated the participation of scientists in more number of research projects particularly in Externally Aided Projects as one of the criteria for promotion. This could be attributed to be the reason for this finding. Moreover externally aided project providing opportunity for the scientist to avail financial assistance for conducting research in the field in which they are specialized and it may also act as a source for getting job satisfaction.

Table 14. Distribution of the respondents with respect to research contributions

(n = 57)

Sl. No.	Description	KAU Projects				Externally aided projects			
		Completed		Ongoing		Completed		Ongoing	
		(F)	(%)	(F)	(%)	(F)	(%)	(F)	(%)
1	Principal Investigator	36	56.1	21	36.8	26	45.6	18	31.5
2	Principal Associate	37	64	18	31.5	28	49.1	15	26.3

4.3.9 Research guidance

Table 15 revealed that 43.9 per cent of the respondents had guided Ph.D. students as Major Advisors, and 66.7 per cent of the respondents had guided M.Sc students as Major Advisors. It could be noted that 59.6 per cent of the respondents were found to have guided Ph.D. students as Member and 61.4 per cent of the respondents were found to have guided M.Sc. students as Members.

It may be because of the reason that UGC norms stipulated the participation of scientists in the more number of guiding students as one of the criteria for promotion. It shows that the teachers are interested in guiding the students as Major Advisor as well as Member and the departments are taking keen interest in providing opportunity to the teacher to the students. Some of the externally aided projects are providing opportunity for the students to associate with the research projects as well as to perceive their Master and Doctoral degree programmes.

Table 15. Distribution of the respondents with respect to research guidance

(n = 57)

Sl. No.	Description	Ph.D. students guided		M.Sc. Students guided	
		(f)	(%)	(f)	(%)
1	As. Major Advisor	25	43.9	38	66.7
2	As Member	34	59.6	35	61.4

On close examination of the profile characteristics of teachers, it shows very clearly that, all these respondents were highly qualified, having doctorate degree, rich experience in teaching, research and extension education, participated in more number of training programmes, seminars / symposia, publishing more number of research / popular articles, excellent guidance to the students and their substantial contribution to the research work.

4.4 RELATIONSHIP OF PROFILE CHARACTERISTICS WITH PERFORMANCE EFFECTIVENESS

Table 16 reveals that the profile characteristics such as educational status, professional experience, number of seminar / symposia attended, number of publications, research contributions and research guidance were positively but not significantly correlated with performance effectiveness of teachers. The profile characteristic trainings undergone was negatively but not significantly correlated with performance effectiveness.

Table 16. Correlation of profile characteristics with performance effectiveness

(n=57)

Sl. No	Profile characters	'r' value
1.	Educational status	0.0275 ^{NS}
2.	Professional experience	0.1704 ^{NS}
3.	Trainings undergone	0.1201 ^{NS}
4.	Number of seminars/symposia attended	0.0085 ^{NS}
5.	Number of publications	
	Popular articles	0.1999 ^{NS}
	Research articles	0.0142 ^{NS}
6.	Research contribution	0.2100 ^{NS}
7.	Research guidance	0.0852 ^{NS}

NS = Not significant

Several studies such as Miller *et al.* (1989), Satapathy and Choudary (1990), Ravichandran (1993), Geetha (1996) Kumar (1997) and Rezvanfer and Vaisy (2006) reported that the above-mentioned profile characteristics were having positive and significant correlation with scientific productivity, job performance, job satisfaction, efficiency and job performance, respectively. But here all the profile characteristics were non significant.

This may be due to the peculiar organizational climate existing in the Kerala Agricultural University. Here the respondents are offering under graduate courses and almost all the teachers are having higher qualifications and taken keen interest in attending more number of trainings, seminars as well as publishing popular and research articles. The respondents expressed their dissatisfaction due to delayed promotion, undue delay in implementation of the UGC package in the Kerala Agricultural University, stagnation in the entry cadre level and over and above poor relationship between administration, research management and scientists.

This may be the reasons for non significant relationship of the profile characteristic with the performance effectiveness

4.5 CONSTRAINTS AS PERCEIVED BY THE TEACHERS

Table 17 gives a prioritized picture of the major constraints faced by the teachers. The constraints were rated on the basis of relevancy in the KAU context and importance assigned to them by the teachers.

Table 17. Constraints as perceived by the teachers

Sl. No.	Constraints	Constraint index	Rank
1.	Excessive dependence on funding agency oriented research	8.66	I
2.	Cumbersome procedures of office administration	8.64	II
3.	Lack of team work in research/extension activities	8.58	III
4.	Research agenda prioritization with out considering farmer's problems	8.19	IV
5.	Poor accountability and responsibility on the part of university administration	8.15	V

Sl. No.	Constraints	Constraint index	Rank
6.	Inadequate administrative support	8.05	VI
7.	Lack of incentives and rewards for better performance	7.90	VII
8.	Adhocism in policy formulation and its implementation	7.82	VIII
9.	Inadequate support for research/extension activities	7.64	IX
10.	Professional management principles is not followed in university	7.63	X
11.	Inadequate authority in exercising duties and responsibilities	7.52	XI
12.	Absence of scientific methodology for accessing and quantifying the program in extension education activities	7.34	XII
13.	Poor inter personal relationship among employees	7.31	XIII
14.	Too much individualism and egoism among teaching communities	7.29	XIV
15.	Lack of opportunities for job enrichment	7.20	XV
16.	Lack of carrier development opportunities	7.10	XVI
17.	Belated disbursement of salary and other allowances	6.80	XVII
18.	Excessive work load	5.99	XVIII
19.	Political interference in day-to-day activities	5.19	XIX

Excessive dependence on funding agency oriented research (8.66) was highlighted to be a major constraint by the teachers followed by cumbersome procedures of office administration (8.64), lack of team work in research / extension activities (8.58), research agenda prioritization without considering farmers problem (8.19), poor accountability and responsibility on the part of university administration (8.15); inadequate administrative support (8.05), lack of

incentives and rewards for better performance (7.90), adhocism in policy formulation and its implementation (7.82), inadequate support for research/extension activities (7.64), professional management principles is not followed in university (7.63), inadequate authority in exercising duties and responsibilities (7.52), absence of scientific methodology for accessing and quantifying the program in extension education activities (7.34), poor interpersonal relationship among employees (7.31), too much individualism and egoism among teaching communities (7.29), lack of opportunities for job enrichment (7.20), lack of career development opportunities (7.10), belated disbursement of salary and other allowances (6.80), excessive work load (5.99) and political interference in day-to-day activities (5.19).

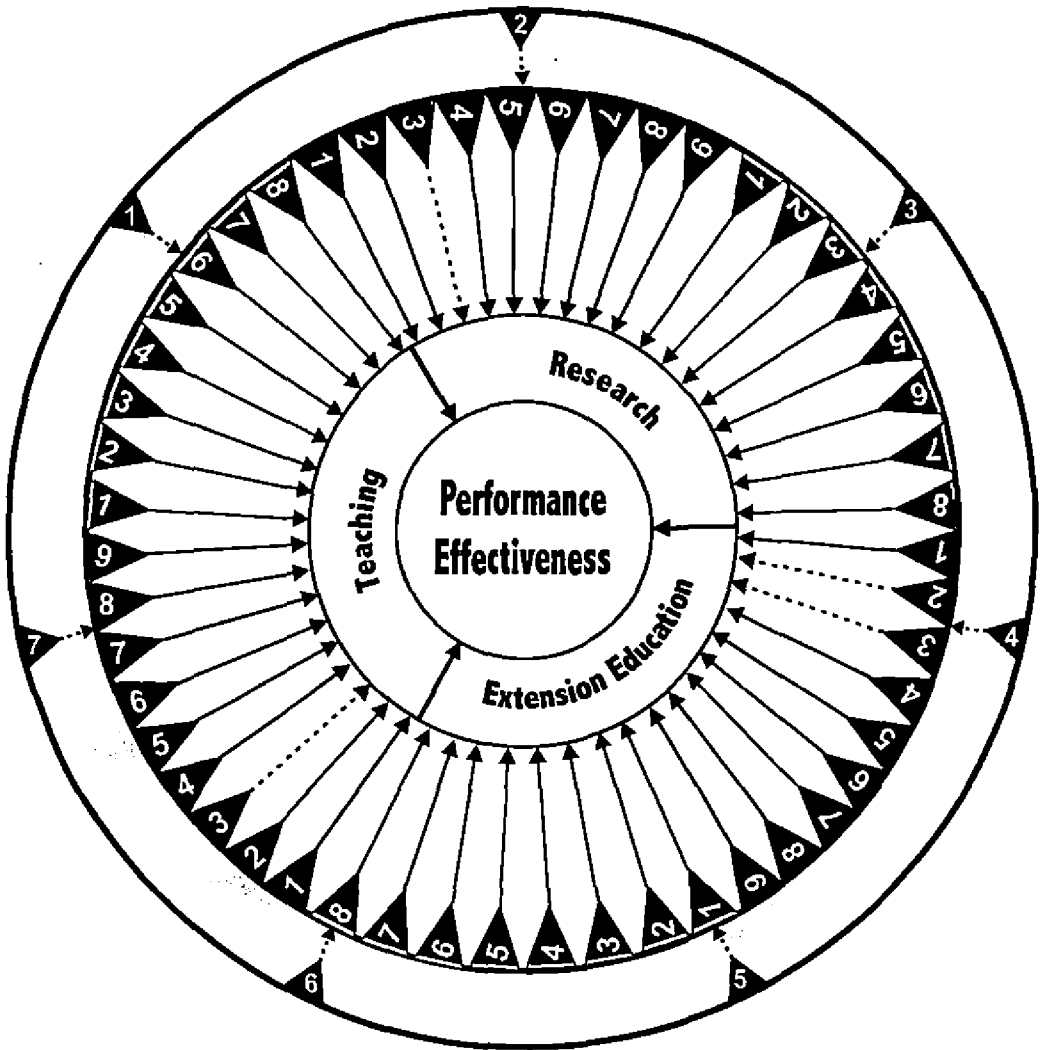
4.6 SUGGESTIONS FOR ENHANCING THE PERFORMANCE EFFECTIVENESS OF TEACHERS

Based upon the experience and understanding internalized during the research work, review of related literature and personal interaction with all the stakeholders of the University, some specific suggestions for the effective functioning of the Kerala Agricultural University to cater to the needs of the farming community are put forth here.

1. Modern principles of management in the administration of University, concepts like MBO (Management by Objective) and ROWE (Results on Work Environment) can be applied with appropriate modifications.
2. Decentralization of planning, monitoring and administration of education, research and outreach activities-IARI, IIS model could be adopted with suitable modification.
3. Provide leadership and managerial efficiency to the administration.

4. Scientific quantification of work performance taking into account the triple mandates viz., teaching, research and extension education in career advancement of teachers.
5. Transfer policy of the scientists and others need a thorough revamping to make it timely, transparent and just.
6. Perhaps Kerala Agricultural University may be the only State Agricultural University having the distinction of total number of Professor in single digit due to unnecessary and undue delay in settling the issues in ICAR, UGC packages.
7. Immediate efforts should be made to appoint scientist/ teachers particularly in the research stations and colleges located in the remote areas.
8. As it has been successfully implemented in the neighbouring SAU like UAS, Bangalore and TNAU, Coimbatore all the officers and Head of Departments may be appointed on rotational basis to ensure the distributive justice and enhanced output.
9. Efforts should be taken to improve the morale and motivation of the scientists / teachers by expediting the conduct of career advancement programme.
10. The tendency to depend excessively on Externally Aided Projects creates a situation in which the farmer's interest and ecological considerations have been put into the back burner.
11. The administrative and academic bodies like academic council, general council and executive committee right now devote more time for deliberations pertaining to those areas which are not directly concerned with achieving the mandate of the university. This should be avoided.

Fig. 10. Empirical model of the study



—→ Positive and significant at 1 per cent level
→ Positive but Non-significant

Profile characters

1. Educational status
2. Professional experience
3. Trainings undergone
4. Number of seminars/symposia attended
5. Number of publications
6. Research contributions
7. Research guidance

Organizational factors

1. Recognition and reward
2. Fair and impartial administration
3. Facilities and resources
4. Job security
5. Scope for job enrichment
6. Job status
7. Salary structure
8. Freedom for expression
9. Career development opportunity

Individual factors

1. Job satisfaction
2. Job involvement
3. Self confidence
4. Job perception
5. Achievement motivation
6. Leadership
7. Positive thinking
8. Sociability

12. Devise an appropriate management strategy to make full use of the potential of the supporting staff existing in the University for achieving the overall objectives and results of the University.
13. The Extension Directorate needs to be revamped and revitalized with proper leadership having expertise in extension education for meeting the challenges of globalization and to formulate farmer-centered extension strategies.

4.7 EMPIRICAL MODEL OF THE STUDY

Empirical model of the study is illustrated in Fig. 10.

SUMMARY

5. SUMMARY

Agriculture had been, has been and will continue to be the lifeline of the Indian economy and the agricultural universities in India occupy a central position among research and developmental organizations leading the effort for the improvement of agriculture, through effective agricultural education, useful research as well as solution oriented extension education.

In the present scenario, the role of the teachers who shape the minds of the country has assumed more significance because of continuing information explosion and ongoing changes in social and economic front. This is especially true in agricultural education as today's students are teachers, researchers and extension workers of the future. So the teachers have to play a lead role in any educational institution and their performance needs to be assessed to know the current level of performance effectiveness.

The underlying intention of the present study was to investigate the performance effectiveness of teachers in the agricultural colleges of the Kerala Agricultural University.

The specific objectives of the present study were :

1. To assess the performance effectiveness of teachers in the agricultural colleges of the Kerala Agricultural University.
2. To delineate the factors which influence the performance effectiveness of teachers.

3. To identify the constraints affecting the performance effectiveness of teachers
4. To suggest measures to enhance the performance effectiveness of teachers

The teachers who have offered courses for the under graduate students were selected as the respondents for the study by using probability proportionality size sampling from the three agricultural colleges of Kerala Agricultural University. Thus the selected sample consisted of 26 respondents from the College of Horticulture, Vellanikkara, 22 respondents from the College of Agriculture, Vellayani and 12 respondents from College of Agriculture, Padannakkad. Finally, the total sample size was sixty.

The very objective of the study necessitated the selection of the dependent variable: Performance effectiveness and it was operationally defined as the degree to which a teacher does right things in a creative way to achieve the intended and desired results through optimal utilization of resources in teaching, research and extension education. A scale was developed, tested for reliability and validity using accepted scientific procedures and was for quantifying performance effectiveness.

To delineate the factors influencing the performance effectiveness of teachers, a list of variables was prepared based on the review of literature. This list was given for relevancy rating and based on their responses; nine organizational factors and eight individual factors were selected for inclusion in the study. Organizational factors included recognition and reward, fair and impartial administration, facilities and resources, job security, scope for job enrichment, job status, salary structure, freedom for expression and career development opportunity. The individual factors included job satisfaction, job involvement, self-confidence, job perception, achievement motivation, positive thinking, leadership and sociality.

Pre-tested structured and standardized questionnaires were used for data collection. Analysis of data was carried out using appropriate statistical procedures like frequencies, percentages and correlation coefficient.

The salient findings of the study are summarized below.

1. The mean score obtained for the overall performance effectiveness of teachers was 169.49 (80.7 %). It was noted that the respondents were towards the better performance level.
2. Regarding teaching, research and extension education, the mean score obtained were 80.87 (80.87 %), 41.12 (82.24 %) and 47.49 (79.15 %), respectively. This definitely indicates the better performance of the respondents in all the three components, such as teaching, research and extension education.
3. The distribution to the respondents based on the overall performance effectiveness revealed that 85.96 per cent of the respondents were in the high category and 14.04 per cent of the respondents were in the medium category. No one belongs to the low category.
4. With respect to teaching, research and extension education, 91.23 per cent, 89.47 per cent and 84.21 per cent of the respondents were in the high category, respectively. 8.77 per cent, 10.53 per cent and 15.79 per cent of the respondents were in the medium category in teaching, research and extension education, respectively.
5. Correlation analysis of the organizational factors with performance effectiveness revealed that recognition and reward, fair and impartial administration, job security, scope for job enrichment, job status, salary structure, freedom for expression and career development opportunity were positively and significantly correlated with overall performance effectiveness.

6. The multiple regression analysis revealed that the organizational factors put together contributed significantly to the performance effectiveness of the teachers and explained 96 per cent of the variation in overall performance effectiveness with the selected variables such as scope for job enrichment, job security, facilities and resources, job status, recognition and reward and salary structure.
7. Correlation analysis of the individual factors with teaching, research, extension education and overall performance effectiveness revealed that job satisfaction, job involvement, self confidence, job perception, achievement motivation, leadership positive thinking and sociability were positively and significantly correlated.
8. The multiple regression analysis revealed that the individual factors put together contributed significantly to the performance effectiveness of the teachers and explained 97 per cent of the variation in overall performance effectiveness, with the selected variables such as leadership, achievement motivation, job involvement, job perception and job satisfaction.
9. The frequency distribution based on profile characteristics revealed that majority of the respondents were females (61.4%). Designation showed that more than 50.9 per cent of the respondents were in the category of Assistant Professor. Majority of the respondents (94.7%) were doctorates in their field of specialization. With respect to professional experience, majority of the teachers have more than 18 years of service. Trainings undergone, number of seminars attended, numbers of publications of the respondents were found to be in medium category.
10. More than half (56.1%) of the respondents had contributed to KAU research projects as Principal Investigators and 45.6 per cent of the

respondents had contributed to Externally Aided Projects as Principal Investigators.

11. Regarding ongoing projects, 36.8 percent of the respondents were associate with KAU research projects as Principal Investigator and 31.5 per cent of the respondents were associate with Externally Aided Projects as Principal Investigators.
12. Majority of the respondents (64 %) were associated with the KAU research projects as Project Associates and nearly half (49.1%) of the respondent were associated with the Externally Aided Project as Project Associates.
13. Regarding on going projects, 31.5 percent of the respondent were associated with the KAU research projects as Project Associates and 26.3 per cent of the respondent were associated with the Externally Aided Project as Project Associates.

SUGGESTED LINES OF FUTURE WORK

The present study has been undertaken only with regard to undergraduate teachers. Hence it is suggested that similar studies may be taken up in future to assess the performance effectiveness of the post graduate teachers.

The scope of the present investigation was restricted to the three agricultural colleges of Kerala Agricultural University. Hence the remaining institutions, not only in Colleges but also the scientists working in the research stations and Krishi Vigyan Kendras (KVK) should also be studied to assess their performance effectiveness.

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APPENDICES

KERALA AGRICULTURAL UNIVERSITY

Dr. S. Mothilal Nehru,
Associate Professor

Department of Agri. Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695522
Dated:

Sir/Madam,

Sub: P.G. Education-Research Project-judges opinion requested –
regarding

Kumari M. Mercy Bella, M.Sc.(Ag) student of this department is undertaking a research study entitled “**Performance effectiveness of teachers in the Agricultural Colleges of Kerala Agricultural University**”. As a part of the research work, the student researcher likes to the study the factors influencing the performance effectiveness of teachers. For this purpose she has listed out number of factors influencing the performance effectiveness of teachers. In order to assess the relevancy of the factors, they are to be rated on a five- point continuum.

With your experience and expertise, I consider you as one of the most appropriate judges to rate the various factors influencing the performance effectiveness of teachers according to their relevancy.

I request you to kindly spare some time for rating the factors.

Thanking you,

Yours sincerely,

S. Mothilal Nehru

Appendix - I

Selection of factors influencing the performance effectiveness of teachers

Sl. No.	Items/ statements	Most Relevant	More Relevant	Relevant	Less Relevant	Least Relevant
I	Organizational factors					
1.	Job status					
2.	Recognition and reward					
3.	Fair and impartial administration					
4.	Job security					
5.	Carrier development opportunity					
6.	Facilities and resources					
7.	Rules and regulations of the work					
8.	Freedom for expression					
9.	Scope for job enrichment					
10.	Salary structure					
11.	Scope for team work					
12.	Interpersonal relationship					
13.	Management style					
14.	Job diversity					

Individual factors						
1.	Job satisfaction					
2.	Job involvement					
3.	Team spirit					
4.	Self-confidence					
5.	Patience					
6.	Achievement motivation					
7.	Positive thinking					
8.	Job perception					
9.	Leadership					
10.	Level of aspiration					
11.	Sociability					
12.	Job autonomy					
13.	Job oriented					
14.	Enthusiasm					
15.	Attitude of the family members towards the work					
16.	Political affiliation					

Name :

Signature :

Designation :

KERALA AGRICULTURAL UNIVERSITY

Dr. S. Mothilal Nehru,
Associate Professor

Department of Agrl. Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695522
Dated:

Sir/Madam,

Sub: P.G. Education-Research Project-judges opinion requested –
regarding

Kumari M. Mercy Bella, M.Sc.(Ag) student of this department is undertaking a research study entitled “**Performance effectiveness of teachers in the Agricultural Colleges of Kerala Agricultural University**”. Statements/items which represent the performance effectiveness of teachers with respect to teaching, research and extension education have been identified.

In view of your professional experience and expertise, you have been identified as a judge for rating the relevancy of the items regarding the major areas of performance such as teaching research and extension. I therefore request you to kindly spare your valuable time to rate these statements/items for its relevancy on a five point continuum.

You are free to add any new variable relevant to this study. Kindly return the judgement to the researcher.

Thanking you,

Yours sincerely,

S. Mothilal Nehru

Appendix - II

Selection of items for the study

Sl. No.	Items/ statements	Most Relevant	More Relevant	Relevant	Less Relevant	Least Relevant
I	Teaching					
1.	Knowledge on subject Matter					
2.	Communicative ability					
3.	Commitment to profession					
4.	Technical competency					
5.	Creativity					
6.	Attitude towards student					
7.	Ability to motivate student					
8.	Empathy towards student					
9.	Personal integrity					
10.	Skill in teaching techniques					
11.	Teaching style					
12.	Subject matter/content coverage					
13.	Time management skill					
14.	Class room management					
15.	Clarity of expression					

16.	Involvement of student Activities					
17.	Concern in carrier development of student					
18.	Unbiased student evaluation					
19.	Overall performance of the student					
II	Research					
1.	Involvement in Externally aided projects					
2.	Involvement in institutional research projects					
3.	Publishing research articles					
4.	Publishing popular articles					
5.	Decision making ability					
6.	Ability to use advanced techniques					
7.	Associate with institution development					
8.	Ability to lead research activities					
9.	Takes initiatives to strengthen the research capabilities of institutions					
10.	Willingness to acquire more knowledge in the field of specialization					
11.	Willingness to acquire more skill in the field of specialization					

III	Extension					
1	Maintaining support with farmers					
2.	Listen to the views of farmers					
3.	Encourage farmers visit to institutions					
4.	Make field visits					
5.	Involvement in mass media activities					
6.	Publish extension literature to provide information to the farmers/extension personnel					
7.	Organize training					
8.	Conduct demonstrations					
9.	Attitude towards field extension work					
10.	Act as resource person					

Name :

Signature :

Designation :

Appendix III

List of Factors and their mean relevancy

Sl. No.	Factors at organizational Level	Mean Relevancy score obtained on Judges rating
1.	Job status*	4.1
2.	Recognition and reward*	4.5
3.	Fair and impartial administration*	4.4
4.	Job security*	4.3
5.	Career development opportunity*	4.2
6.	Facilities and resources*	4.3
7.	Rules and regulations of the work	3.5
8.	Freedom for expression*	4.3
9.	Scope for job enrichment*	4.2
10.	Salary structure*	4.1
11.	Scope for team work	3.9
12.	Interpersonal relationship	3.5
13.	Management style	4.0
14.	Job diversity	4.0

$$\bar{X} = 4.1$$

\bar{X} = average mean relevancy score

Sl. No.	Factors at Individual level	Mean Relevancy score obtained on Judges rating
1.	Job satisfaction*	4.7
2.	Job involvement*	4.6
3.	Team spirit	3.8
4.	Self-confidence*	4.4
5.	Patience	3.4
6.	Achievement motivation*	4.6
7.	Positive thinking*	4.5
8.	Job perception*	4.3
9.	Leadership*	4.6
10.	Level of aspiration	3.2
11.	Sociability*	4.3
12.	Job autonomy	3.7
13.	Job oriented	3.5
14.	Enthusiasm	3.2
15.	Attitude of the family members towards the work	3.8
16.	Political affiliation	1.4

$$\bar{X} = 3.9$$

\bar{X} = average mean relevancy score

Appendix IV

List of items and their mean relevancy score

Sl. No.	Items	Mean Relevancy score obtained on Judges rating
I.	Teaching	
1.	Knowledge on subject matter*	4.9
2.	Communicative ability*	4.6
3.	Commitment to profession*	4.6
4.	Technical competency	4.1
5.	Creativity	3.8
6.	Attitude towards student	4.1
7.	Ability to motivate student*	4.2
8.	Empathy towards student*	4.5
9.	Personal integrity*	4.3
10.	Skill in teaching techniques*	4.4
11.	Teaching style	4.0
12.	Subject matter/content coverage*	4.6
13.	Time management skill	4.1
14.	Class room management*	4.5
15.	Clarity of expression*	4.4
16.	Involvement of student activities	3.9
17.	Concern in carrier development of student	2.9
18.	Unbiased student evaluation	3.7
19.	Overall performance of the student	3.4

$$\bar{X} = 4.2$$

(Appendix IV Contd...)

Sl. No.	Items	Mean Relevancy score obtained on Judges rating
II.	Research	
1.	Involvement in Externally aided projects*	4.4
2.	Involvement in institutional research projects*	4.2
3.	Publishing research articles*	4.3
4.	Publishing popular articles	3.5
5.	Decision making ability	3.7
6.	Ability to use advanced techniques	3.9
7.	Associate with institution development	3.6
8.	Ability to lead research activities*	4.5
9.	Takes initiatives to strengthen the research capabilities of institutions	3.8
10.	Willingness to acquire more knowledge in the field of specialization	3.6
11.	Willingness to acquire more skill in the field of specialization*	4.1

$\bar{X} = 4.0$

(Appendix IV Contd...)

Sl. No.	Items	Mean Relevancy score obtained on Judges rating
III.	Extension Education	
1.	Maintaining support with farmers*	4.4
2.	Listen to the views of farmers*	4.3
3.	Encourage farmers visit to institutions	3.5
4.	Make field visits*	4.1
5.	Involvement in mass media activities	3.8
6.	Publish extension literature to provide information to the farmers/extension personnel*	4.0
7.	Organize training*	4.0
8.	Conduct demonstrations	3.6
9.	Attitude towards field extension work	3.9
10.	Act as resource person*	4.2

$$\bar{X} = 4.0$$

\bar{X} = average mean relevancy score

QUESTIONNAIRE - I

Dear students,

As a part of my research programme, I am studying the 'Performance effectiveness of teachers with respect to teaching'.

Kindly indicate the extent of performance of teachers of this college with respect to the following items related to **teaching** by giving a score ranging from one to ten. (Here the score 'one' indicates the least performance level and the score 'ten' indicates the excellent performance level).

Your response will be kept confidential

Sl. No.	Items	T ₁	T ₂	T ₃	T ₄	T ₅	T ₆	T ₇	T ₈
		1 to 10	1 to 10	1 to 10	1 to 10	1 to 10	1 to 10	1 to 10	1 to 10
1.	Knowledge on subject matter								
2.	Subject matter/content coverage								
3.	Commitment to profession.								
4.	Communicative ability.								
5.	Empathy towards students								
6.	Classroom management								
7.	Clarity of expression								
8.	Skills in teaching techniques								
9.	Personal Integrity								
10.	Ability to motivate students								

Please do not mark any identification/ signature in the response sheet to ensure confidentiality

KERALA AGRICULTURAL UNIVERSITY

Dr. S. Mothilal Nehru,
Associate Professor

Department of Agri. Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695522
Dated:

Sir/Madam,

Kumari M. Mercy Bella M.Sc. student in Agricultural Extension is working under my guidance, studying the "Performance effectiveness of teachers in the Agricultural Colleges of Kerala Agricultural University".

For this, she has identified the teachers who have offered courses for the undergraduate students. Regarding research and extension education, the performance effectiveness is measured by involving the peer group members and superior officers.

You have been identified as one of the judge. Here the purpose is to know the performance level of teachers of KAU and not aiming any particular individual. It will be kept confidential and not revealed at any point of time. I therefore request you to kindly spare your valuable time express the frank opinion to make this study meaningful and useful.

Thanking you,

Yours sincerely,

S. Mothilal Nehru

QUESTIONNAIRE - II

Name of the Respondent (Ratee):

Kindly indicate the extent of performance effectiveness of teachers with respect to the following items related to **research and extension education** on a **ten point** continuum ranging from one to ten.

(Here the score 'one' indicates the least performance level and the score 'ten' indicates the excellent performance level).

Sl. No.	Items	Response pattern (Please indicate your score by marking a circle against each item)									
I	Research										
1.	Ability to lead research activities	1	2	3	4	5	6	7	8	9	10
2.	Involvement in externally aided projects	1	2	3	4	5	6	7	8	9	10
3.	Publishing research articles	1	2	3	4	5	6	7	8	9	10
4.	Involvement in Institution research projects	1	2	3	4	5	6	7	8	9	10
5.	Willingness to acquire more skills in the field of specialization	1	2	3	4	5	6	7	8	9	10
II	Extension Education	Response pattern (Please indicate your score by marking a circle against each item)									
1.	Maintaining rapport with farmers	1	2	3	4	5	6	7	8	9	10
2.	Listen to the views of farmers	1	2	3	4	5	6	7	8	9	10
3.	Act as a resource person	1	2	3	4	5	6	7	8	9	10
4.	Makes field visit to solve problems of farmers	1	2	3	4	5	6	7	8	9	10
5.	Publish extension literature to provide information to the farmers/extension personnel	1	2	3	4	5	6	7	8	9	10
6.	Organize trainings	1	2	3	4	5	6	7	8	9	10

KERALA AGRICULTURAL UNIVERSITY

Dr. S. Mothilal Nehru,
Associate Professor

Department of Agri. Extension,
College of Agriculture, Vellayani,
Thiruvananthapuram-695522
Dated:

Sir/Madam,

Kumari M. Mercy Bella M.Sc. student in Agricultural Extension is working under my guidance, studying the "Performance effectiveness of teachers in the agricultural colleges of Kerala Agriculture University".

She has identified the teachers who have offered courses for the undergraduate students, and you have been identified as one of the respondent.

The information requested here is purely for research purpose. It is not aimed at any particular individual and will be kept confidential. I therefore request you to kindly spare your valuable time to provide information required in the schedule.

Thanking you,

Yours sincerely,

S. Mothilal Nehru

QUESTIONNAIRE - III

1. Name of the respondent : _____
2. Sex : Male / Female
3. Designation : Asst. Prof. / Assoc.Prof. / Prof.
4. Educational status : B.Sc/ M.Sc/ Doctors degree/ Post Doctors degree/ others (specify)
5. Professional experience : _____ years
6. Trainings undergone : _____

Sl.no	Name of the course(s)	Place	Duration (in days)
1.			
2.			
3.			
4.			
5.			

7. No. of seminars/symposium attended : _____
8. No. of publications : _____
 - i. Popular Articles : _____
 - ii. Research Articles : _____
 - iii Books/Text /Manual:
 - a. As an editor : _____
 - b. Contributed chapters: _____
9. Awards received, If any
 - i. State level :
 - ii. National level :
 - iii International level :

- 10 Your contributions to the institution
 - i.
 - ii.
 - iii.

11. No of Patents registered : _____

- 12 Membership in professional bodies:

Sl.No	Institutions	Office bearers	Life Member	Annual Member

13. Research Contributions:

Sl.No	KAU Projects		External aided projects	
	As P. I.	As P. A.	As P. I.	As P. A.
Completed				
On going				
Proposed				

P.I. =Principle Investigator; P.A. =Project Associate.

14. Research Guidance:

No. of Students	As Major advisor	As Member
No. of PhD students		
No. of MSc students		

Factors influencing the performance effectiveness of teachers

The following are the few important factors influencing the performance effectiveness. Kindly indicate your response on a ten point continuum ranging from one to ten. (Here the score 'one' indicates the least influencing factor and the score 'ten' indicates the most influencing factor)

1. Factors at organizational level

Sl. NO	Factors	Response pattern (Please indicate your score by marking a circle against each item)									
		1	2	3	4	5	6	7	8	9	10
1.	Recognition and reward	1	2	3	4	5	6	7	8	9	10
2.	Fair and impartial administration	1	2	3	4	5	6	7	8	9	10
3.	Facilities and resources	1	2	3	4	5	6	7	8	9	10
4.	Job security	1	2	3	4	5	6	7	8	9	10
5.	Scope for job enrichment	1	2	3	4	5	6	7	8	9	10
6.	Job status	1	2	3	4	5	6	7	8	9	10
7.	Salary structure	1	2	3	4	5	6	7	8	9	10
8.	Freedom for expression	1	2	3	4	5	6	7	8	9	10
9.	Career development opportunity	1	2	3	4	5	6	7	8	9	10

2. Factors at individual level

Sl. NO	Factors	Response pattern (Please indicate your score by marking a circle against each item)									
		1	2	3	4	5	6	7	8	9	10
1.	Job satisfaction	1	2	3	4	5	6	7	8	9	10
2.	Job involvement	1	2	3	4	5	6	7	8	9	10
3.	Self confidence	1	2	3	4	5	6	7	8	9	10
4.	Job perception	1	2	3	4	5	6	7	8	9	10
5.	Achievement motivation	1	2	3	4	5	6	7	8	9	10
6.	Leadership	1	2	3	4	5	6	7	8	9	10
7.	Positive thinking	1	2	3	4	5	6	7	8	9	10
8.	Sociability	1	2	3	4	5	6	7	8	9	10

Constraints:

The following are the constraints identified which affect the performance effectiveness of teachers. Kindly indicate your response on a ten point continuum.

Constraints	Relevancy in KAU context (Here one indicates the least relevant constraint and ten indicates the most relevant constraint)										Importance (Here one indicates the least important constraint and ten indicates the most important constraint)									
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
1. Excessive work load	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
2. Lack of Career development opportunities.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
3. Belated disbursement of salary and other allowances	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
4. Lack of incentives and rewards for better performance.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
5. Lack of opportunities for job enrichment	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
6. Lack of team work in research/extension activities.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
7. Inadequate support for research/extension activities	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
8. Inadequate Administrative support.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
9. Poor interpersonal relationship among employees.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
10. Excessive dependence on funding agency oriented research.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
11. Adhocism in policy formulation and its implementation.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
12. Cumbersome procedures of office administration.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
13. Poor accountability and responsibility on the part of university administration	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
14. Inadequate authority in exercising duties and responsibilities	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
15. Too much individualism and echoism among teaching communities	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
16. Professional management principles is not followed in university	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
17. Research agenda prioritization without considering farmers problem	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
18. Absence of scientific methodology for assessing and quantifying the programme in extension education activities.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
19. Political interference in day-to-day activities.	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10

Date:

Signature:

**PERFORMANCE EFFECTIVENESS OF TEACHERS
IN THE AGRICULTURAL COLLEGES OF
KERALA AGRICULTURAL UNIVERSITY**

M. MERCY BELLA

**Abstract of
Thesis submitted in partial fulfillment of the requirement
for the degree of**

Master of Science in Agriculture

**Faculty of Agriculture
Kerala Agricultural University, Thrissur**

2006

**DEPARTMENT OF AGRICULTURAL EXTENSION
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ABSTRACT

The study entitled "Performance effectiveness of teachers in the agricultural colleges of Kerala Agricultural University" was undertaken to assess the performance effectiveness of teachers. It also aimed to delineate the factors that influencing the performance effectiveness of teachers and also to identify the constraints to make suggestion for enhancing their performance effectiveness.

Performance effectiveness was the dependent variable while the independent variables, at organizational level and at individual level were assessed. The organizational factors included recognition and reward, fair and impartial administration, facilities and resources, job security, scope for job enrichment, job status, salary structure, freedom for expression and career development opportunity. The individual factors included job satisfaction, job involvement, self-confidence, job perception, achievement motivation, positive thinking, leadership and sociability.

The study was conducted in the three agricultural colleges of Kerala Agricultural University. A sample of sixty respondents was selected using probability proportionality size sampling. Data were collected through well structured questionnaires.

The study revealed that the overall performance effectiveness of teachers were towards the better side. Most of the factors at organizational level and at individual level showed positive and significant relationship.

The distribution of respondents based on profile characteristics was found non significant with their performance effectiveness.

The major constraints faced by the respondents were the excessive dependence on funding agency oriented research, cumbersome procedures of office administration, lack of team work in research/extension activities, research agenda prioritization with out considering farmers problem, poor accountability and responsibility on the part of university administration and inadequate administrative support. Hence for enhancement of their performance effectiveness, application of modern principles of management, decentralization of administration, leadership in managerial efficiency and scientific quantification of work performance can be suggested.



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