AN ANALYSIS OF THE HUMAN RESOURCE DEVELOPMENT CLIMATE PREVAILING IN KERALA AGRICULTURAL UNIVERSITY

By

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THESIS

Submitted in partial fulfilment of the requirement for the degree

Master of Veterinary Science

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MANNUTHY, THRISSUR - 680651
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1999

CERTIFICATE

Certified that this thesis entitled **"An Analysis of the Human Resource Development climate prevailing in Kerala Agricultural University"** is a record of research work done independently by **Sri.R. Senthilkumar**, under my guidance and supervision and that it has not previously formed the basis for the award of any degree, fellowship or associateship to him.

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I hereby declare that this thesis entitled **"An Analysis of the Human Resource Development climate prevailing in 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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We, the undersigned members of the Advisory Committee of **Sri. R. Senthilkumar,** a candidate for the degree of **Master of Veterinary Science in Extension,** agree that the thesis entitled **"An Analysis of the Human Resource Development climate prevailing in Kerala Agricultural University"** may be submitted by Sri.R. Senthilkumar, in partial fulfilment of the requirement for the degree.

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ACKNOWLEDGEMENT

Words fail to express my sincere gratitude to Dr.P.J.Rajkamal, Associate Professor, Department of Extension, College of Veterinary and Animal Sciences, Mannuthy. He was a model par excellence in fulfilling his role as the Chairman of my advisory committee. His enthusiasm, punctuality, wise counsel, heuristic approach and parental support, etc. enabled to chisel out this work from my naive experiences. I thank him very much.

I also greatly acknowledge the guidance and encouragement given by Dr.M.R.Subhadra, Associate Professor and Head, Department of Extension, College of Veterinary and Animal Sciences, Mannuthy.

Thanks to Dr.S.S.Anil, Assistant Professor, Department of Extension, College of Veterinary and Animal Sciences, for his sincere guidance and encouragement.

I would like to specially thank Smt.U. Narayanikutty, Assistant Professor (S.G.) and Head, Department of Statistics for helping me in statistical analysis and for her constant support.

My profound thanks to Dr.P.S.Pushkaran, Professor (Retd.), Dr.V.Raju, Professor (Retd.), Dr.R.S.Jiji, Assistant Professor, Department of Extension, for their keen interest in this work and constructive critisism.

I thank Dr.S. Sulochana, Dean, College of Veterinary and Animal Sciences, Mannuthy for providing all facilities for the study.

The help rendered by Smt.Shantha Bai and Sri.Prasad, Computer Programmers, and other staff members of Dept. of Statistics, College of Veterinary and Animal Sciences is appreciated.

My sincere thanks to Dr.Veerakumaran, Assistant Professor, Smt.Shylaja and Smt.Lekha, Librarians, College of Co-operation, Banking and management, for helping me in availing necessary study material.

Helpfulness comes from heart. I express my unreserved gratitude to Dr.Elizabeth K.Syriac, Assistant Professor (S.G) RARS, Kumarakom for her immense help in collecting data. The help rendered by Dr.P.V.Prabhakaran, Professor, Dr.F.M.H.Khaleel, Associate Professor, College of Horticulture and Dr.Alexander George, Associate Professor, Communication Centre is unforgettable.

The help extended by Dr.L.Manjunatha, since my inception is memorable in all walks of my life. He has been not only my best friend but also as a critic. I express my unreserved thanks to him. It is grateful to remember the sisterly help given by my colleague Dr.Reeja George from the beginning of my post graduate study. I admire Dr.T.P.Sethumadhavan for his briskness and helpfulness. The enjoyable moments with Dr.C.Pradeep were worth mentioning.

At one point or other all the staff of the Department of Extension were involved in this endeavour. I thank them all.

I also take this opportunity to thank Dr.A.Thirunavukkarasu, Dr.P.Senthilkumar and Dr.A. Gopinathan, P.G. students, for their immense voluntary help during my research work, although such a note would sound formal.

Help rendered by my friends Dr.S.Ramamurthy, Dr.S.Senthil Kumar, Dr.Jeetendra Shetty and other inmates of P.G.Hostel cannot be simply forgettable. The help extended by Ms.Amudha, GKVK, Bangalore and Mrs.Shanthi, was just great.

I cannot fail to mention the debt of gratitude I owe to Dr.R.Kanagarajan Anna, Deputy Manager, Salem Dairy and Dr.R.Vasumathi Kanagarajan Akka, Lecturer, Mohan Kumaramangalam Government Medical College, Salem for their invaluable moral and financial support and compassion for me.

I reckon with love, the virtuous support given by my brother Sri.Raju, Mother and Annie, the constant encouragement of whom has always been a source of inspiration throughout my life.

I immensely thank Sri.Joy, JMJ Computer Centre, Thottappady for prompt and timely typing of the thesis. The response and co-operation rendered by the scientists of Kerala Agricultural University is greatly acknowledged.

Finally I have been bowed to Almighty Lord Namakkal Anjaneya for His spiritual support.

R.SENTHILKUMAR

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INTRODUCTION

Human resources are the most important resources especially to organizations. Nowadays all the organizations, whether industry or service, have realized the importance of human resources and are striving hard to develop it. According to Rao and Abraham (1988) Human Resource Development (HRD) is a process by which the employees of an organization are helped in a continuous and planned way, to:

(1) acquire or sharpen capabilities required to perform various functions associated with their present or expected future roles;
(2) develop their general capabilities as individuals and discover and exploit their own inner potentials for their own and organizational development purposes; and
(3) develop an organizational culture in which superior-subordinate relationship, team work and collaboration among subunits are strong and contribute to the professional well-being, motivation and pride of employees.

The developmental environment of an organization is dependent on how well this process of HRD is going on. Employees will have their own impression about this developmental environment, borne out of their rational thinking. Such perceptions of employees in general reflect the Human Resource Development climate (HRD climate).

Without continuous development of competencies in people, an organization is not likely to achieve its goals. If there is no development climate and no incentives for development, people are not likely to develop and it causes frustration among the employees and alienate them from their job. The cumulative effect of frustration and alienation result in low morale and lowered employee's

commitment to the organization and job. In a promoting, facilitating and enabling climate only employees' productivity could be achieved.

While much of systematic work is being done in the direction of HRD climate in the fields of industry and business, educational institutions dealing mostly with human resources, has unfortunately neglected the subject of HRD. Agricultural universities are no exception. Perhaps HRD is more relevant to agricultural universities since the ultimate beneficiary of the organizational functions viz., teaching, research and extension, is the farming community.

HRD assumes greater significance today in the context of globalisation of our economy. Higher competence of our human resources is being recognized as a prime necessity for existence in the changing world. Super-specialisation and sharpening of the skills and its efficient translation in work place are being emphasized now. Further, although newer and newer technologies of farm production and application are at the door-step of the end users, mostly farmers, many appropriate technologies are yet to be generated and those already available need reassessment and refinement. Therefore, it becomes imperative for the scientists of a research organization like an agricultural university to equip and empower themselves for better performance.

Studies on HRD climate pertaining to scientists of agricultural universities are conspicuous by their absence. Thus, this is high time for us to examine the scientists' perception of the HRD climate, the strength of various dimensions of HRD climate etc., prevailing in Kerala Agricultural University (KAU). The present study was therefore conducted with the following objectives.

1. To understand the scientists level of satisfaction of HRD climate.
2. To understand the strength of various dimensions of HRD climate.
3. To draw inferences and give suggestions for the betterment of HRD climate.

REVIEW OF LITERATURE

REVIEW OF LITERATURE

2.1 Personal/Independent variables

2.1.1 Educational attainment

The study on job satisfaction by Singh and Shresta (1975) indicated no significant association between educational level of technical assistants of development department of Nepal and their job satisfaction.

Chen (1977) studied school teachers of Republic of China and found a significant negative correlation between educational level and job satisfaction.

Sigol (1978) in his study about job satisfaction of Nida University teachers found that there was a significant positive relationship between the level of education and job satisfaction.

Onijohn (1980) reported that University teachers with higher qualification were more satisfied in their job.

Esmail (1981) observed a negative correlation between job satisfaction and the level of education of industrial workers.

2.1.2 Experience

Hunsaker (1978) observed no relationship between job experience and the perceived organizational climate of middle school teachers.

Mitchell (1979) found no significant difference between the organizational climate as perceived by experienced and inexperienced teachers.

Garcia (1979) did not observe a significant relationship between the organizational climate as perceived by the College teachers and their experience.

Siddaramaiah and Rajeev (1993) found that job experience was not significantly related to organizational climate as perceived by the teachers as well as researchers of Kerala Agricultural University.

Tyagi and Tripathi (1996) observed that the experience in the post to be negatively and non-significantly correlated with job satisfaction. However a non-significant relationship existed between the total experience and job satisfaction of the scientists of G.B. Pant University.

2.1.3 Age

Chen (1977) reported a positive correlation between age and job satisfaction of school teachers in Republic of China.

Sandhu and Singh (1977) in their study reported that a significant positive correlation existed between age of AEOs and their level of job satisfaction.

Sigol (1978) in his study of job satisfaction of University faculty members could found no influence of age on job satisfaction.

Simmons (1978) observed a significant positive correlation between age and job satisfaction of community school principals.

Babykumari *et al.* (1998) while studying factors affecting job performance of farm scientists, found that there was a non-significant association between age and job performance.

2.1.4 Gender

Goble (1977) reported that female workers in a broiler processing unit were more satisfied in their job than male workers.

Smith (1977) found no significant difference in the job satisfaction of male and female college staff.

Ganesan and Balakrishnan (1979) in their study of job satisfaction as a function of sex concluded that over all job satisfaction of female was higher than that of males.

Pratap and Gupta (1986) reported that female employees of nationalised banks of Meerut district were more satisfied in their job than their male counterparts.

2.1.5 Cadre

Hughes (1975) reported that organizational climate was consistent across various hierarchial levels in industrial organizations.

Singh *et al.* (1977) studied the job satisfaction of three block level extension functionaries of Bihar and found that Project Executive Officers had significantly higher mean job satisfaction score as compared to Block Agricultural Officers and Village Level Workers.

Sigol (1978) in his study about job satisfaction of Nida University teachers reported no significant influence of cadre on job satisfaction.

Baccus (1979) in his study on perceived organizational climate of principals and subordinates at the university level, observed no relation between individual perception of climate and position held in the hierarchy.

Onijohn (1980) found a significant difference in the job satisfaction of University teachers of various cadres.

Esmail (1981) observed that cadre in an organization was positively related to job satisfaction of semi professional female employees.

2.1.6 Number of training received

Rao and Sohal (1980) in their study among Veterinary Assistant Surgeons found that the number of training received was not associated with level of job satisfaction.

Hegde and Chennegowda (1989) observed that level of training did not influence job performance of Agricultural Assistants.

Ray (1996) reported that there was a positive and non significant correlation between the inservice training received by the Veterinary Assistant Surgeons and their job satisfaction.

Keshava and Kumar (1997) observed that majority of agricultural university teachers (68.47%) had not attended any in-service training in the last five year at the time of study.

Babykumari *et al.* (1998) found that a non-significant association between trainings undergone and job performance of farm scientists existed.

2.1.7 Number of publication

Singh and Kumar (1996) opined that it was common to find researchers with more than 200 publications and cautioned that pressure on quantity was detrimental to quality.

Keshava and Kumar (1997) studied professional activeness of agricultural university teachers and found that 66.67 per cent of the scientists had

not published articles in national journals as single author and 90.09 per cent of the scientists had not published any article in international journals as single author.

2.1.8 Number of projects handled

Singh and Singh (1992) studied job expectation of ICAR women scientists and found that research took the lead as the most preferred job, followed by teaching, administration and extension.

Keshava and Kumar (1997) found that majority of the scientists working in G.B. Pant University handled projects of ICAR (61.63%) followed by University or State Government (28.93%), international organizations (6.30%) and input manufacturing agency (3.14%).

2.1.9 Number of student guided

Keshava and Kumar (1997) observed that 34.23 per cent of scientists of an agricultural university had guided two M.Sc./Ph.D. students, 30.63 per cent had guided none, 25.23 per cent had guided one student, 7.21 per cent had guided three students, 1.80 per cent guided four students and 0.90 per cent guided five students.

2.1.10 Number of seminars, conferences, symposia etc. attended

Satapathy and Choudhury (1990) identified participation in professional seminars as one of the factor associated with job satisfaction. He further opined that this variable was closely related to output of the scientists.

Keshava and Kumar (1997) opined that inservice training and participation in seminars, symposia, etc. provided opportunities for teachers to be up-to-date.

2.2 Human Resource Development climate

2.2.1 Management philosophy

Sankar (1984) held the view that Human Resource Development is a development oriented planning effort in the personal area and was basically concerned with the development of human resources in the organization, improving the existing capabilities and acquiring new capability for achievement of corporate and individual goals.

Rao and Pereira (1986) surveyed 53 industrial organisations and found that 59 per cent of them did not have explicity stated philosophy about their human resources. They emphasised the role of chief executives in valuing their employees. He should value them as the greatest resources the organisation has. He should have a belief that competencies can be developed in people at any point of time and that developing competencies in the employee is good for the organisation and, creating healthy work culture is the responsibility of the organization.

Babu and Reddy (1990) found no association between high job involvement and positive attitude towards management of blue collar workers of industries.

Rao (1991) stated that the attitude of top management towards their employees was quite often reflected in their emphasis on human resources in annual reports, policy statements, etc. He opined that organization that does not mention any thing about its people in its annual report or policy statements is less likely to treat them as assets that can be developed for the benefit of the organization and its growth.

Rao (1991a) opined that superiors have the responsibility to help the subordinate in identifying opportunities; this assumes significance because development of the individual is instrumental in benefiting the organization. He also

held the view that besides providing a positive emotional and professional climate for the development of employees, superiors should ensure open and supportive feed back, a climate of trust, empathy and mutuality to facilitate development.

2.2.2 Training

According to Rao (1991b) training has been used most often as the only mechanism for developing human resources in the education sector.

Sharma (1995) opined that companies should carefully device the standards for selecting employees for training even if companies primarily consider their own benefit, because fairness in selection boost employees morale. He also opined that companies should formulate different training methods to various categories of personnel.

Rathore (1995) emphasised that equipments and facilities and adequate finances, etc. are prerequisites for organisation of an effect HRD programme.

Verma and Garg (1995) emphasised that care should be taken to provide training which is suitable to work and work environment, otherwise the trained employee cannot contribute anything towards the success of the movement. Batra and Bhatia (1995) studies the HRD in public enterprises and found that in many public sector enterprises no separate budget was sanctioned for training activities and only 40 per cent organizations out of the total public sector units had provisions for training budget.

2.2.3 Career planning and development

Rao (1991a) stated that feed back from superiors helps employees become more and more aware of one's strength and weaknesses. So also, superiors should help employees identify the opportunities within an outside the organization.

Rao (1991b) opined that career opportunities and rewards are important factors in providing a development climate in educational institutions and agencies and if there is no development climate and no pressure or incentives for development, people are not likely to develop.

Singh (1995) studied the opinion of the managers of certain organizations and found that better opportunity, more authority and responsibility, freedom of work, image of company and excellent working environment were the main considerations for bearing the previous organizations and staying with the present organizations.

2.2.4 Manpower planning and forecasting

According to Rao (1991) manpower planning is human resource planning and it is the process of determining the human resource requirements in terms of number. Kind, place and time for doing the right kind of jobs, which result in long run maximum individual and organisational benefit. It involves projecting and forecasting present personnel function into the future which would be affected by organizational plans and environment, both internal and external.

2.2.5 Performance appraisal

Beach (1975) holds the view that the employees appraisal and performance appraisal are for the development of individual and for his improved performance on the job.

Busch and Lacy (1983) opined that government scientists work within the most constrained situation. According to them they have less choice in their selection of research problems, carry a narrower range of non research responsibilities and are evaluated by a somewhat narrower set of criteria.

Rao (1991a) opined that periodic review of performance, feed back and planned experimentation become important factors in development.

Rao (1991b) indicated that HRD can be effected through performance appraisal systems that are designed to promote employee development in their present role.

Rao (1991f) opined that the potential of performance appraisal systems as instruments of HRD has not yet been realized in government systems.

Verma and Garg (1995) opined that performance appraisal provides a mechanism for identification of merit and deficiencies observed in an employee in relation to his job performance.

2.2.6 Placement

Singh and Singh (1992) studied the job expectation, performance and satisfaction of women scientists working in Agricultural Research Services and found that 11.54 per cent desired to leave for a similar job, citing unsuitable posting as the reason.

Verma and Garg (1995) while studying HRD in co-operative sector noted that organisations must ensure not only right number of people but also right kind of people in the right place at the right time.

2.2.7 Communication

Willits (1967) in his study found that the better performing companies had less guarded upward flow of ideas.

Francis *et al.* (1982) reported that effective interaction among scientists is an indispensable measure for success.

Busch and Lacy (1983) studied agricultural scientists of United States and found that modes of formal scientific communication, such as journals, bulletins and books, were essential resources in their research and informal communication was relatively infrequent and limited primarily to contact with scientists in one's own department.

Prasad and Bannerjee (1994) opined that knowledge is not adequate for managerial success, but it also requires ability to communicate clearly, timely and accurately.

They also observed that telephone calls, telex and fax messages are some of the important means of communication and interruption to this may cause unavoidable delay in transmission of information.

2.2.8 Team work

Vaid and Kumar (1995) found that 34% of industrial workers in Punjab textile industry had high level of satsifaction, 38 per cent had medium level of satisfaction and 28% had low level of satisfaction with regard to their relationship with co-workers at the work place.

Rao (1991c) opined that in order to promote more collaboration and team work in large organisation, it is useful to reward groups in teams for their contribution.

Siddaramaiah and Rajeev (1993) observed that team spirit was one of the dimensions perceived as important by teachers and researchers of Kerala Agricultural University.

2.2.9 Transfer

Rao (1991c) stated that in the organisations having a wide geographic coverage, transfer of employees from one place to another becomes necessary. Most employees prefer jobs in well-developed cities and towns or in their own home towns and such preferences are met when their performance is good.

Singh and Singh (1992) reported that women scientists in the Indian Council of Agricultural Research felt inflexibility of office hours, postings and transfers as some of the major problems they were facing.

Amrik-Singh (1995) opined that deliberate and planned rotation and transfer help in the development of people and success of these will depend on how far rotation and transfer are perceived, accepted and utilised as inputs for development.

2.1.10 Promotion

Rao and Sohal (1980) revealed from their study that the Veterinary Assistants in Andra Pradesh considered recognition and self esteem as the top most factors associated with job satisfaction. They expressed that better and quicker chances of promotion and working conditions were important factors for job satisfaction.

Bhangoo and Dhaliwal (1995) studied four units of cotton textile industry employees regarding the reasons for getting promoted. They ranked favour of the manager as the first reason and seniority as the second reason. When asked about the preferred criteria for promotion, they ranked seniority at the first place and merit at the second place. They also found that most of the employees were dissatisfied while managers were satisfied with the promotion policies followed.

Vaid and Kumar (1995) studied job satisfaction among industrial workers and found that 22 per cent had high satisfaction, 36 per cent had medium satisfaction and 42 per cent had low satisfaction with regard to promotional opportunities.

2.2.11 Rewards

Gupta and Sharma (1971) opined that recognition was a motivating factor for scientists' productivity.

Samanta (1979) found that most of the Village Level Workers of Meghalaya were only somewhat satisfied with incentives, rewards and technical guidance.

Sen and Ahmed (1980) opined that any research organisation where scientific creativity, autonomy, recognition and credit were either denied or distributed unfairly would have a great deal of conflict to be taken care of.

Venkataprasad (1982) reported that the Seed Farm Managers of Karnataka state had low level of job satisfaction with regard to the kind of recognition, incentives, promotional opportunities and salary prevailed in the organisation.

Rao (1991) reported that certificates of appreciation, newsletter announcements, special previleges, desired training etc. were followed in some organisations as rewards.

2.2.12 Organisational culture

Rao (1991d) opined that to acquire, sharpen and use the capability of employees continuously an 'enabling organisational culture' is essential and noted

that when employees used their initiative, took risk, experimented, motivated and made things happen, the organisation was said to have an enabling culture.

Rao (1991e) indicated that when employees feel free to discuss various issues and problems affecting the branch and they work in uninhibited way; when the employees trust each other; when employees tend to take the initiative and more things happen on their own; when the employees collaborate with each other; when there is little gap in what the employees say they will do and what they actually do; and, when people give and receive feed back and make efforts to develop their capabilities, the HRD climate is said to be good.

METHODOLOGY

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3.1 Sampling and data collection

A purposive sampling procedure and questionnaire method of data collection were adopted. Therefore, structured questionnaires were sent to all of the 638 scientists of Kerala Agricultural University who had put in atleast an year of service. A minimum of 60 respondents each were stipulated from the main, regional and outstations of the University. Main stations were the faculty headquarters, regional stations were the Regional Agricultural Research Stations (RARSs) and Krishi Vigyan Kendras (KVKs) within these campuses and outstations were all research stations which are affiliated to RARSs as well as KVKs located outside the campuses of RARS.

Ultimately, 262 respondents in all (41.07%) returned the filled in questionnaires and they consisted of 141 scientists from main stations, 61 from regional stations and another 60 from outstations.

Further, the overall sample represented all the five cadres of scientists, viz., professors, associate professors, assistant professors (Selection Grade), assistant professors (Senior scale) and assistant professors numbering 30, 97, 32, 36 and 67 respectively and the number of men scientists were 139 and women scientists 123.

3.2 Selection of variables

3.2.1 Independant/personal variables

Ten independant/personal variables were selected and studied. These variables were the following.

1. Educational attainment
2. Experience

3. Age
4. Gender
5. Cadre/Designation
6. Number of trainings received
7. Number of publications
8. Number of projects handled
9. Number of students guided
10. Number of seminars, symposia, conferences, etc., attended.

3.2.2 Dependant variable

The dependant variable selected for this study was the Human Resource Development (HRD) climate prevailing in the Kerala Agricultural University, pertaining to the scientists. The various constituent factors or dimensions of HRD climate were identified after reviewing literature and discussing with management experts and that were relevant to the agricultural university set up.

The 12 dimensions identified were

1) Management philosophy
2) Training
3) Career planning and development
4) Manpower planning and forecasting
5) Performance appraisal
6) Placement
7) Communication
8) Teamwork
9) Transfer
10) Promotion
11) Rewards
12) Organisational culture

Table 1. Variables and their measurement

Variables	Measurement tool
I. Personal	
1. Educational attainment	Structured schedule
2. Experience	,,
3. Age	,,
4. Gender	,,
5. Cadre	,,
6. Number of trainings received	,,
7. Number of publications	,,
8. Number of projects handled	,,
9. Number of students guided	,,
10. Number of seminars, symposia, conferences, etc. attended	,,
II. Dependant	
HRD climate	Schedule developed for the study

3.3 Operationalization and measurement of variables

3.3.1 Independant variables

3.3.1.1 Educational attainment

It referred to the acquisition of a professional degree by the respondents. Respondents who possessed the basic qualification i.e., a master degree in the relevant subject were given a score of one; those who possessed a diploma in addition to a master degree were given a score of two and those who possessed a doctorate were given a score three.

3.3.1.2 Experience

Experience of the respondents was operationalised as the total number of years completed in KAU at the time of study.

3.3.1.3 Age

Age was operationalised as the number of years completed by the respondents at the time of study.

3.3.1.4 Gender

Both genders were studied. Scores of one and zero ere given respectively to male and female respondents.

3.3.1.5 Cadre

Cadre was operationalised as the official designation held by the respondents at the time of study. The different cadres studied were assistant professor, assistant professor (S.S.), assistant professor (S.G.), associate professor and professor. Scores of one, two, three, four and five were given respectively to the above cadres.

3.3.1.6 Number of trainings received

It referred to number of trainings attended by the respondents at the time of study. Training included both national training as well as international training received. A score of one was given to every national training the respondent received and two for every international training. Total score for the training received, of a respondent, was arrived by summing up the scores of national and international trainings.

3.3.1.7 Number of publications

It referred to number of publications the respondents possessed at the time of study. Publications included popular articles, research articles, monographs and books published by the respondents. Scoring was done as follows:

Publication	Score
1. Popular article	1
2. Research article	2
3. Monograph	3
4. Book	4

On the basis of the above scoring procedure the total score of each and every respondent was calculated.

3.3.1.8 Number of projects handled

It referred to the number of projects handled by respondents at the time of study. It included KAU projects and externally funded projects. Scores of one and two were given respectively for KAU and externally funded projects. The total score of each respondent was calculated on the basis of the above scoring procedure.

3.3.1.9 Number of students guided

It referred to number of students guided at the time of study. It included both postgraduate and doctorate students guided by the respondents. A score of one was given to each postgraduate student guided and two to each doctorate student guided. The scores were summed up to indicate the respondents' total score.

3.3.1.10 Number of seminars, symposia, conferences, etc. attended

It referred to number of seminars, symposia, conferences, etc., attended by the respondents at the time of study. It included the seminars, symposia, conferences, etc., attended both in India and in foreign countries. Each seminar,

symposium, conference, etc., attended within India was given a score of one and those attended outside India was given a score of two. The scores were summed up to indicate the respondent's total score.

3.3.2 Dependant variable

In the present study, HRD climate was operationalised as KAU scientists perception of the developmental environment prevailing in the University.

3.3.2.1 Operational definitions

The dimensions of HRD climate are operationally defined as follows.

a) Management philosophy

It is the belief or attitude of the management towards development.

b) Training

It is the extent scientists got to improve their theoretical and practical knowledge in various aspects of their job requirement.

c) Career planning and development

It is the discovery and development of talents, and planned deployment and redeployment of these talents.

d) Manpower planning and forecasting

It is ensuring availability of men in terms of quality and quantity as and when they are required over a period of time.

e) Performance appraisal

It is objective assessment of performance of the employee on a continuous basis to help him understand his tasks and the means of achieving them, identify the

strengths and weaknesses relevant to his job, and acquire new competencies for self development in the job.

f) Placement

It is the determination of the job for which a selected candidate is best suited and assigning that job to him.

g) Communication

It is the transfer of clear and timely messages and prompt feedback to the respondents.

h) Teamwork

It is the group performance, meeting both the task objectives and the socio-emotional processes within the group.

i) Transfer

It is transfer of scientists from one station to other to meet the changing needs of the University and scientists welfare.

j)Promotion

It is an advancement to positions, carrying better remuneration and higher responsibilities for scientists.

k)Rewards

It is giving reinforcement to encourage the acquisition and application of positive attitudes and skills.

l) Organisational culture

It is a core set of assumptions, understandings and implicit rules that govern day-to-day behaviour in the work place.

3.3.2.2 Content validity

The content validity of the items measuring HRD climate was assured by including contents representing the various dimensions of HRD climate. The items selected were based on extensive review of literature and discussions with experts in the field of management. The items thus obtained were then subjected to the opinion of a panel of judges to find out whether the items selected were relevant or not. Finally, 62 items under 12 dimensions of HRD climate were selected for the study. Thus content validity was ensured.

Relevancy rating

Under each dimension of the HRD climate the items which were important in the context of an agricultural university set up were developed after thorough reviewing of literature. The schedule thus developed was given to a panel of 30 extension scientists and management experts to found out the relevance of each item. They were asked to rate each item on a four point continuum, viz. 'very relevant', 'relevant', 'somewhat relevant' and 'not relevant' with weightages of 4, 3, 2 and 1 respectively. The item mean score was obtained by summing up the individual scores for the item and dividing that by the number of judges. This was converted to percentage mean score by dividing the item mean score by maximum attainable score and multiplying it by 100.

$$\text{Item mean score} = \frac{\text{Total score for an item}}{\text{Number of judges}}$$

$$\text{Percentage mean score} = \frac{\text{Item mean score}}{\text{Maximum attainable score}} \times 100$$

The mid value of the four point continuum i.e, 2.5 or in other words 62.5 per cent in terms of percentage mean score was fixed as the cut off point for

selecting items. Therefore, those items having a percentage mean score equal to or higher than 62.5 per cent were selected. Accordingly, there were in all 62 items.

3.3.2.3 Quantification of the perception of HRD climate

It was done at three distinct levels, viz.

1. Overall perception of HRD climate
2. Dimension-wise perception and
3. Item-wise perception.

1. Overall perception of HRD climate

In order to quantify the perception of HRD climate, the responses for each item were obtained on a five point continuum, viz., 'Almost always true', 'Mostly true', 'sometimes true', 'Rarely true' and 'Not at all true' with weightages of 5, 4, 3, 2 and 1 respectively for positive statements and in the reverse order for the negative statements.

The HRD climate score of each respondent was computed by summing up the scores given by each respondent for all the 62 items. The minimum and maximum obtainable scores for any respondent were 62 and 310 respectively. On the basis of Delinious - Hodge's cumulative $\sqrt{f}$ method of classification, the respondents were categorised as follows.

1. Favourable
2. Moderately favourable
3. Unfavourable

2. Dimension-wise perception

For obtaining the HRD climate scores for each dimension, the following procedure was followed.

The scores of all respondents to the items under a dimension were added to arrive at a total score. This was divided by the number of respondents. The resultant figure indicated the average HRD climate score for each dimension. The average HRD climate score for each dimension was further divided by the corresponding number of items under it in order to derive the standard mean score.

$$\text{Standard mean score of a dimension} = \frac{\text{Total score}}{(\text{Number of respondents}) \times (\text{Number of items})}$$

Example

$$\text{Standard mean score of the dimension - Management philosophy} = \frac{4892}{262 \times 7} = 2.67$$

On the basis of Delinious-Hodge's cumulative $\sqrt{f}$ method of classification, categorisation of respondents under each dimension was made as follows.

1. Favourable
2. Moderately favourable
3. Unfavourable

3. Individual item-wise perception

The scores of each item across all the respondents were summed up and divided by the number of respondents. This mean score indicated the perception of an item by the respondents.

The mean scores of items and dimensions were converted into percentage mean scores. This was done by taking the maximum scale score attainable for any single item as denominator and the corresponding mean score of that particular item as nominator and multiplying the ratio by 100. However, the maximum scale score

attainable was constant, that was five. This procedure was followed to calculate the percentage mean score for any constituent dimension.

Eg: Conversion of mean score of item No.1 of management philosophy into percentage mean score.

Mean score of item No.1 = 2.31

Maximum score attainable = 5

Percentage score $= \frac{2.3}{5} \times 100$

$= 46.2$

3.4 Statistical tools

The statistical tools used were

1. Arithmetic mean
2. Frequencies and percentages
3. Simple and point bi-serial correlation
4. Hotelling's T-square test
6. 't' test
7. Delinious-Hodge's cumulative $\sqrt{f}$ method of classification

Delinious-Hodge's cumulative $\sqrt{f}$ method was used to classify the respondents. Having arranged the scores into ascending or descending order, several arbitrary classes were formed depending upon the number of classes to be finally obtained.

The upper limit of each class was obtained using the formula

$$U = l + \frac{NK-m}{f} c$$

U = Upper limit of the new class

K = Quartile number

$N = \Sigma\sqrt{f}$

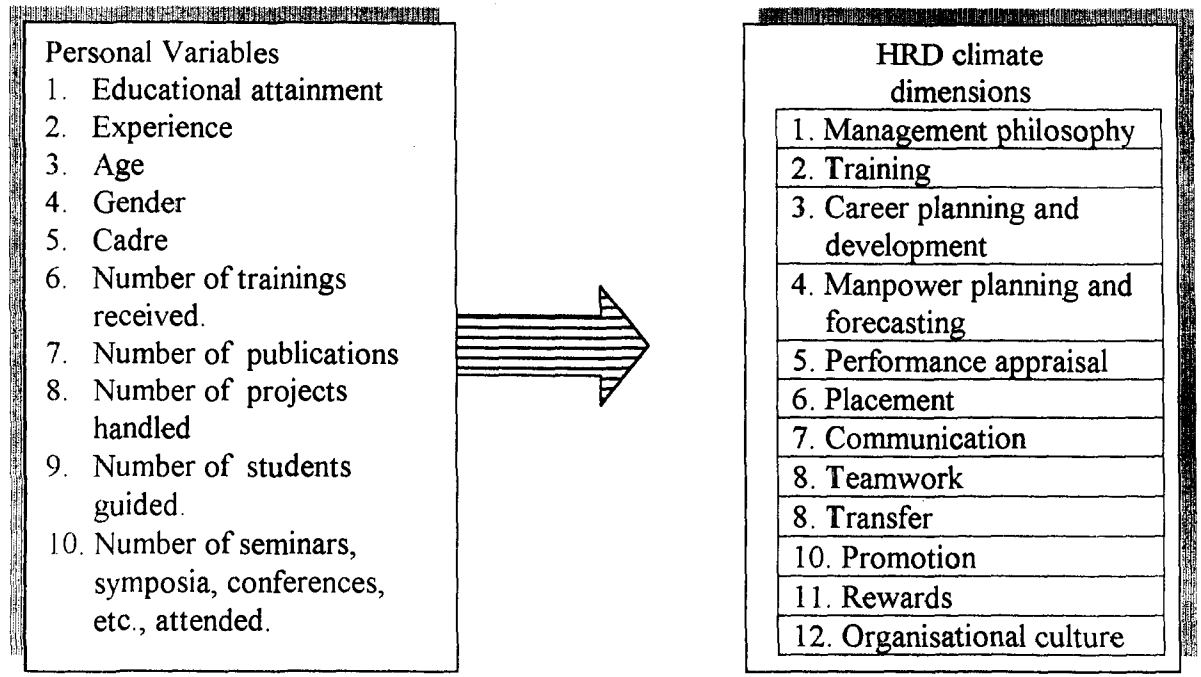
l = Lower limit of the quartile class

n = Cum $\sqrt{f}$ below the quartile class

f = Frequency of the quartile class

c = Class interval of the arbitrary classes.

Fig.1. Conceptual model of the study.



RESULTS

RESULTS

The results of this study are presented under three major headings viz. personal variables, perception of HRD climate and statistical analysis.

4.1 Personal variables

4.1.1 Educational attainment

4.1.2 Experience

4.1.3 Age

4.1.4 Gender

4.1.5 Cadre

4.1.6 Number of trainings received

4.1.7 Number of publications

4.1.8 Number of projects handled

4.1.9 Number of students guided

4.1.10 Number of seminars, symposia, conferences etc. attended

4.2 Perception of HRD climate

4.2.1 Management philosophy

4.2.2 Training

4.2.3 Career planning and development

4.2.4 Manpower planning and forecasting

4.2.5 Performance appraisal

4.2.6 Placement

4.2.7 Communication

4.2.8 Teamwork

4.2.9 Transfer

4.2.10 Promotion

4.2.11 Rewards

4.2.12 Organisational culture

4.1 Personal variables

A detailed analsis of ten selected personal variables were carried out. The results of this analysis are presented below.

4.1.1 Educational attainment

Table 2. Distribution of scientists based on educational attainment

Sl. No.	Qualification	Professors		Associate professors		Assistant Professors (S.G)		Assistant Professors (S.S)		Assistant Professors		Overall	
		n	%	n	%	n	%	n	%	n	%	N	%
1	Ph.D.	27	90	90	92.78	13	40.65	21	58.33	26	38.81	177	67.56
2	Diploma	-	-	11	11.34	3	9.38	-	-	3	4.48	17	6.49

It was evident from Table 2 that majority of the professors (90%) and associate professors (92.78%) had Ph.D qualification. More of (58.33%) assistant professors (S.S) than assistant professors (S.G) (40.65%) had acquired Ph.D qualification. Those assistant professors possessing Ph.D qualification were comparatively lesser (38.81%).

It was seen that 11.34 per cent, 9.38 per cent and 4.48 per cent of associate professors, assistant professors (S.G) and assistant professors respectively acquired a diploma in some relevant educational field. None of the professors and assistant professors (S.S) had acquired such a diploma.

Overall, 67.56 per cent of the scientists possessed Ph.D qualification and 6.49 per cent possessed a diploma in some relevant field.

4.1.2 Experience

Table 3. Distribution of scientists based on experience

Sl. No.	Category	Main stations (year)	Regional stations (year)	Out-stations (year)	Overall (year)
1	Professors	30.15	32.60	27.20	29.98
2	Associate Professors	21.33	19.68	20.30	20.44
3	Assistant Professors (S.G)	20.25	21.00	20.13	20.46
4	Assistant Professors (S.S)	15.44	16.41	14.00	15.28
5	Assistant Professors	9.28	6.51	7.29	7.69

It was seen that (Table 3) on an average professors of main, regional and outstations had put in 30.15, 32.60 and 27.20 years of service respectively. Associate professors of main, regional and main stations had respectively put in 21.33, 19.68 and 20.30 years of service. Assistant professors (S.G) of main, regional and outstations had put in correspondingly 20.25, 21.00 and 20.13 years of service where as assistant professors (S.S) of respective stations had put in correspondingly 15.44, 16.41 and 14.00 years of service. The service put in by assistant professors of main, regional and outstations were 9.28, 6.51 and 7.29 years in that order.

Overall, the professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors had put in 29.98, 20.44, 20.46, 15.28 and 7.69 years of service respectively.

4.1.3 Age

It was noted from Table 4 that the mean age of professors of main, regional and outstations were 55.30, 57.20 and 54.40 years, respectively. The mean

age of associate professors of main, regional and outstations were respectively 46.67, 43.78 and 45.35 years, assistant professors (S.G) of main, regional and outstations had correspondingly mean age of 46.19, 44.75 and 45.13 years. The mean age of assistant professors (S.S) of main, regional and outstations were 41.11, 40.75 and 40.00 years respectively and the corresponding age of assistant professors were 35.50, 33.43 and 36.75 years.

Table 4. Distribution of scientists based on age

Sl. No.	Category	Main stations (year)	Regional stations (year)	Out-stations (year)	Overall
1	Professors	55.30	57.20	54.40	55.63
2	Associate Professors	46.67	43.78	45.35	45.27
3	Assistant Professors (S.G)	46.19	44.75	45.13	45.35
4	Assistant Professors (S.S)	41.11	40.75	40.00	40.62
5	Assistant Professors	35.50	33.43	36.75	35.27

The overall mean age of professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors were 55.63, 45.27, 45.35, 40.62 and 35.27 years respectively.

4.1.4 Gender

Table 5. Distribution of scientists based on gender

Sl. No.	Category	f	%
1	Men	139	53.05
2	Women	123	46.95
	Total	262	100.00

Table 5 indicated that the men scientists were slightly more (53.05%) than that of women scientists (46.95%), in the sample.

4.1.5 Cadre

Table 6. Distribution of scientists based on cadre

Sl. No.	Category	f	%
1	Professors	30	11.45
2	Associate professors	97	37.02
3	Assistant professors (S.G.)	32	12.22
4	Assistant professors (S.S)	36	13.74
5	Assistant professors	67	25.57
	Total	262	100

Table 6 revealed that 11.45, 37.02, 12.22, 13.74 and 25.57 per cent of professors, associate professors, assistant professors (S.G.), assistant professors (S.S) and assistant professors were respectively in the sample.

4.1.6 Number of trainings received

Table 7. Distribution of scientists based on the number of trainings received

Sl. No.	Category	National training				International training			
		Scientists attending national training		Number of national training attended		Scientists attending international training		Number of international training attended	
		f	%	f	$\bar{X}$	f	%	f	$\bar{X}$
1	Professors	27	90.00	93	3.10	2	6.60	4	0.13
2	Associate Professors	93	95.88	282	2.93	16	16.49	25	0.26
3	Assistant Professors (S.G)	26	81.25	82	2.56	2	5.55	2	0.06
4	Assistant Professors (S.S)	27	75.00	71	1.97	1	2.77	1	0.03
5	Assistant Professors	50	74.63	121	1.81	7	10.44	7	0.19
	Overall	223	85.11	649	2.47	28	10.69	39	0.14

A cursory look at Table 7 revealed that among associate professors 95.88% attended national training followed by professors (90%), assistant professors (S.G) (81.25%), assistant professors (S.S) (75%) and assistant professors (74.63). Whereas 16.49% of associate professors attended international training followed by assistant professors (10.44%), professors (6.60%), assistant professors (S.G.) (5.55%) and assistant professors (S.S) (2.77%).

In all, 85.11 per cent of the scientists attended national training and 10.69 per cent scientists attended international training. The table also revealed that the mean number of national training received by professors, associate professors, assistant professors (S.G) assistant professors (S.S) and assistant professors were respectively, 3.1, 2.93, 2.56, 1.97 and 1.81. Nevertheless, the corresponding figures pertaining to international training were 0.13, 0.26, 0.06, 0.03 and 0.19.

The overall means of national and international trainings attended by the scientists of the study were 2.47 and 0.14 respectively.

4.1.7 Number of publications

Table 8 revealed that 92.78 per cent of associate professors published popular articles followed by professors (86.66%), assistant professors (S.S) (80.55%), assistant professors (76.12%) and assistant professor (S.G) (65.62%). The mean number of popular article published by professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors were 26.8, 12.77, 15.50, 6.14 and 7.13 respectively. In all 82.82 per cent of scientists published popular articles and the mean number of them was 12.36.

All the professors, 97.93 per cent of associate professors, 96.87 per cent of assistant professors (S.G), 86.11 per cent assistant professors (S.S) and 94.02 per cent of assistant professors published research articles and the mean number of research articles published by them were 30.93, 23.16, 12.28, 13.33, 7.75

Table 8. Distribution of scientists based on type of publication

Sl. No.	Category	Popular articles				Research articles				Monographs				Books			
		Scientists publishing popular articles		Number of popular articles published		Scientists publishing research articles		Number of research articles published		Scientists publishing monographs		Number of monographs published		Scientists publishing books, booklets, manuals, etc.		Number of books published	
		f	%	f	$\bar{x}$	f	%	f	$\bar{x}$	f	%	f	$\bar{x}$	f	%	f	$\bar{x}$
1	Professors	26	86.66	804	26.80	30	100.00	928	30.93	4	13.33	5	0.17	14	46.66	23	0.77
2	Associate Professors	90	92.78	1239	12.77	95	97.93	2247	23.16	14	14.43	29	0.30	31	31.95	52	0.54
3	Assistant Professors (S.G)	21	65.62	496	15.50	31	96.87	393	12.28	4	12.50	6	0.19	12	37.50	21	0.66
4	Assistant Professors (S.S)	29	80.55	221	6.14	31	86.11	480	13.33	2	5.55	2	0.06	9	25.00	13	0.36
5	Assistant Professors	51	76.12	478	7.13	63	94.03	519	7.75	5	7.46	10	0.15	10	10.00	17	0.25
6	Overall	217	82.82	3238	12.36	250	95.42	4567	17.38	29	11.07	52	0.19	76	30.22	126	0.48

respectively. In all 95.42 per cent of the scientists published research articles and the mean number of them was 17.38.

The number of professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors publishing monographs were 13.33, 14.43, 12.50, 5.55 and 7.46 per cent respectively and the mean number of monographs published by them were 0.17, 0.30, 0.19, 0.06 and 0.15 respectively. The overall percentage of respondents publishing monographs and the mean number of monographs published were 11.07 and 0.19 per cent respectively.

The number of professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors publishing books, booklets, manuals etc. were 46.66, 31.95, 37.50, 25.00 and 10.00 per cent in that order and the mean number of these items published by them were 0.77, 0.54, 0.66, 0.36 and 0.25, respectively. The overall percentage of respondents publishing books, booklets, manuals etc. and the mean number of these items published by them were 30.22 and 0.48 per cent respectively.

4.1.8 Number of projects handled

Table 9. Distribution of scientists based on projects handled

Sl. No.	Category	KAU project				Externally funded project			
		Scientists handling KAU Projects		Number of KAU projects handled		Scientists handling externally funded projects		Number of externally funded projects handled	
		f	%	f	$\bar{X}$	f	%	f	$\bar{X}$
1	Professors	30	100.00	324	10.8	23	76.66	90	3.00
2	Associate Professors	83	85.58	667	6.88	62	63.92	193	1.99
3	Assistant Professors (S.G)	24	75.00	179	5.59	12	37.50	64	2.00
4	Assistant Professors (S.S)	28	77.70	265	7.36	15	41.66	70	1.94
5	Assistant Professors	29	43.28	140	2.09	24	35.82	85	1.27
	Overall	194	74.05	1575	6.01	136	51.91	502	1.92

Table 9 showed that KAU projects were undertaken by all professors, 85.58 per cent of associate professors, 75.00 per cent of assistant professors (S.G), 77.70 per cent of assistant professors (S.S) and 43.28 per cent of assistant professors. The mean numbers of KAU projects handled by the above categories of scientists were 10.8, 6.88, 5.59, 7.36 and 2.09 in that order. Overall 74.05 per cent of the scientists undertook KAU research projects and the overall mean of it was 6.01.

Table 9 also revealed that 76.66% of professors, 63.92% of associate professors, 37.50% of assistant professors (S.G), 41.66% of assistant professors (S.S), 35.82% of assistant professors and in all 51.91% of scientists handled externally funded projects. The means of externally funded projects handled by the above categories of scientists were 3.00, 1.99, 2.00, 1.94 and 1.27 in that order and the overall mean was 1.92.

4.1.9 Number of students guided

Table 10. Distribution of scientists based on students guided

Sl. No.	Category	Post graduate students				Ph.D. students			
		Scientists guiding post graduate students		Number of post graduate students guided		Scientists guiding Ph.D. students		Number of Ph.D. students guided	
		f	%	f	$\bar{X}$	f	%	f	$\bar{X}$
1	Professors	22	73.33	119	3.97	12	40.00	23	0.77
2	Associate Professors	64	65.98	275	2.84	24	24.74	44	0.45
3	Assistant Professors (S.G)	16	50.00	38	1.19	3	9.38	7	0.22
4	Assistant Professors (S.S)	14	38.88	43	1.19	2	5.55	3	0.08
5	Assistant Professors	17	25.37	23	0.34	-	-	-	-
	Overall	133	50.76	498	1.91	41	15.65	77	0.30

Table 10 indicated that the number of professors, associate professors, assistant professors (S.G), assistant professors (S.S) and assistant professors guiding post graduate students were 73.33, 65.98, 50.00, 38.88 and 25.37 per cent respectively. The mean number of postgraduates being guided by the above categories of respondents were 3.97, 2.84, 1.19, 1.19 and 0.34 in that order.

Ph.D. students were being guided by 40 per cent of professors, 24.74 per cent of associate professors, 9.38 per cent of assistant professors (S.G), 5.55 per cent of assistant professors (S.S) and none of the assistant professors. The mean number of students guided by the above categories of respondents was 0.77, 0.45, 0.22, 0.08 and zero in that order.

In all 50.76 per cent of scientists guided postgraduate students and 15.65 per cent of scientists Ph.D. students and mean of each category of students being guided respectively were 1.91 and 0.30.

4.1.10 Number of seminars, symposia, conferences, etc. attended

Table 11. Distribution of scientists based on number of seminars, symposia, conferences etc. attended

Sl. No.	Category	Within India				Outside India			
		Scientists attending seminars, symposia, etc. within India		Number of seminars, symposia, etc. attended within India		Scientists attending seminars, symposia, etc. outside India		Number of Seminars, symposia, etc. attended outside India	
		f	%	f	$\bar{X}$	f	%	f	$\bar{X}$
1	Professors	27	90.00	452	15.07	3	10.00	4	0.13
2	Associate Professors	93	95.87	824	8.49	11	11.34	28	0.29
3	Assistant Professors (S.G)	30	93.75	206	6.44	2	6.25	9	0.28
4	Assistant Professors (S.S)	33	91.99	168	4.67	4	11.11	14	0.39
5	Assistant Professors	55	82.09	203	3.03	2	2.99	2	0.03
	Overall	238	90.84	1853	7.07	22	8.40	57	0.22

Table 11 indicated that seminars, symposia, etc. were attended within India by 90 per cent of professors, 95.87 per cent of associate professor, 93.75 per cent of assistant professor (S.G), 91.99 per cent of assistant professors (S.S) and 82.09 per cent of assistant professors. The mean numbers of seminars, symposia, etc. attended within India by the above categories of scientists were 15.07, 8.49, 6.44, 4.67 and 3.03 in that order. Overall, 90.84 per cent of scientists were attending seminars, symposia etc., within India and the mean number of seminars, symposia etc. attended was 7.07.

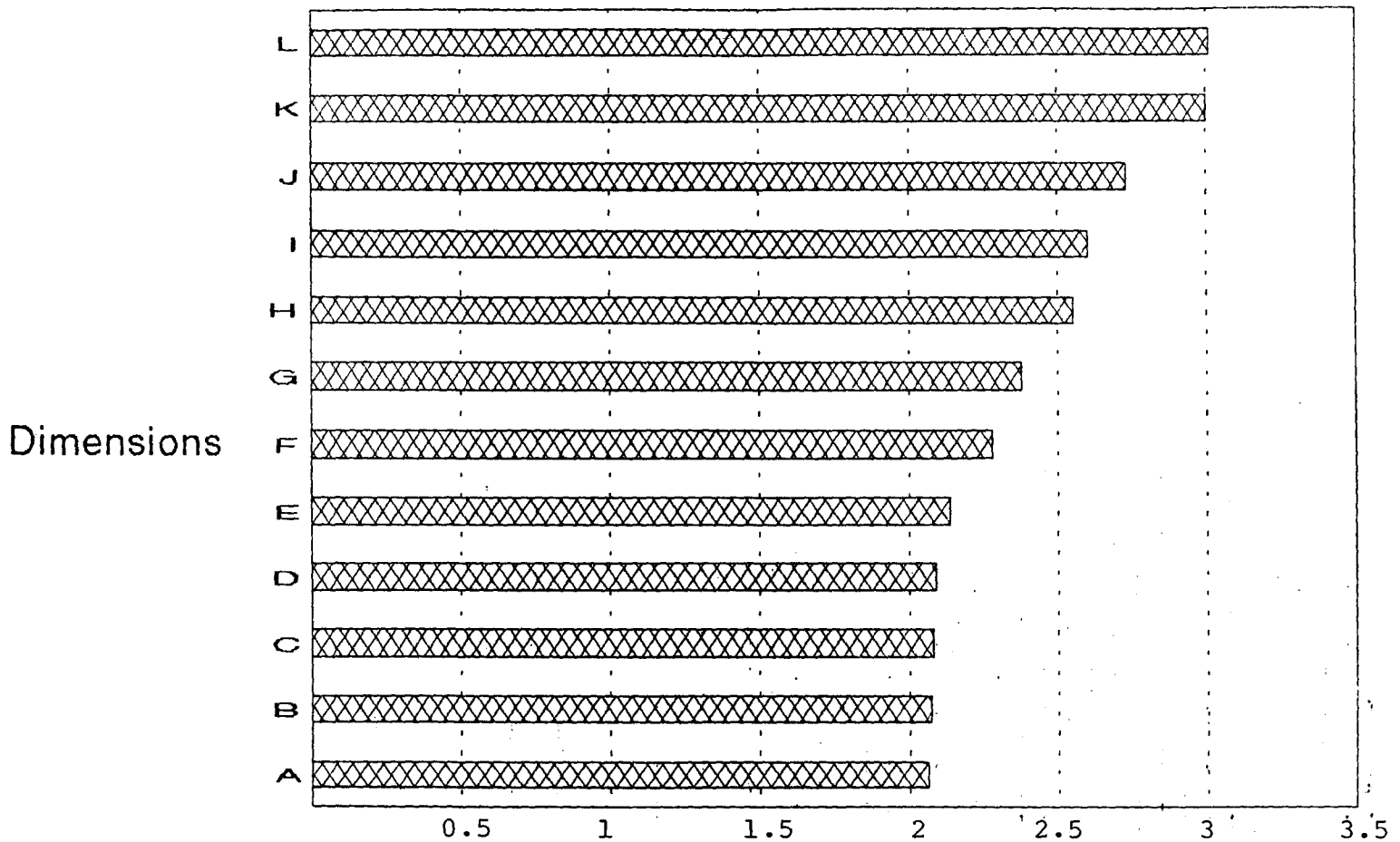
Table 11 also revealed that 10 per cent of professors, 11.34 per cent of associate professors, 6.25 per cent of assistant professors (S.G), 11.11 per cent of assistant professors (S.S), 2.99 per cent of assistant professors and in all 8.40 per cent of scientists attended seminars, symposia, etc., outside India. The mean number of seminars, symposia, etc., attended outside India by the above categories of scientists was 0.13, 0.29, 0.28, 0.39, and 0.03 respectively and the overall mean score was 0.22.

4.2 Perception of HRD climate

Table 12. Strength of various dimensions of HRD climate

Sl.No.	Dimensions	Mean score	% mean score	Rank
1	Organisational culture	3.01	60.2	1
2	Teamwork	3.00	60.0	2
3	Transfer	2.73	54.6	3
4	Management philosophy	2.60	52.0	4
5	Communication	2.55	51.0	5
6	Career planning and development	2.38	47.6	6
7	Placement	2.28	45.6	7
8	Rewards	2.14	42.8	8
9	Performance appraisal	2.09	41.8	9
10	Promotion	2.08	41.6	10
11	Training	2.07	41.4	11
12	Manpower planning and forecasting	2.06	41.2	12

Fig.2 STRENGTH OF VARIOUS DIMENSIONS OF THE HUMAN RESSOURCE DEVELOPMENT CLIMATE



A. Manpower Planning and forecasting
B. Training
C. Promotion
D. Performance appraisal
E. Rewords
F. Placement
G. Career Planning and Development
H. Communication
I. Management Philosophy
J. Transfer
K. Team Work
L. Organisational Culture

It was indicated from Table 12 that the dimension organizational culture (60.2), teamwork (60.0%), transfer (54.6%), management philosophy (52.0%), communication (51.0%) and career planning and development (47.6%) were ranked first, second, third, fourth, fifth and sixth respectively based on their percentage mean scores. The dimensions, placement (45.6), rewards (42.8%), performance appraisal (41.8%), promotion (41.6%) and training (41.4%) were ranked seventh, eighth, ninth, tenth and eleventh respectively. The dimension, manpower planning and forecasting (41.2%) was ranked last.

4.2.1 Overall perception of HRD climate

Table 13. Distribution of scientists based on perception of HRD climate

Category	F	%
Favourable (>170.80)	72	27.48
Moderately favourable (170.80-135.05)	108	41.22
Unfavourable (<135.05)	82	31.30
Total	262	100

Distribution of scientists based on overall perception of the HRD climate (Table 13) indicated that it was perceived favourable by 27.78% scientists, moderately favourable by 41.22% and unfavourable by 31.30%.

4.2.2.1 Management philosophy

Table 14. Distribution of scientists based on perception of the dimension – Management philosophy

Category	F	%
Favourable	81	30.92
Moderately favourable	137	52.29
Unfavourable	44	16.79
Total	262	100

Fig.3 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF HRD CLIMATE

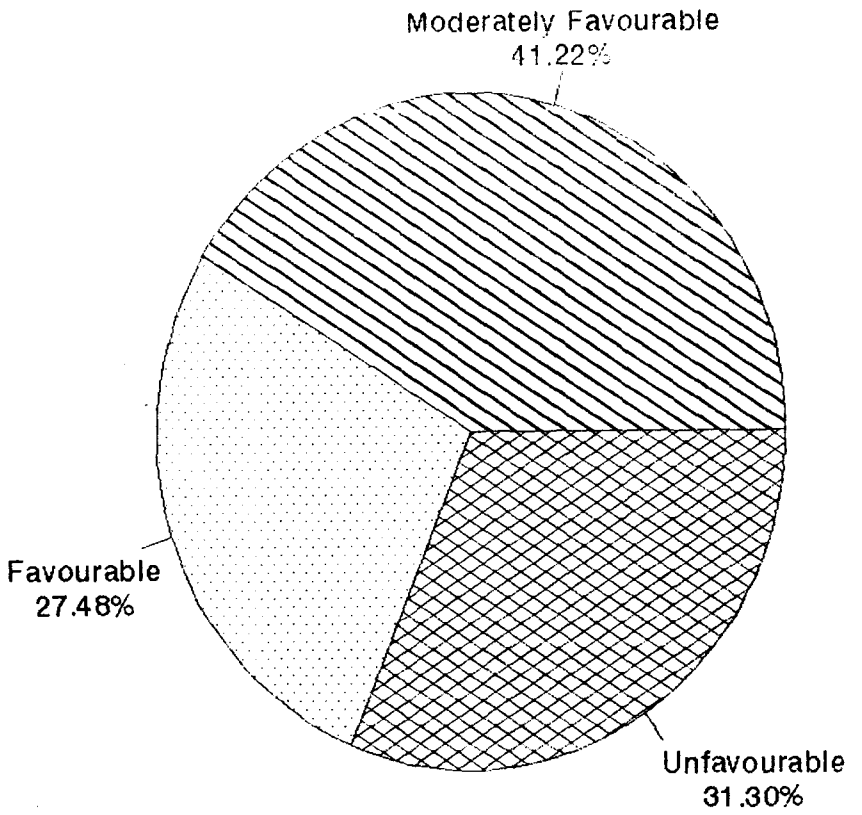


Fig.4 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - MANAGEMENT PHILOSOPHY

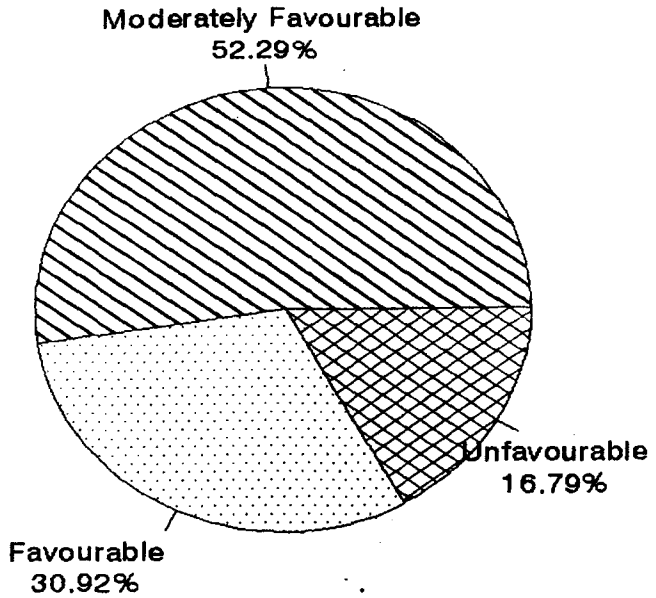
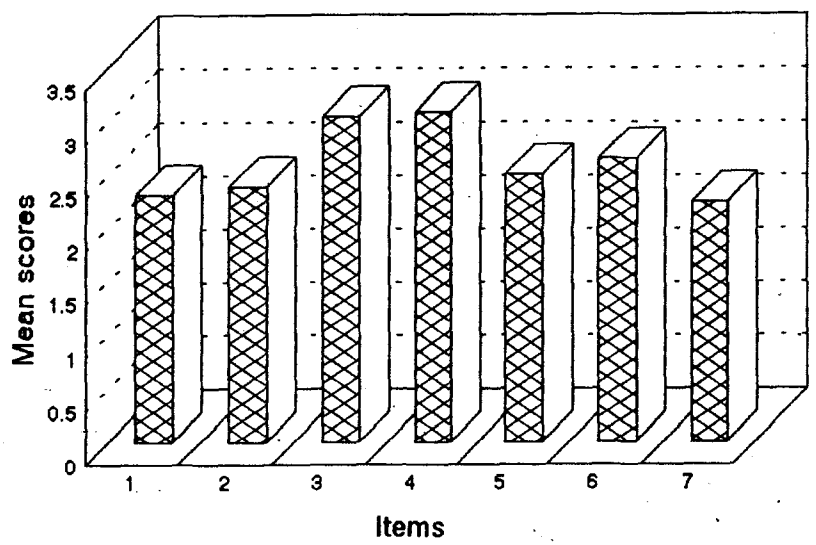


Fig.5 ITEM-WISE MEAN SCORES OF THE DIMENSION-MANAGEMENT PHILOSOPHY



1. Values the human resources first
2. Scientists have unlimited potential and behaviour can be changed
3. Protective psychological climate
4. Responsibility of the superior to create a healthy and motivating work climate
5. Providing basic and Higher needs for Scientists favourable feeling of organisation
6. Scientists commitment can be increased by providing opportunity
7. Scientists aspiration can be aligned with that of organizational goals.

From Table 14 it can be noted that 30.92% of the scientists perceived management philosophy as favourable 52.29% as moderately favourable and 16.79% as unfavourable.

Table 15. Item-wise mean scores of the dimension – Management philosophy

Items		Mean score	% mean score	Rank
1	Values the human resources first than other physical resources	2.31	46.2	6
2	Scientists have unlimited potential to develop and their behaviour can be changed	2.39	47.8	5
3	Protective psychological climate to work is what is sensible	3.04	60.8	2
4	It is the responsibility of the superior to create a healthy and motivating work climate	3.08	61.6	1
5	Scientists' favourable feeling of organization can be ensured by providing for their basic and higher needs	2.50	50.0	4
6	Scientists' commitment can be increased by providing opportunity	2.65	53.0	3
7	Scientists' aspiration can be aligned with that of organizational goals	2.24	44.8	7

Details of the items under the dimension, management philosophy are given in Table 15. The item that, it is the superior to create a healthy and motivating work climate was ranked first in terms of percentage mean score (61.6%). This was followed by the items, viz protective psychological climate to work is what is sensible (60.8%), scientists' commitment can be increased by providing opportunity (53.0%), scientists' favourable feeling of organisation can be ensured by providing for their basic and higher needs (50.0%), scientists' have unlimited potential to

develop and their behaviour can be changed (47.8%), values the human resources first than other physical resources (46.2%) and scientists aspiration can be aligned with that of organizational goals (44.8%) was ranked last.

4.2.2.2 Training

Table 16. Distribution of scientists based on perception of the dimension – Training

Category	F	%
Favourable (>14.24)	79	30.25
Moderately favourable (8.26 – 14.24)	133	50.76
Unfavourable (<8.26)	50	19.09
Total	262	100

Table 16 revealed that 30.25 per cent of the scientists perceived the dimension, training as favourable, 50.76 per cent perceived it as moderately favourable and 19.09 per cent perceived it as unfavourable.

Table 17. Item-wise mean scores of the dimension – Training

Sl. No.	Items	Mean socre	% mean score	Rank
1	Scientists are provided adequate financial support for higher learning/training	2.32	46.4	2
2	Scientists can avail the first opportunity to get trained	2.12	42.4	3
3	Unreasonable restrictions are imposed for training	2.38	47.6	1
4	Scientists are sent for training as and when need for such an expertise is felt	1.96	39.2	5
5	Training to be undergone is being decided jointly by the scientist and management	2.04	40.8	4
6	Organisation is concerned with assessing periodically the training needs of the scientists	1.61	32.2	6

Fig.6 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - TRAINING

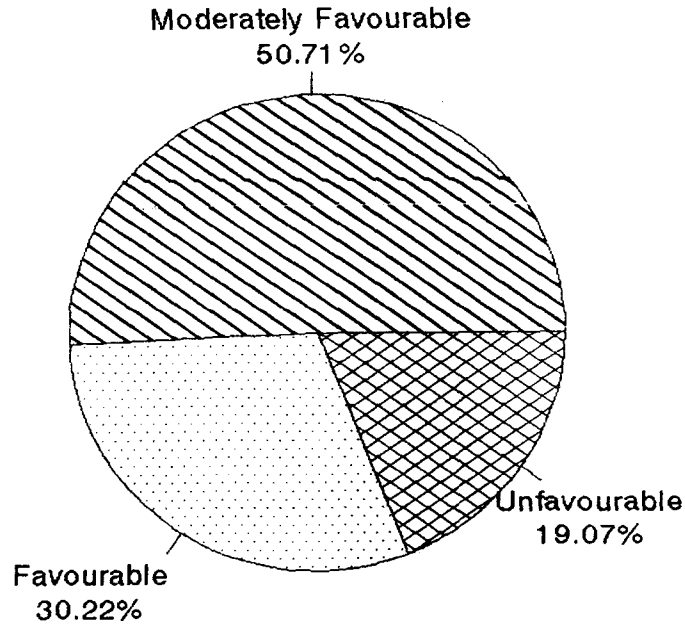
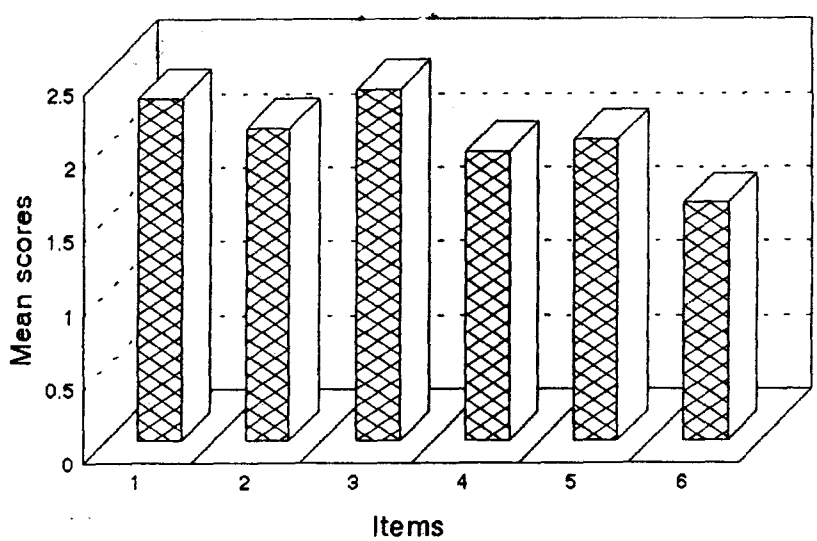


Fig.7 ITEM-WISE MEAN SCORES OF THE DIMENSION - TRAINING



1. Adequate financial support for higher learning/training
2. The first opportunity to get trained
3. Unreasonable restrictions
4. Send for training as and when need for such an expertise is felt
5. Decided Jointly by the scientist and management
6. Assessing periodically the training needs

Table 17 revealed item-wise details of the dimension, training. The item, unreasonable restrictions are imposed for training was ranked first in terms of percentage mean score (47.6%) followed by scientists are provided adequate financial support for higher learning/training (46.4%), scientists can avail the first opportunity to get trained (42.4%), training to be undergone is being decided jointly by the scientist and management (40.8%), scientists are sent for training as and when need for such an expertise is felt (39.2%) and organization is concerned with assessing periodically the training needs of the scientists (32.2%).

4.2.2.3 Career Planning and development

Table 18. Distribution of scientists based on perception of the dimension – Career planning and development

Category	F	%
Favourable (>10.13)	90	34.35
Moderately favourable (7.13 – 10.13)	136	51.91
Unfavourable (<7.13)	36	13.74
Total	262	100

Table 18 showed that 34.35 per cent of the scientists perceived career planning and development as favourable, 51.91 per cent as moderately favourable and the remaining 13.74 per cent as unfavourable.

Fig.8 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - CAREER PLANNING AND DEVELOPMENT

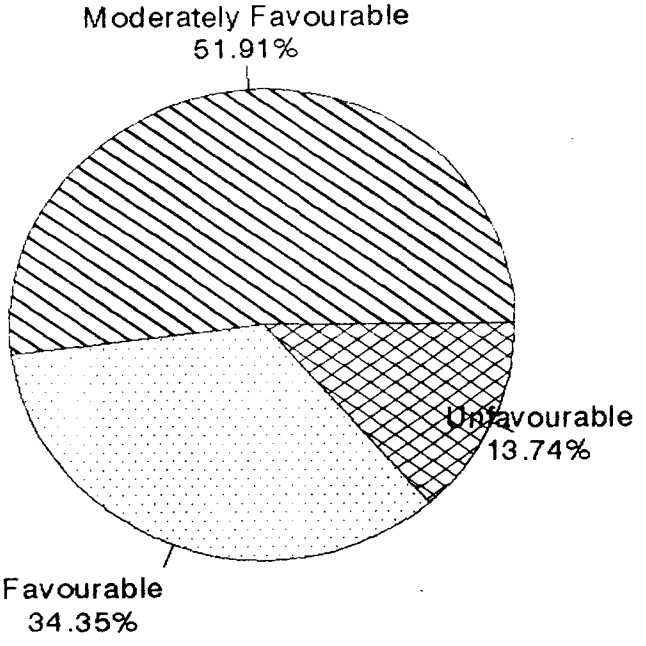
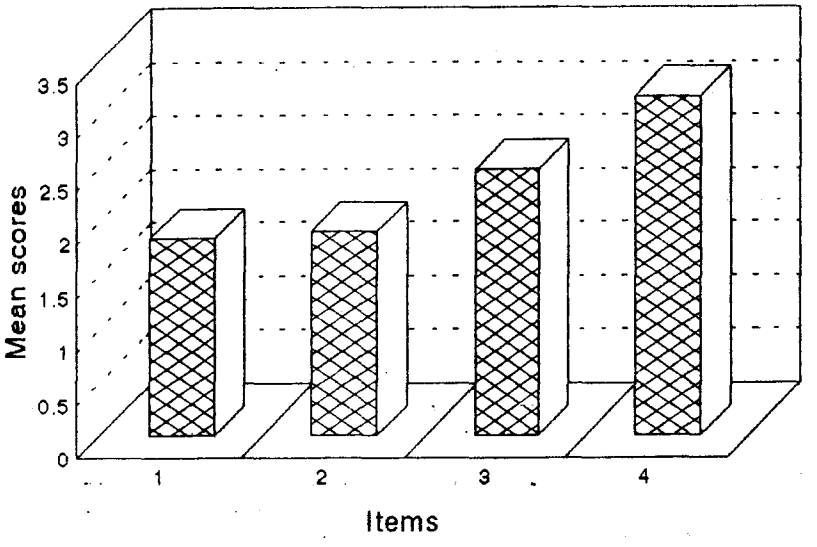


Fig.9 ITEM-WISE MEAN SCORES OF THE DIMENSION-CAREER PLANNING AND DEVELOPMENT



1. Career opportunities are pointed out juniors by seniors
2. Given feed back and guided in career development
3. Delegation of authority to handle higher responsibilities
4. Junior consider responsibilities as an opportunity for development.

Table 19. Item-wise mean scores of the dimension - Career planning and development

Sl. No.	Items	Mean score	% mean score	Rank
1	Career opportunities are pointed out to juniors by seniors	1.84	37.0	4
2	Scientists are regularly given feedback and guided in their career development	1.90	38.0	3
3	Delegation of authority to encourage juniors to handle higher responsibilities	2.48	49.6	2
4	Juniors consider responsibilities as an opportunity for development	3.17	63.4	1

In case of the dimension, career planning and development (Table 19), juniors consider responsibilities as an opportunity for development was ranked first in terms of percentage mean score (63.4%). The other items, viz delegation of authority to encourage juniors to handle higher responsibilities (49.6%) and scientists are regularly given feedback and guided in their career development (38%) were ranked second and third respectively. The items, career opportunities are pointed out to juniors by seniors (37%) was ranked last.

4.2.2.4 Manpower planning and forecasting

Table 20. Distribution of scientists based on perception of the dimension - Manpower planning and forecasting

Category	F	%
Favourable (>14.27)	86	32.82
Moderately favourable (8.26 – 14.27)	101	38.55
Unfavourable (<8.26)	75	28.63
Total	262	100

Fig.10 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - MANPOWER PLANNING AND FORCASTING

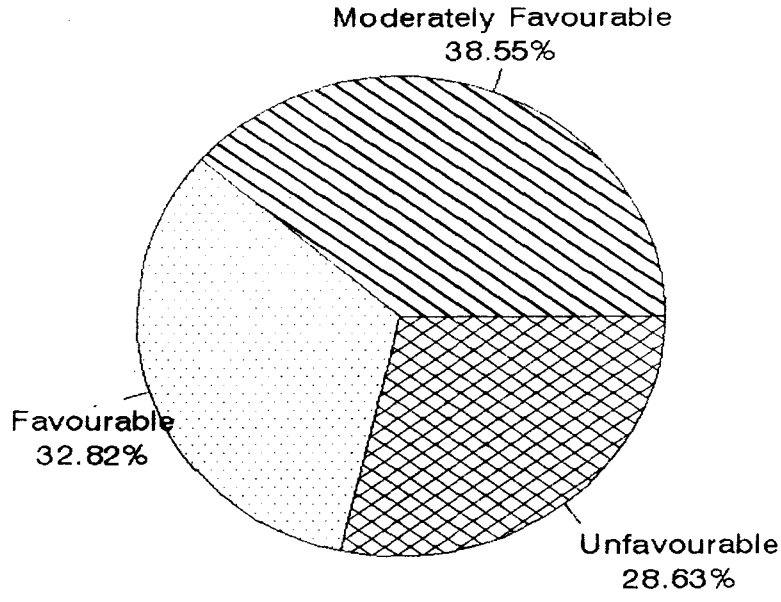
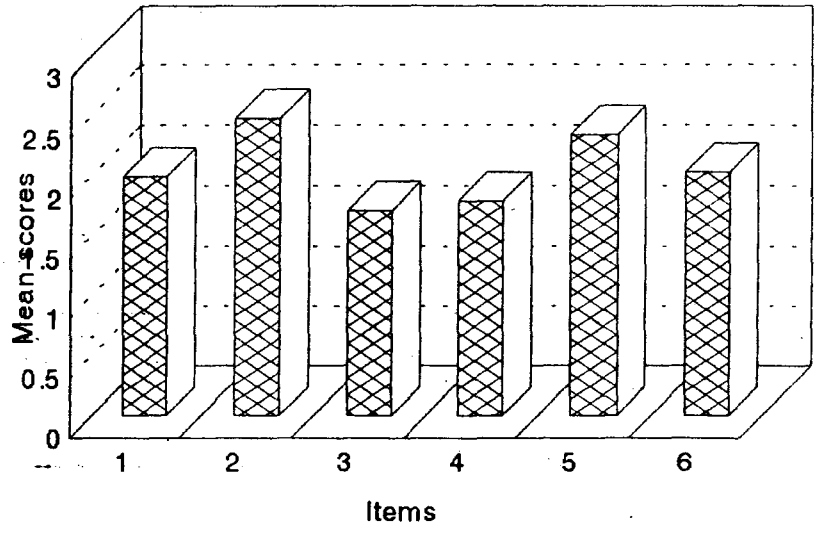


Fig.11 ITEM-WISE MEAN SCORES OF THE DIMENSION-MANPOWER PLANNING AND FORCASTING



1. Builing up a sound Management Information System(MIS)
2. Realises MIS is essential for making manpower requirement forecast
3. Assessing periodically the availability of manpower
4. Manpower planning and forecast being done equitably
5. Manpower planning considers number of trained people and the quality of training
6. Selection, placement and training of scientists are based on sound forecasting.

It was noticed from Table 20 that 32.82 per cent of the scientists perceived manpower planning and forecasting as favourable, 38.55 per cent as moderately favourable and 28.63 per cent as unfavourable.

Table 21. Item-wise mean scores of the dimension - Manpower planning and forecasting

Sl. No.	Items	Mean score	% mean score	Rank
1	Concerned with builing up a sound Management Information System (MIS)	2.00	40.0	4
2	Realises that good MIS is an essential pre-requisite for making manpower requirement forecast	2.48	49.6	1
3	Assessing periodically the availability of manpower resource	1.71	34.2	6
4	Manpower planning and forecasting being done equitably for each and every department	1.79	35.8	5
5	Manpower planning duly considers both number of trained people and the quality of training	2.34	46.8	2
6	Selection, placement and training of scientists are based on sound forecasting of manpower requirement	2.03	40.6	3

The item-wise perception of the dimension, manpower planning and forecasting was given in the Table 21. The item, the management realises that good Management Information System (MIS) is an essential pre-requisite for making manpower requirement forecast was ranked first in terms of percentage mean score (49.6%). The other items, viz manpower planning duly considers both number of trained people and the quality of training (46.8%), selection, placement and training of scientists are based on sound forecasting of manpower requirement (40.6%),

concerned with building up a sound MIS (40%), manpower planning and forecasting being done equitably for each and every department (35.8%) and assessing periodically the availability of manpower resource (34.2%) were ranked second, third, fourth, fifth and sixth respectively.

4.2.2.5 Performance appraisal

Table 22. Distribution of scientists based on perception of dimension - Performance appraisal

Category	F	%
Favourable (>7.58)	43	16.41
Moderately favourable (4.60 – 7.58)	153	58.40
Unfavourable (<4.60)	66	25.19
Total	262	100

It was noted from Table 22 that 16.41 per cent scientists perceived performance appraisal as favourable, 58.40 per cent perceived it as moderately favourable and 25.19 per cent perceived as unfavourable.

Table 23. Item-wise mean scores of the dimension - Performance appraisal

Sl. No.	Items	Mean score	% mean score	Rank
1	Concerned with keeping the procedures and techniques of performance appraisal fool proof and appropriate	2.08	41.6	2
2	Realises performance appraisal as an important management activity	2.55	51.0	1
3	Concerned with conducting performance appraisal at regular intervals	1.65	33.0	3

Fig.12 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - PERFORMANCE APPRAISAL

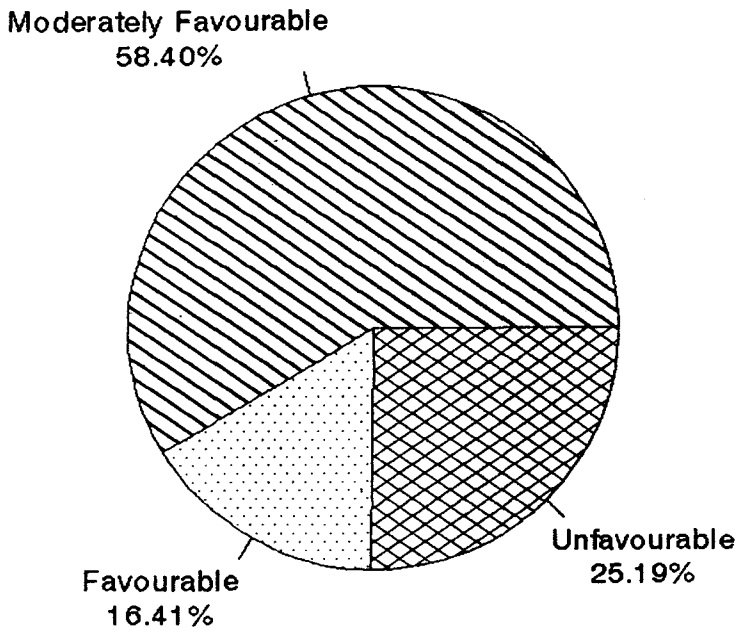
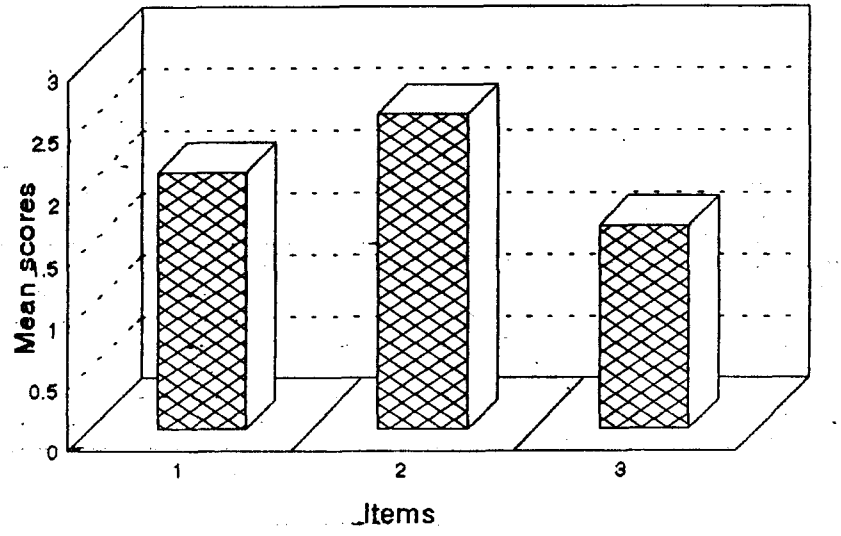


Fig.13 ITEM-WISE MEAN SCORES OF THE DIMENSION-PERFORMANCE APPRAISAL



1. The procedures and techniques of performance appraisal are tool-proof and appropriate
2. Realises it as an important management activity
3. Conducting performance appraisal at regular intervals

Table 23 presented the perception of the various facets of the dimension, performance appraisal. The item, organisation realises performance appraisal as an important management activity was ranked first (51%) followed by the items, organisation is concerned with keeping the procedures and techniques of performance appraisal foolproof and appropriate (41.6%) and it is concerned with conducting performance appraisal at regular intervals (33%).

4.2.2.6 Placement

Table 24. Distribution of scientists based on perception of the dimension - Placement

Category	F	%
Favourable (>9.18)	140	53.44
Moderately favourable (7.07-9.18)	79	30.15
Unfavourable (<7.07)	43	16.41
Total	262	100

Table 24 showed that 53.44 per cent scientists perceived the dimension placement as favourable, 30.15 per cent perceived it as moderately favourable and 16.41 per cent perceived it as unfavourable.

Table 25. Item-wise mean scores of the dimension – Placement

Sl.No.	Items	Mean score	% mean score	Rank
1	Follows the procedure of "The right man for the right job"	1.91	38.2	4
2	Placement to appropriate position is being done within a reasonable period	2.03	40.6	2
3	Placement is based on work load rather than on the basis of specialisation	3.19	63.8	1
4	"Second placement" is being practiced in the organisation	2.01	40.2	3

Fig.14 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - PLACEMENT

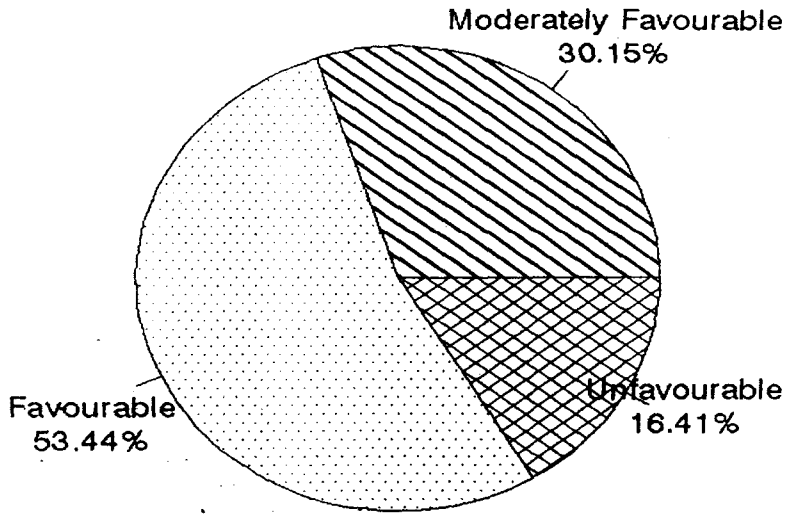
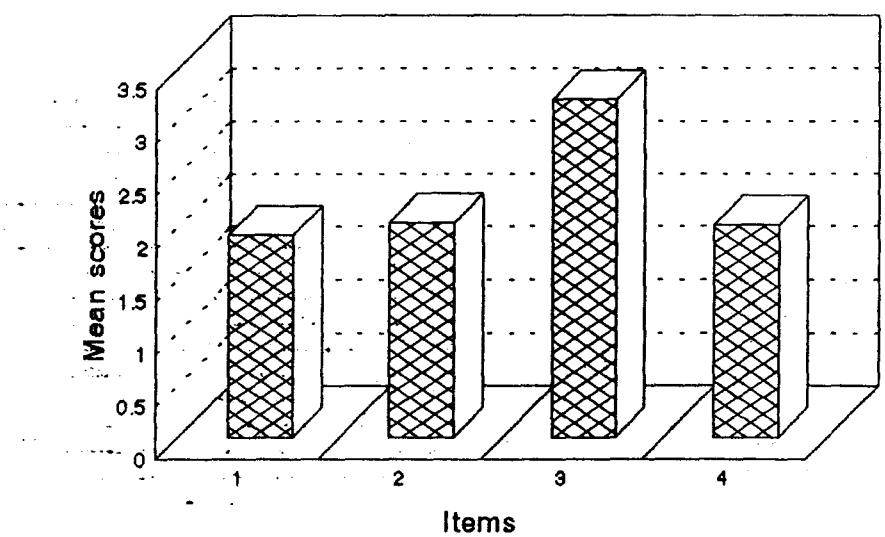


Fig.15 ITEM-WISE MEAN SCORES OF THE DIMENSION-PLACEMENT



1. "The right man for the right job" is followed
2. Placement is being done within a reasonable period
3. Placement on the basis of specialisation
4. "Second placement" is being practiced in the organisation

Details of the items under the dimension - placement are given in Table 25. The item, placement is based on work load rather than on the basis of specialisation was ranked first (63.8%), followed by placement to appropriate position is being done within a reasonable period (40.6%), second placement is being practiced in the organisation (40.2%) and follows the procedure of "The right man for the right job" (38.2%).

4.2.2.7 Communication

Table 26. Distribution of scientists based of perception of dimension – Communication

Category	F	%
Favourable (>18.24)	135	51.53
Moderately favourable (14.2 – 18.24)	71	27.10
Unfavourable (<14.2)	56	21.37
Total	262	100

It can be noticed from Table 26 that 51.53 per cent scientists perceived communication as favourable, 27.10% perceived it as moderately favourable and 21.37 per cent perceived it as unfavourable.

Table 27. Item-wise mean scores of the dimension – communication

Sl. No.	Items	Mean score	% mean score	Rank
1	Receiving only late communication from higher-ups	2.13	42.6	6
2	Decisions are passed on without distorting them	3.02	60.4	2
3	Timely responding to opinions and suggestions	1.89	37.8	7
4	Opportunity to interact with higher-ups and ventilate grievances	2.43	48.6	4
5	Communication gadgets are sufficient for readily exchanging important information	2.31	46.2	5
6	Opportunities to take part in scientific seminar, conferences, etc.	3.21	64.2	1
7	Access to literature to update knowledge	2.82	56.4	3

Fig.16 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - COMMUNICATION

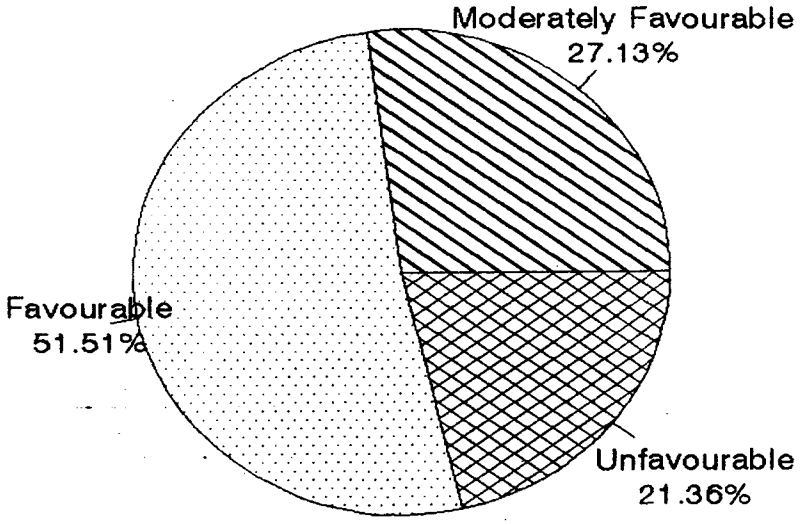
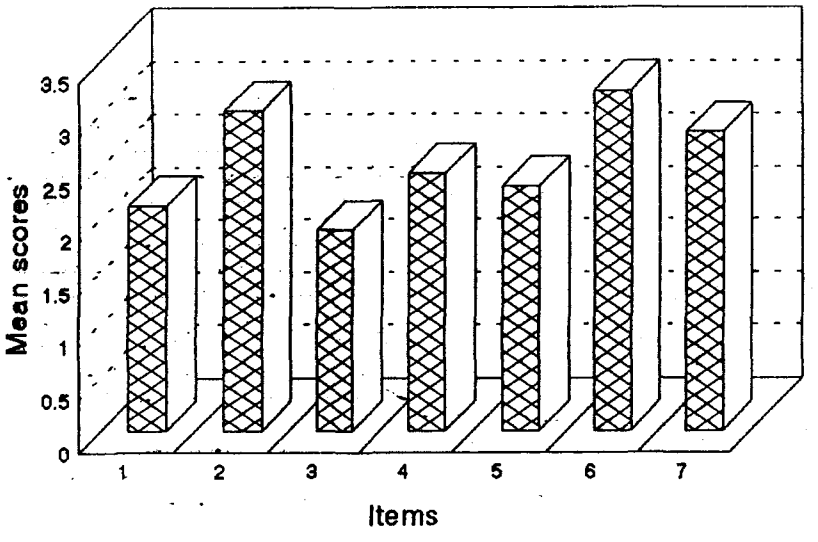


Fig.17 ITEM-WISE MEAN SCORES OF THE DIMENSION-COMMUNICATION



1. Receiving late communication from higher ups
2. Decisions are passed without distortion
3. Timely responding to opinions and suggestions
4. Opportunity to interact with higher ups
5. Communication gadgets are sufficient
6. Opportunities to take part in scientific seminars conferences, etc.
7. Access to literature to update knowledge

Table 27 presented the perception of the various facets of the dimension, communication. The item, opportunities to take part in scientific seminars, conferences, etc., (64.2%) was ranked first. Other items, viz decisions are passed on without distorting them (60.4%), access to literatures to update knowledge (56.4%), opportunity to interact with higher-ups and ventilate grievances (48.6%), communication gadgets are sufficient for readily exchanging important information (46.2%), receiving only late communication from higher ups (46.95%) and timely responding to opinions and suggestions (37.8%) were ranked second, third, fourth, fifth, sixth and seventh respectively.

4.2.2.8 Teamwork

Table 28. Distribution of scientists based on perception of the dimension - Teamwork

Category	F	%
Favourable (>18.17)	143	54.58
Moderately favourable (14.20 – 18.17)	94	35.88
Unfavourable (<14.20)	25	9.54
Total	262	100

It was noted from Table 28 that 54.58 per cent respondents perceived the dimension teamwork as favourable, 35.88 per cent perceived as moderately favourable and the rest 9.54 per cent perceived as unfavourable.

Fig.18 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - TEAMWORK

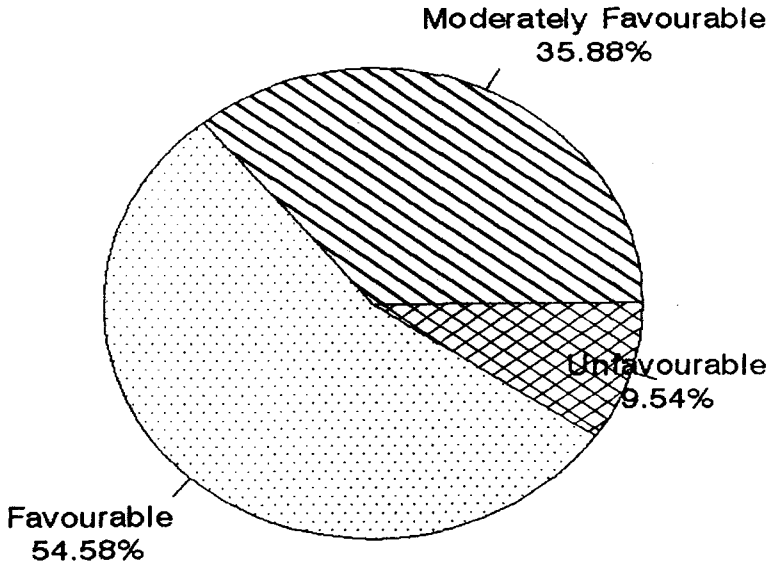
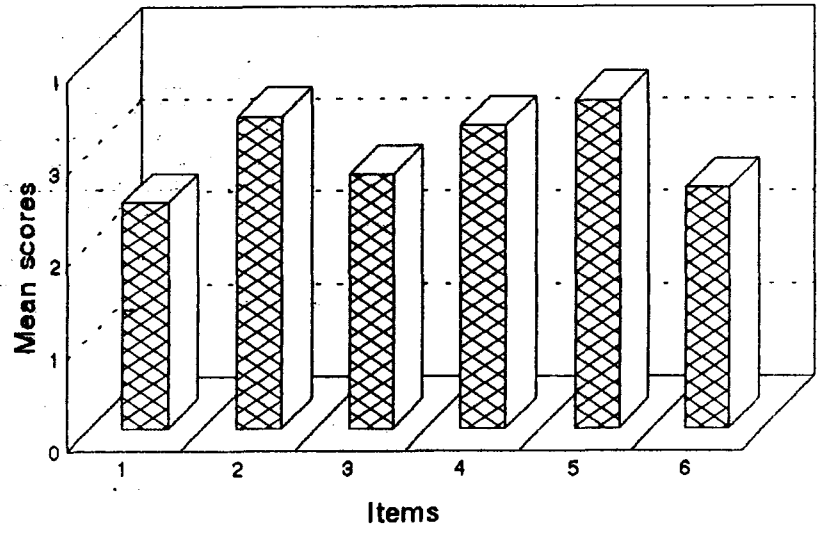


Fig.19 ITEM-WISE MEAN SCORES OF THE DIMENSION-TEAM WORK



1. Management supports team work
2. Helping relation among scientists during team work
3. Scientists dosown their roles
4. Free and frank communication during Team Work
5. During times of task accomplishment the scientists attendance
6. Understanding about the work to be shared

Table 29. Item-wise mean scores of the dimension - Teamwork

Sl. No.	Items	Mean score	% mean score	Rank
1	Management realises the importance of team work and supports it	2.44	48.8	6
2	Helping relation among scientists during team work	3.37	67.4	2
3	Scientists disown their roles	2.74	54.8	4
4	During team work scientists communicate each other freely and frankly	3.27	65.4	3
5	During times of task accomplishment the scientists attendance is poor	3.54	70.8	1
6	Understanding among the scientists about the work to be shared	2.60	52.0	5

Table 29 revealed perception of the items under dimension, Teamwork. The items, during times of task accomplishment the scientists' attendance is poor (70.8%) was ranked first followed by helping relation among scientists during team work (67.4%), scientists communicate each other freely and frankly during team work (65.4%), scientists disown their roles (54.8%), understanding among the scientists about the work to be shared (52%) and management realises the importance of team work and supports it (48.8%).

4.2.2.9 Transfer

Table 30. Distribution of scientists based on perception of the dimension - Transfer

Category	F	%
Favourable (>14.18)	145	55.35
Moderately favourable (10.17 – 14.18)	91	34.73
Unfavourable (<10.17)	26	9.92
Total	262	100

Fig.20 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - TRANSFER

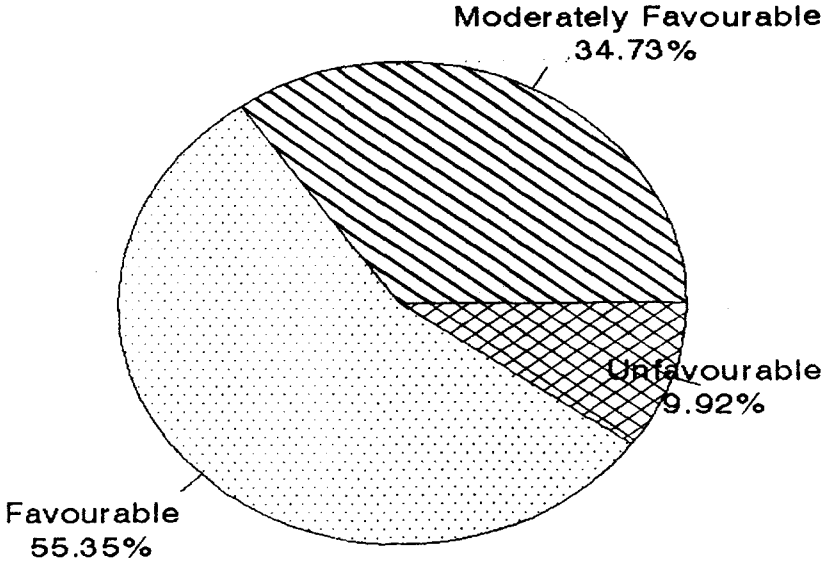
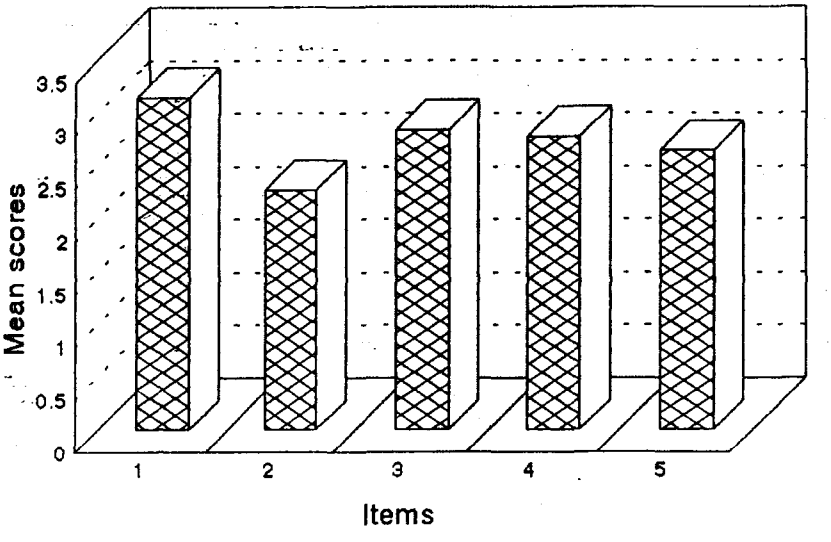


Fig.21 ITEM-WISE MEAN SCORES OF THE DIMENSION-TRANSFER



1. Frequently transferred
2. Some scientists can get transfer as and when required
3. Not used as a device to punish
4. Genuine personal requests
5. Undue resistance from some scientists when organisation initiates fair transfer

Table 30 showed that 55.35 per cent scientists perceived the dimension transfer as favourable, 34.73 per cent perceived it as moderately favourable and 9.92 per cent perceived it as unfavourable.

Table 31. Item-wise mean scores of the dimension – Transfer

Sl. No.	Items	Mean score	% mean score	Rank
1	Scientists are frequently transferred	3.15	63.0	1
2	Some scientists can get transfer as and when required	2.27	45.4	5
3	Transfer is not used as a device to punish	2.83	56.6	2
4	Genuine personal requests for transfer are duly considered	2.77	55.4	3
5	There is undue resistance from some scientists when organisation initiates fair transfer	2.64	52.8	4

In case of the dimension transfer, the item frequent transfer (63%) was ranked first. The other items, viz transfer is not used as a device to punish (56.6%), genuine personal requests for transfer are duly considered (55.4%), there is undue resistance from some scientists when organisation initiates fair transfer (52.8%) and some scientists can get transfer as and when required (45.4%) were ranked second, third, fourth and fifth respectively.

4.2.2.10 Promotion

Table 32. Distribution of scientists based on perception of dimension - Promotion

Category	F	%
Favourable (>10.01)	79	30.15
Moderately favourable (6.11-10.01)	110	41.99
Unfavourable (<6.11)	73	27.86
Total	262	100

Fig.22 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - PROMOTION

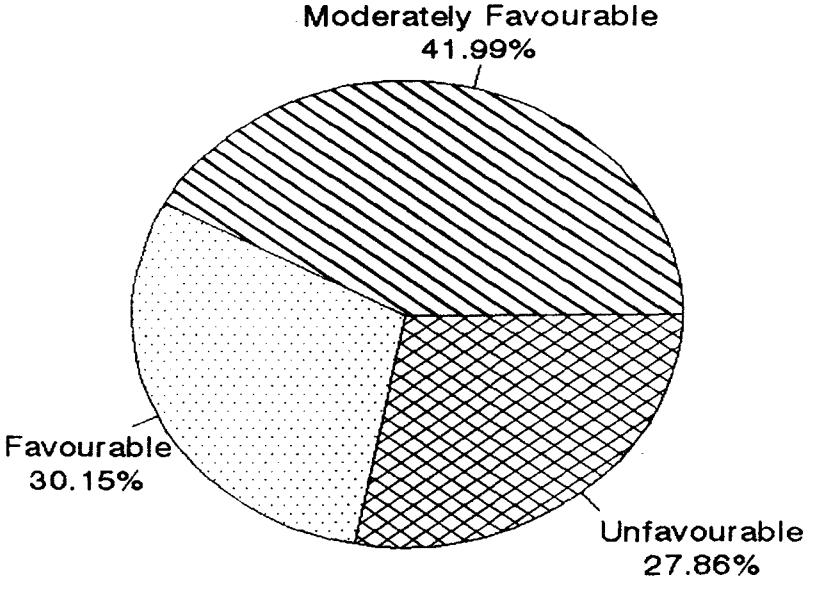
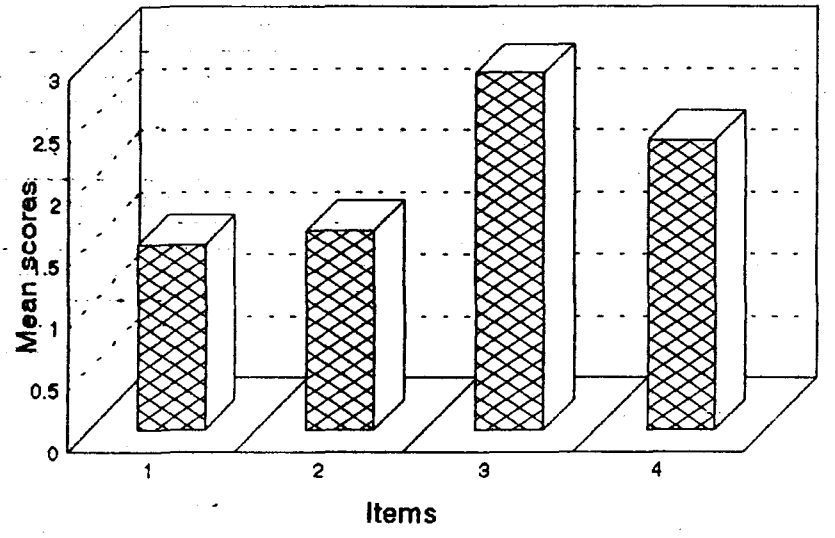


Fig.23 ITEM-WISE MEAN SCORES OF THE DIMENSION-PROMOTION



1. Ensures scientists promotion in the right time
2. The promotional policies up-to-date
3. Scientists do not get unmerited promotion
4. Concerned with making "promotion within" as far as practicable

It was noticed from Table 32 that 30.15 per cent scientists perceived promotion as favourable, 41.99 per cent perceived it as moderately favourable and 27.86 per cent perceived it as unfavourable.

Table 33. Item-wise mean scores of the dimension – Promotion

Sl. No.	Items	Mean score	% mean score	Rank
1	Ensures scientists' promotion in the right time	1.50	30.0	4
2	Concerned with keeping the promotional policies up-to-date	1.61	32.2	3
3	Scientists do not get unmerited promotion	2.88	57.6	1
4	Concerned with making "promotion within" as far as practicable	2.34	46.8	2

Item-wise perception of dimension, promotion is presented in Table 33. The item, scientists do not get unmerited promotion (57.6%) was ranked first, followed by concerned with making "promotion within" as far as practicable (46.8%), concerned with keeping the promotional policies up-to-date (32.2%) and ensures scientists' promotion in the right time (30%).

4.2.2.11 Rewards

Table 34. Distribution of scientists based on perception of the dimension - Rewards

Category	F	%
Favourable (>10.08)	87	33.21
Moderately favourable (6.05-10.08)	125	47.71
Unfavourable (<6.05)	50	19.08
Total	262	100

Fig.24 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - REWARDS

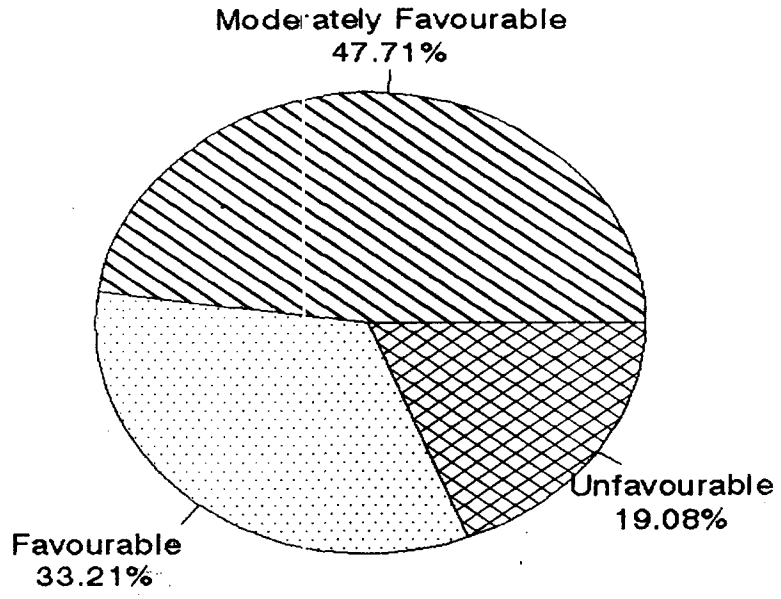
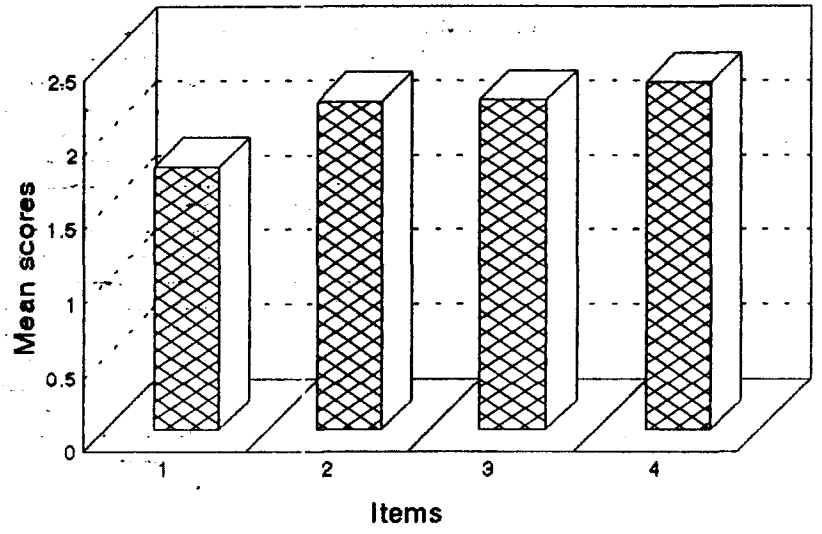


Fig.25 ITEM-WISE MEAN SCORES OF THE DIMENSION-REWARDS



1. Good work done is rewarded
2. Superiors usually appreciate good work
3. Provide physical facilities to a sincere scientist
4. Considers pay and other incentives as powerful motivators of work

Table 34 showed that 33.21 per cent scientists perceived the dimension - rewards as favourable, 47.71 per cent perceived it as moderately favourable and 19.08 per cent perceived it as unfavourable.

Table 35. Item-wise mean scores of the dimension – Rewards

Sl. No.	Items	Mean score	% mean score	Rank
1	Good work done is rewarded	1.77	35.4	4
2	Superiors usually appreciate good work	2.21	44.2	3
3	Committed to provide all practicable physical facilities to a sincere scientists	2.22	44.4	2
4	Considers pay and other incentives as powerful motivators of work	2.34	46.8	1

Details of the items under the dimension, rewards are given in Table 35. The item that organisation considers pay and other incentives as powerful motivators of work (46.8%) was ranked first. The other items, viz committed to provide all practicable physical facilities to sincere scientists (44.4%), superiors usually appreciate good work done (44.2%) and good work is rewarded (35.4%) were ranked second, third and fourth respectively.

4.2.2.12 Organisational culture

Table 36. Distribution of scientists based on perception of the dimension - Organisational culture

Category	F	%
Favourable (>20.18)	92	35.12
Moderately favourable (14.15-20.18)	128	48.85
Unfavourable (<14.15)	42	16.03
Total	262	100

Fig.26 DISTRIBUTION OF SCIENTISTS BASED ON PERCEPTION OF THE DIMENSION - ORGANISATIONAL CULTURE

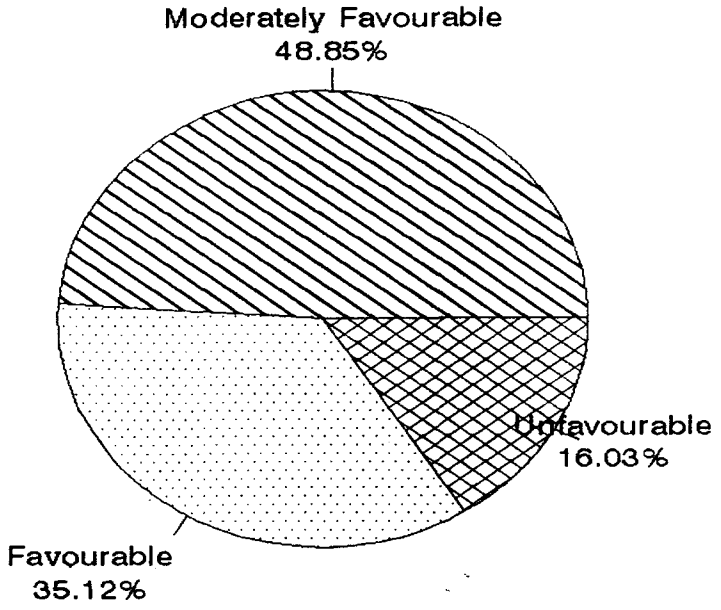
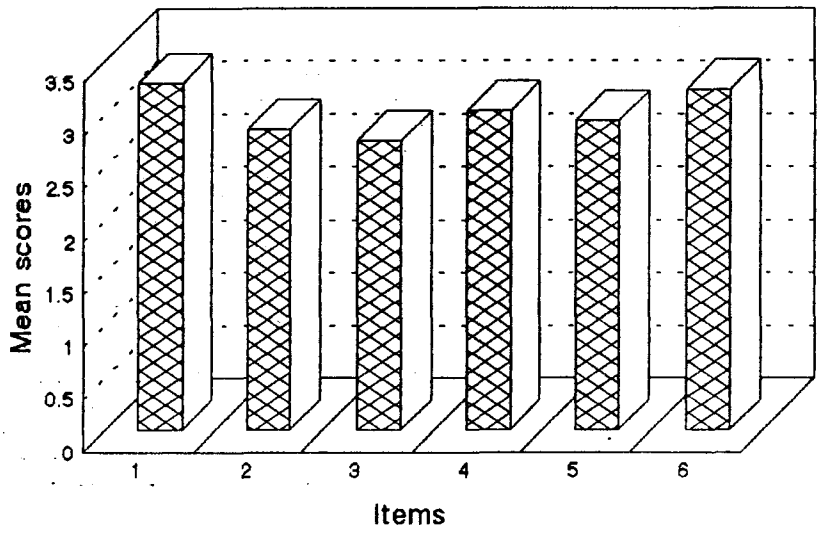


Fig.27 ITEM-WISE MEAN SCORES OF THE DIMENSION-ORGANISATIONAL CULTURE



1. Feel free to discuss their ideas, activities and feelings (openness)
2. Problems and issues are brought into open (Confrontation)
3. One cannot take fellow scientists at their face value (Trust)
4. Freedom to work independently with responsibility (Autonomy)
5. Enough encouragement to take initiative and ris (Proactivity)
6. Helpful to each other and are willing to work in teams (Collaboration)

It was observed from Table 36 that 35.12 per cent scientists perceived organisational culture as favourable, 48.85 per cent perceived it as moderately favourable and the rest 16.03 per cent perceived it as unfavourable.

Table 37. Item-wise mean scores of the dimension - Organisational culture

Sl. No.	Items	Mean score	% mean score	Rank
1	Scientists feel free to discuss their ideas, activities and feelings with each other (Openness)	3.28	65.6	1
2	Problems and issues are brought into open with a view to solve them (Confrontation)	2.85	57.0	5
3	One cannot take fellow scientists at their face value (Trust)	2.74	54.8	6
4	Freedom to work independently with responsibility (Autonomy)	3.02	60.4	3
5	There is enough encouragement to take initiative and risk (Proactivity)	2.93	58.6	4
6	Scientists are helpful to each other and are willing to work in teams (Collaboration)	3.22	64.4	2

Table 37 revealed the items under the dimension, organisational culture. The item that scientists feel free to discuss their ideas, activities and feelings with each other (65.6%) was ranked first followed by scientists are helpful to each other and are willing to work in teams (64.4%), no freedom to work independently with responsibility (60.4%), enough encouragement to take initiative and risk (58.6%), problems and issues are brought into open with a view to solve them (57%) and one cannot take fellow scientists at their face value (54.8%).

4.2.13 Items with percentage mean scores less than or above sixty

Table 38. Items with percentage mean scores above sixty under various dimensions of HRD climate

Sl. No.	Items	Mean score	% Mean score
	Management Philosophy		
1.	Protective psychological climate to work is what is sensible	3.04	60.8
2.	It is the responsibility of the superior to create a healthy and motivating work climate	3.08	61.6
	Career planning and development		
3.	Juniors consider responsibilities as an opportunity for development	3.17	63.4
	Placement		
4.	Placement is based on workload rather than on the basis of specialisation	3.19	63.8
	Communication		
5.	Decisions are passed on without distorting them	3.02	60.4
6.	Opportunities to take part in scientific seminars, symposia, conferences, etc.	3.21	64.2
	Teamwork		
7.	Helping relation among scientists during teamwork	3.37	67.4
8.	During teamwork scientists communicating each other freely and frankly	3.27	65.4
9.	During times of task accomplishment the scientists attendance is poor	3.54	70.8
	Transfer		
10.	Scientists are frequently transferred	3.15	63.0
	Organisational culture		
11.	Scientists feel free to discuss their ideas, activities and feelings with each other (Openness).	3.28	65.6
12.	Freedom to work independently with responsibility. (Auonomy).	3.02	60.4
13.	Scientists are helpful to each other and are willing to work in teams (Collaboration)	3.22	64.4

Table 39. Items with percentage mean scores less than 60 per cent under various dimensions of HRD climate.

Items		Mean score	% mean score
	Management philosophy		
1	Values the human resources first than other physical resources	2.31	46.2
2	Scientists' have unlimited potential to develop and their behaviour can be changed	2.39	47.8
3	Scientists' favourable feeling of organization can be ensured by providing for their basic and higher needs	2.50	50.0
4	Scientists' commitment can be increased by providing opportunity	2.65	53.0
5	Scientists' aspiration can be aligned with that of organizational goals	2.24	44.8
	Training		
6	Scientists are provided adequate financial support for higher learning/training	2.32	46.4
7	Scientists can avail the first opportunity to get trained	2.12	42.4
8	Unreasonable restrictions are imposed for training	2.38	47.6
9	Scientists are send for training as and when need for such an expertise is felt	1.96	39.2
10	Training to be undergone is being decided jointly by the scientist and management	2.04	40.8
11	Organisation is concerned with assessing periodically the training needs of the scientists	1.61	32.2
	Career planning and development		

12	Career opportunities are pointed out to juniors by seniors	1.84	37.0
13	Scientists are regularly given feedback and guided in their career development	1.90	38.0
14	Delegation of authority to encourage juniors to handle higher responsibilities	2.48	49.6
	Manpower planning and forecasting		
15	Concerned with building up a sound Management Information System (MIS)	2.00	40.0
16	Realises that good MIS is an essential pre-requisite for making manpower requirement forecast	2.48	49.6
17	Assessing periodically the availability of manpower resource	1.71	34.2
18	Manpower planning and forecasting being done equitably for each and every department	1.79	35.8
19	Manpower planning duly considers both number of trained people and the quality of training	2.34	46.8
20	Selection, placement and training of scientists are based on sound forecasting of manpower requirement	2.03	40.6
	Performance appraisal		
21	Concerned with keeping the procedures and techniques of performance appraisal foolproof and appropriate	2.08	41.6
22	Realises performance appraisal as an important management activity	2.55	51.0
23	Concerned with conducting performance appraisal at regular intervals	1.65	33.0

	Placement		
24	Follows the procedure of "The right man for the right job"	1.91	38.2
25	Placement to appropriate position is being done within a reasonable period	2.03	40.6
26	"Second placement" is being practiced in the organization	2.01	40.2
	Communication		
27	Receiving only late communication from higher ups	2.13	42.6
28	Timely responding to opinions and suggestions	1.89	37.8
29	Opportunity to interact with higher ups and ventilate grievances	2.43	48.6
30	Communication gadgets are sufficient for readily exchanging important information	2.31	46.2
31	Access to literature to update knowledge	2.82	56.4
	Teamwork		
32	Management realises the importance of teamwork and supports it	2.44	48.8
33	Scientists disown their roles	2.74	54.8
34	Understanding among the scientists about the work to be shared	2.60	52.0
	Transfer		
35	Some scientists can get transfer as and when required	2.27	45.4
36	Transfer is not used as a device to punish	2.83	56.6
37	Genuine personal requests for transfer are duly considered	2.77	55.4

38	There is undue resistance from some scientists when organisation initiates fair transfer	2.64	52.8
	Promotion		
39	Ensures scientists' promotion in the right time	1.50	30.0
40	Concerned with keeping the promotional policies up-to-date	1.61	32.2
41	Scientists do not get unmerited promotion	2.88	57.6
42	Concerned with making "promotion within" as far as practicable	2.34	46.8
	Rewards		
43	Good work done is rewarded	1.77	35.4
44	Superiors usually appreciate good work	2.21	44.2
45	Committed to provide all practicable physical facilities to a sincere scientist	2.22	44.4
46	Considers pay and other incentives as powerful motivators of work	2.34	46.8
	Organisational culture		
47	Problems and issues are brought into open with a view to solve them (Confrontation)	2.85	57.0
48	One cannot take fellow scientists at their face value (Trust)	2.74	54.8
49	Scientists are helpful to each other and are willing to work in teams (Collaboration)	2.93	58.6

From Table 38 and 39 it was revealed that out of 62 items selected to study the HRD climate 49 items had percentage mean scores less than 60 and only

13 items had percentage mean scores above 60. Further, the dimensions training. Manpower planning and forecasting, performance appraisal, promotion and rewards had not possessed single item with percentage score above 60.

4.3 Statistical analysis

4.3.1 Correlation of personal variables with HRD climate

Table 40. Correlation of personal variables with HRD climate

Sl. No.	Dimensions	Correlation coefficient (r)
1	Educational attainment	0.006
2	Experience	0.004
3	Age	0.030
4	Gender	-0.188**
5	Number of training received	-0.027
6	Number of publications	-0.079
7	Number of project handled	-0.046
8	Number of students guided	0.036
9	Number of seminars, symposia etc attended	0.021
10	Cadre/Designation	0.050

** Significant at 1% level

A perusal of Table 40 revealed the correlation between personal variables and HRD climate. It was found that gender was highly significantly and negatively correlated with HRD climate. Variables such as educational attainment, experience, age, number of students guided, number of seminars, symposia, etc., attended and cadre were positively and nonsignificantly correlated with HRD

climate. Variables, viz number of trainings received, number of publications and number of projects handled were negatively and nonsignificantly correlated.

4.3.2 't' test between gender of the scientists

Table 41. 't' test between gender of the scientists

Sl. No.	Category	Total mean score	Standard deviation	't' value
1	Male	158.37	38.86	3.35**
2	Famale	145.61	27.78	

** Significant at 1% level

Table 41 showed the results of 't' test done to understand the difference in the perception of HRD climate between men and women scientists. The total mean scores obtained by men and women scientists were 158.37 and 145.61 respectively with corresponding standard deviation values of 38.86 and 27.78. The 't' value was significant at 1% level.

4.3.3 Hotelling's T^2 test between stations

Table 42. Hotelling's T^2 value between Main, Regional and Outstations

Stations	Main stations	Regional stations	Outstations
Main stations	-	4.58**	3.89**
Regional stations	-	-	1.79
Outstations	-	-	-

** Significant difference at 1% level

The computed Hotelling's T^2 values between main, regional and outstations were as shown in Table 42. This test was based on the hypothesis that, irrespective of slightly differing administrative set up, the perception of HRD climate by the scientists working in these three categories of stations would be similar. The three categories of stations were mutually compared using the

dimensions of HRD climate taken in the aggregate which was assumed to reflect the scientists perception of HRD climate.

The Hotelling's T^2 test values were, between main station and regional station 4.58, between main station and outstation 3.89 and between regional station and outstation 1.79. The values between main station and regional station, and main station and outstation were significant at 1% level. The value between regional station and outstation was not significant.

4.3.4 Hotelling's T^2 test between cadres

Table 43. Hotelling's T^2 test values between cadres

Cadre	Professor	Associate Professor	Assistant Professor (S.G)	Assistant Professor (S.S)	Assistant Professor
Professor	-	1.85*	1.17	1.77	1.17
Associate Professor	-	-	2.18*	1.12	1.42
Assistant Professor (S.G)	-	-	-	1.43	1.86
Assistant Professor (S.S)	-	-	-	-	1.10
Assistant Professor	-	-	-	-	-

* Significant at 5% level

The Hotelling's T^2 test values were, between professor and associate professor 1.85, between professor and assistant professor (S.G) 1.17, between professor and assistant professor (S.S) 1.77, between professor and assistant professor 1.17, between associate professor and assistant professor (S.G) 2.18, between associate professor and assistant professor (S.S) 1.12, between associate professor and assistant professor 1.42, between assistant professor (S.G) and assistant professor (S.S) 1.43, between assistant professor (S.G) and assistant professor 1.86 and between assistant professor (S.S) and assistant professor 1.10. Table 43 also indicated that there was significant difference in HRD climate between professor and associate professor, and associate professor and assistant professor (S.G)

DISCUSSION

DISCUSSION

Discussion of the results is presented as follows.

5.1 Personal/independent variables

5.2 Human Resource Development climate

5.3 Relationship between personal variables and HRD climate

5.4 Gender differences in the perception of HRD climate

5.5 Differential perception of HRD climate by the scientists of different cadres and stations

5.1 Personal/independent variables

Most professors and associate professors possessed doctorate degree as compared to assistant professors (S.G) and assistant professors (S.S) indicating that many assistant professors both Selection Grade as well as Senior Scale were yet to acquire Ph.D. an essential qualification for promotion. Though diploma is not an essential qualification for promotion a few scientists acquired it in some related field. It was seen that associate professors and assistant professors (S.G) were almost of equal age and experience indicating that the latter did not acquire doctorate yet, to qualify as associate professors. More number of associate professors received national as well as international trainings and attended seminars, symposia, etc., within and outside India than others. Next to professors, assistant professors (S.S) handled more number of KAU projects while more of professors and associate professors handled externally funded projects. The latter situation that more of professors and associate professors handled most externally funded projects was evidently by virtue of their service which was given due weightage by funding agencies. Professors guided more number of postgraduate and doctorate students but Assistant Professors were not seen guiding doctorate students. Scientists in the

higher cadres such as Professors and associate professors had relatively more number of publications.

5.2 Human Resource Development climate

5.2.1 Distribution of Scientists based on perception of HRD climate

While less than half of the scientists perceived the HRD climate prevailing in KAU as moderately favourable, a little less than one-third perceived it as unfavourable and the rest, a little above one-fourth perceived it as favourable. In view of this finding that most of the scientists perceived the HRD climate as either moderately favourable or unfavourable, it can be certainly said that there is a long way to go to achieve the desired level of HRD climate in this organisation. Any organisation that wants to be dynamic and growth-oriented should have an initiating, promoting and facilitating HRD climate.

Findings regarding various work environment dimensions or aspects had been reported earlier from organisations such as State Department of Animal Husbandry, ICAR, etc. For instance, Rajkamal (1985) reported that majority of the veterinary surgeons of Trichur district of Kerala were only somewhat satisfied about their work environment. Manjunatha (1988) found out that most of the lady Veterinary Surgeons of Kerala was not satisfied with the working environment. Samanta (1988), nevertheless, observed that in the ICAR, scientists perceived the motivational climate to be congenial.

5.2.2 Perception of various dimensions of HRD climate

5.2.2.1 Management philosophy

While half of the scientists perceived management philosophy as moderately favourable, just one-third perceived it as favourable. However, One-sixth of the scientists perceived it as unfavourable. The fact that majority of the scientists perceived management philosophy as either moderately favourable or

unfavourable is further supported by the low percentage mean score of 52 to this dimension.

Item-wise analysis of the above dimension showed that there was a less obvious difference between percentage mean score values of first ranked item i.e., the responsibility of the superior to create a healthy and motivating work climate (61.6) and second ranked item, i.e., protective psychological climate to work is what is sensible (60.8). Except for these two items, all other items had percentage mean scores less than 60, the middle score, indicating that these items were not perceived satisfactory.

Since scientists of agricultural universities have tripartite roles such as teaching, research and extension, it is imperative that they need be sufficiently motivated to perform the best in their job. Mishra and Singh (1993) suggested that increased motivation improved the performance of employees of all kinds. Regarding the second ranked item, pertaining to psychological climate, the organization seems to have realized the importance of providing a protective psychological climate to work, as evident from a relatively higher percentage mean score (60.8) of this item. Rao (1991a) also opined that the organization should provide a positive emotional and psychological climate for the development of its employees. A stressful climate in the work place anyhow is not congenial for performing any role especially teaching, research and extension.

The item, scientists' commitment can be increased by providing opportunity was ranked third with a relatively low percentage mean score of 53. By creating opportunities for personal development of the employee, the organization can help to foster an element of gratitude, which would be instrumental in ensuring better commitment of the employee in his work. Therefore, better opportunities to scientists may be provided, in terms of physical and other facilities to discover and use their potential in the work place.

The item, that was ranked fourth was scientists' favourable feeling towards organization can be ensured by providing for their basic and higher needs, with a low percentage mean score of 50. Maslow (1954) in his need hierarchy theory of motivation stated that human needs are arranged in hierarchy, whenever lower needs are satisfied, other immediate higher needs come into play. The scientists', concern about this item can be understood in the light of their dissatisfaction about dimensions like promotion, performance appraisal and rewards, the details of which are discussed later in this section.

The item, scientists have unlimited potential to develop and their behaviour can be changed was ranked fifth with a low percentage mean score of 47.8. Rao and Pereira (1986) emphasized that besides valuing employees as great resources, higher authorities should be convinced of the fact that competencies can be developed in people at any point of time, and this was good for employees as well as organisation.

While, the item, management values the human resources first was ranked sixth, the item scientists aspiration can be aligned with that of organizational goal was ranked last with percentage mean scores of 46.2 and 44.8 respectively. These findings sufficiently revealed that scientists felt the management had not considered human resources as of utmost importance and that their aspirations and the organisational goals were inseparable. An organisation managing its business by objectives (MBO) should not view personnel aspirations and organisational objectives as separate entities instead should be viewing them as inseparable and therefore should be intelligently integrating these two for better organisational effectiveness.

5.2.2.2 Training

Majority of the scientists perceived training component of HRD climate as only moderately favourable and even one-fifth perceived it as unfavourable. The low percentage mean score of 41.44 to this dimension further confirmed this finding. Training is an integral and important component of HRD through which one acquires and sharpens capabilities. Sometimes training is confused with HRD itself. Prasad and Bannerjee (1994) indicated that trained manpower was the biggest asset of any organisation. Rao (1991b) opined that training is used as an important mechanism to develop human resources in the educational sector.

The item, unreasonable restrictions are imposed for training obtained only a lowest percentage mean score (47.6) though ranked first, implying that the organisation for some reason or other and to some extent unreasonably restricted scientists from undergoing training. The reasons for this need to be correctly understood. Anyhow, it was presumed that lack of sufficient manpower and pre-occupation of available staff in routine duties and responsibilities such as teaching, research and extension work could be the reason for imposing some restriction.

The scientists mostly felt that they were not adequately supported, financially, to undergo training as evidenced from a low percentage mean score (46.6) of the item concerning adequacy of financial support to undergo training. Whether financing was hampered by shortage of funds or it was due to lack of a liberal policy regarding training need to be ascertained. In the case of the item regarding availing of training opportunities, scientists felt that they, in general, could not avail the first opportunity to get trained in a relevant field as indicated by a low percentage mean score (42.4) of the item. This delayed opportunity could be due to either such training were not communicated or announced in time to the scientists or they being pre-occupied were send for training on a later occasion only. Further more since the content and timing of training most often are decided unilaterally by

the training institutions, the content of such training becomes impartinent and attending to it become inconvenient to the scientists. Further training in certain disciplines or areas is too scanty and if at all organised scientists concerned may be pre-occupied then, as said early.

The items, training to be undergone was being decided jointly by the scientists and management and scientists were send for training as and when need for such an expertise was felt were ranked fourth and fifth respectively with corresponding percentage mean scores of 40.8 and 39.2. Therefore, greater efforts are required to decide upon the training jointly by the incumbents and the management and to send for training as and when need for such expertise is felt.

The item, organisation is concerned with assessing periodically the training needs of the scientists was ranked last with a corresponding mean score of 32.2 indicating that regular assessment of scientists' training needs by the organisation was not done.

It is important that the scientists equip themselves to meet their everchanging requirements. This view was endorsed by Subramanyam (1996) who opined that every teacher should undergo training programme atleast once in every three years, so as to update their knowledge and skills and keep themselves motivated. In this study it was seen that the scientists in general attended to only two to three national level trainings and professors in particular a maximum of three trainings irrespective of the lengthy service of the latter and probably because, earlier training was not a mandatory for promotions. This indicated that the management need to be more serious about the importance of training as a vital component of HRD.

Further, the training undergone should be useful to both scientists as well as organisation. The success of any training programme can be ensured only if the

needs of the organisation are congruent with those of trainees'. Universities send their scientists for training with a view to help them acquire new skills or refine already acquired skills so as to enhance organisational efficiency. Scientists view training programme as a means to career development apart from the reasons cited above. At the same time, training acquired should be applicable to work situation and if it is not transferable the efforts would be futile. Verma and Garg (1995) emphasized the need for imparting training suited to the work environment.

5.2.2.3 Career planning and development

Regarding this important domain of HRD, a little above one-third only perceived it as favourable. Almost half of the scientists perceived it to be moderately favourable and the rest totally unfavourable. The low percentage mean score of 47.6 to the dimension further supported this general unfavourable perception.

By undertaking responsibilities one can gain and accumulate experience in different work roles. Further, the individual should have a bent of mind to shoulder responsibility and develop. In this regard, favourable inclination was observed among the scientists as evidenced from their response to the item, viz., juniors consider responsibilities as an opportunity for development, which was ranked first with a relatively higher percentage, mean score of 63.4.

Even as junior scientists were enthusiastic about taking up responsibility, there was lack of delegation of authority. This was clearly understood from the low percentage mean score of 49.6 to the item–delegation of authority to encourage juniors to handle higher responsibilities. Thus, it becomes imperative for the management to deliberately keep on encouraging youngsters or help maintaining the enthusiasm to work, through delegating authority.

Further, the HRD interventions such as regular feedback for career development, and pointing out career opportunities were on low ebb as understood

from the low percentage mean scores of the items, scientists were regularly given feed back and guided in their career development (38) and career opportunities were pointed out to juniors by seniors (37). These items were ranked third and fourth respectively.

Career planning assumes greater significance in view of the increasing demand for developing scientists' capabilities to face the challenges of organisational change consequent upon new economic policies such as liberalisation, privatisation and globalisation. In addition, it should sequence the role experiences of an individual and lead him to an increasing level of responsibility, status, power and rewards, thus fitting a meaning to his life. In fact, it is synthesising and harmonising the needs of the employees, so that they realize self-fulfillment and the organisational effectiveness is improved. If that is so, a state agricultural university of such a big stature having enormous stakes in the development of farming sector should definitely evolve a clear career planning and development policy.

5.2.2.4 Manpower planning and forecasting

Only about one-third of the scientists perceived manpower planning and forecasting as favourable. The rest two-third perceived it as either moderately favourably or unfavourable. The low percentage mean score of 41.2 to the dimension confirms this unfavourable feeling.

Item-wise analysis also revealed that all the items under this dimension were perceived as unfavourable with their percentage mean scores below sixty, the mid point. The item, realization of a good Management Information System (MIS) as an essential pre-requisite for making manpower requirement forecast though was ranked first, had a percentage mean score of just 49.6. MIS, processes all relevant information pertaining to the personnel of the organisation and make use of it in

planning for organisational development. Based upon such information management can assess the manpower requirement; conduct recruitment, placement, performance appraisal and training etc. But the results of this study pointed out the inadequacy of such a system in the organisation.

The item, manpower planning duly considers both number of trained people and the quality of training was ranked second with a percentage mean score of just 46.8. This also reminds the management not to loose sight of the importance of having enough number of trained people in various fields as well as the appropriateness or quality of training received especially in the emerging fields, for the better performance of the organisation.

Further, the item that selection, placement, and training of scientists were based on sound forecasting of manpower requirement obtained a very low percentage mean score of 40.6 implying the inadequacy of forecasting of manpower requirement.

Major corrective and reformative steps can be taken up with regard to manpower planning if a sound MIS is established. However, the scientists felt that management was not so critical about it as indicated by a low percentage mean score of the item that the management is concerned with building up a sound MIS.

It is evident from the very low percentage mean scores of the items, viz manpower planning and forecast of the manpower requirement are being done equitably for each and every department or unit (35.8) and the management is concerned in assessing periodically and in advance the availability of manpower resource (34.2) that management had not seriously considered these important aspects.

In general, the findings regarding manpower planning and forecasting pointed out to the need for a critical review of the present situation and undertaking reformative measures urgently.

5.2.2.5 Performance appraisal

Performance appraisal, a very critical component of HRD is the tool for making general personnel decisions, such as promotion, transfer and termination and identifying training and development needs. It also serves as a feed back to the employees and can be used as the basis for reward allocation.

The results of this study anyhow revealed that only about one-sixth of the scientists perceived the dimension – performance appraisal as favourable. The remaining five-sixth of the respondents perceived it as either moderately favourable or unfavourable. The fac that only a minority perceived this dimension as favourable was further supported by the low percentage mean score of 41.8.

Thus, it seemed that the organisation had failed to take cognizance of its significance. Further, the percentage mean score of an item of performance appraisal studied, viz the organization realises performance appraisal as an important management activity that augments scientist's productivity was one very low (51.0) indicating that the organisation had not, to the desired level, realised performance appraisal as an important management activity and about its potential in augmenting scientists productivity.

A mutually acceptable appraisal system enables for better goal setting and role clarity. Inadequate and vague criteria will lead to unsatisfactory and unequitable pay off by the organisation, decreasing the morale and output of the scientists. Such an apprehension prevailing among the scientists was evident from the low mean score (41.6) to the item that the organisation has been concerned with keeping the procedures and techniques of performance appraisal foolproof and

appropriate. Basch and Lacy (1983) had also observed that government scientists were evaluated by a narrow set of criteria.

Even more noticeable thing was the scientists dissatisfaction with the regularity of performance appraisal. The item that the organisation is concerned with conducting performance appraisal was ranked last with a low percentage mean score of 33. This indicated that there is need for evolving a suitable mutually agreeable performance appraisal system and applying it on a continuous basis. This has been rightly emphasized by Rao (1991a) who observed that periodic review of performance was one of the important factors in the development of an incumbent.

5.2.2.6 Placement

A suitable placement is one in which an employee finds that it is a good place to work and will be able to function effectively to meet high standards. It reduces employees' turn over and absenteeism and improves morale. The results indicated that almost half of the scientists' perceived placement as either moderately favourable or unfavourable even as little over half of the respondents perceived it as favourable. The low percentage mean score of 45.6 of this dimension further confirmed this finding.

The results of item-wise analysis gave a better picture of the scientists' perception of this dimension. The item, placement is based on workload rather than on the basis of specialization was ranked first with percentage mean score slightly above sixty. This indicated that specialization was being considered to a considerable extend while placements were made. However, the item, placement to appropriate position is being done within a reasonable period had a low percentage mean score (40.6) implying that the management should be much more committed to effect appropriate placement, especially of new recruits and newly trained scientists, within a reasonable period of time.

The item, second placement is being practiced in the organisation and it follows the procedure of the right man for the right job both had very low percentage mean scores of about forty. Thus it becomes evident from these observations that the management should reconsider the placement policy and make necessary modifications to make `good fits' between the individual abilities and the job requirements. It is only natural that by virtue of experience, qualification, aptitude etc. individuals develop an interest and capability in a particular field that might be academic, research, extension, administration, etc. The management need to acknowledge this fact and should be providing appropriate placement thereby facilitating both individual and organisational development.

5.2.2.7 Communication

Only one-half of the scientists studied perceived the status of this important HRD dimension to be favourable. Why, almost an equal percentage of scientists perceived it as either moderately favourable or unfavourable was understood from a micro-level analysis of the dimension communication which had an overall percentage mean score of 51.0. A micro-level item-wise analysis showed that the scientists perceived the item, opportunities to take part in scientific seminars, conferences, workshops, etc., and exchange ideas, within and without the organisation had a moderate percentage mean score of 64.2. This indicated that though the scientists were relatively satisfied with this item, still there was scope for improvement. The scientists themselves should explore more possibilities vis-à-vis the management and should also be organising more of such interaction sessions. At the same time there shall be a liberal policy in this regard, so that there are enough moral and financial support to the scientists. Francis *et al.* (1982) observed that interaction among scientists was necessary for success in their careers.

The item, decisions are passed on without distorting them had a modest percentage mean score of about 60. This indicated that distortion of information to a

certain extent do occur in the organisation. Distortion of information may occur in the upward, downward or lateral communication processes. Even the culture and sub-cultural barriers, gender related barriers and barriers stemming from implicit assumptions operating in the organisation hinder the free flow of information. Appropriate interventions are required reckoning these facts in order to reduce distortion of information.

The relatively low percentage mean score of 56.4 to the item, regarding access to literature to update knowledge reflected the scientists' dissatisfaction about it. Gearing up of the library and electronic media facilities would definitely improve the situation.

The item, opportunities to interact with higher ups and ventilate grievances obtained a low mean score of 48.6 indicating a general unfavourable feeling. Lack of enough opportunities for scientists across the hierarchy to meet and also interact with the management could be the reason. Deliberate attempts at creating more such opportunities through building up a permanent institutional mechanism would help. Regularity of meetings, conferences, etc., and follow up are important. Of late, the use of information technology is picking up in this organisation, yet scientists were not that happy with it since the item, communication gadgets were sufficient for ready exchange of important information was ranked fifth with a percentage mean score of just 46.2. The limited access to and training in using modern communication gadgets like computer, fax, E-mail, internet etc. at present could be the reason. The initiative taken recently to establish ARIS cells and to install intercom facilities etc., should be continued and even extended to department and student levels. The regional and remote research stations should also be included in this network.

The item, receiving only late communication from higher ups, was ranked sixth with a very low percentage mean score of 42.6. This delayed

communication could be because either the originator of message or those intermediaries on the line or both were not taking timely decisions and passing them on. There can be a situation that a decision taken in the right time even is not instantly passed on. Thus, it becomes apparent that all the persons involved need be vigilant, evolve simple procedures, such as general formats, single window clearances, provision to take care of an individual absence, etc. Modern communication gadgets may be increasingly used to speed up the process. Information delayed is information denied. Prasad and Bannerjee (1994) too observed that the success of management depends on clear, timely and accurate communication.

However, the item, timely responding to opinions and suggestions was ranked last with a very low percentage mean score of 37.8. This indicated that the upward communication was guarded. Fisher (1994) observed the reasons for a disturbed upward communication as attitudes and perceptions common to sub-ordinates, such as the desire for advancement, attitudes and actions of superiors such as reluctance to accept criticism; and by organisational characteristics, such as a formalistic structure or the MUM effect. Therefore, candid interactions among the incumbents are badly required to unfreeze the present mental statuses and build or cultivate new receptive and reciprocal culture. By this the juniors get motivated and identify with the organisation. Even Mathur and Prasad (1977) and Manjunatha (1998) have emphasised the importance of timely communication in their studies.

5.2.2.8 Teamwork

A little above half of the scientists perceived the HRD dimension teamwork to be favourable. The rest perceived it to be either moderately favourable or unfavourable. This relatively better percentage mean score of 60 further confirmed the relatively better perception of the dimension. Siddaramaiah and

Rajeev (1993) also reported that scientists of KAU had perceived team spirit favourably.

Component-wise analysis of this dimension revealed that the items regarding scientists' attendance during task accomplishment, helping relation among scientists during teamwork, and free and frank communication during teamwork were ranked first, second and third respectively with corresponding percentage mean scores of 70.8, 67.4 and 65.4. This indicated that the scientists imbibed a relatively good team spirit with respect to the above items. Good attendance, willingness to extend help and sharing information are all essential requirements for good teamwork.

However, the percentage means scores of the rest of the items were not comparatively satisfactory. The item that the scientists disown their roles during task accomplishment had a percentage mean score of about 55 and was ranked fourth. The fifth ranked item, understanding among scientists about the work to be shared had percentage mean score of just 52. Further the item that the management realizes the importance of teamwork and supports it had a very low percentage mean score of just 48.8.

The tendency to disown roles during task accomplishment, lack of proper understanding among the scientists about the work to be shared are all possibly due to lack of role clarity and clear goal setting which need to be improved upon. A proper reward structure, combined with management's commitment, realizing the importance of teamwork, can further gear up team spirit. This dimension of HRD is of utmost importance since promoting inter-disciplinary teamwork as a better approach to research issues in agriculture is the need of the time.

5.2.2.9 Transfer

Little over half of the scientists perceived transfer as favourable and the remaining as either moderately favourable or unfavourable. The percentage mean scor of 54.6 to the dimension further confirms this finding. Further, item-wise analysis revealed that the item regarding frequency of transfer was ranked first with a percentage mean score of 63. This indicated that the scientists were relatively contented with the frequency of transfer.

The low percentage mean score of just 56.6 of the item, transfer is not used as a device to punish has to be viewed critically since it reflected a certain amount of dissatisfaction. Transfer can be used as a procedure for increasing an individuals job satisfaction, providing opportunity for better team work and to avoid lay-off. But when used as a device to punish an incumbent, it may have ramifications. The item genuine personal request for transfers are duly considered had a similar low score (55.4) and was ranked third implying again a certain amount of discontentment. Rao (1991c) observed that transfer based on employee preference result in good performance.

Further, the item, there is undue resistance from some scientists when organisation initiates fair transfer was ranked fourth with a percentage mean score of about 53. This indicated that the scientists agreed that when management effected transfers for its developmental needs, some scientists were not ready to accept it. Nevertheless, such resistance put up by scientists will not prove good in the larger interest of the organisation. Rao (1990c) observed that transfer of employees was necessary in an organisation having wide geographical area.

The last ranked item, some scientists can get transfer as and when required obtained a very low percentage mean score of 45.4, suggesting that such

things happened to some extent and since this could adversely affect the morale of the scientists, appropriate corrective measures were warranted.

5.2.2.10 Promotion

With respect to the dimension promotion, a little less than one-third of the scientists perceived it as favourable and the remaining majority perceived it as either moderately favourable or unfavourable. Further a relatively low percentage mean score of 41.6 to this dimension supported this predominantly unfavourable feeling towards it. Item-wise analysis revealed the details of the dimension.

Seniority, individual achievements, abilities to shoulder responsibilities etc. are counted for promotion. However, how objectively the latter criteria is assessed would decide on the transparency of the exercise. The item, scientists do not get unmerited promotion though ranked first had a percentage mean score, 58 only. This, in fact indicated that the scientists were expecting much more transparency and objectivity in promotional policies so that unmerited individuals were not promoted. The item, the management is concerned with making promotion within, as far as practicable, to ensure better promotion chances for its own scientists eventhough ranked second, had a low percentage mean score of 47 reflecting the strong desire to make promotions within.

Whereas the items, organisation is concerned with keeping the promotional policies up-to-date and organisation ensures scientists promotion in the right time were ranked third and fourth respectively with corresponding low percentage mean scores of 30.2 and 30.0. These findings pointed out that neither the promotion policies were updated regularly nor scientists were promoted in time.

5.2.2.11 Rewards

Only about one-third of the scientists perceived rewards as favourable, while the remaining perceived it as either moderately favourable or unfavourable. This predominantly unfavourable feeling towards this dimension is further reflected in the low percentage mean score of 42.8. Item-wise analysis also revealed that all the items under this dimension had low percentage mean scores implying scientists' unfavourable perception of the reward system in the organisation. Samanta (1979) reported a similar finding that most of the village level workers were only somewhat satisfied with incentives, rewards and technical guidance.

The influence of rewards on employees can be better understood in the light of Herzberg's Two Factor theory of motivation. Herzberg (1957) observed that certain factors or motivators, were associated with satisfaction of job. Their existence will motivate people to superior performance, but their absence does not make them dissatisfied. The motivators include achievement, recognition, challenging work, advancement and growth in the job-all related to job content. Whereas, others or hygiene factors tend to be associated with dissatisfaction. Their existence will yield no satisfaction (not dissatisfaction), but their absence would result in dissatisfaction. The hygiene factors are company policy and administration, supervision, working conditions, interpersonal relations, salary, status, job security and personal life-all related to job context.

Accordingly, pay which is one of the hygiene factor was perceived unfavourable as indicated by a low percentage mean score of 46.8 to the item, organisation considers pay and other incentives as powerful motivators of work. Even, Adam's (1963) Equity theory states that there should be a balance of the outcomes-inputs relationship for one person in comparison with that of another person, i.e., equal pay for equal work.

Also, the working conditions which is again a hygiene factor was perceived unfavourable as indicated by the low percentage mean score of 44.4 to the item, organisation is committed to provide all practicable physical facilities to a sincere scientist. Adequate physical facilities not only act as essential inputs that augment scientists' productivity, but also raise their morale and increase their commitment to organisation. Rao (1991) stated that special privileges and desired trainings were given to sincere workers in some organisations as rewards.

Further, the items, superiors usually appreciate good work done in appropriate fora and good work done is rewarded in terms of promotions and lateral transfers had low percentage mean scores of 44.2 and 35.4 respectively revealing that recognition and advancement both of which are motivators were not perceived as favourable. When an employee feels that his work is being watched and appreciated, he will be motivated and try to excel. This is particularly true in case of agricultural university scientists, who handle numerous research projects and involve in various academic activities. This view was endorsed by the findings of Gupta and Sharma (1971) that recognition was a motivating factor for scientists' productivity. Sen and Ahmed (1980) too observed that in any research organisation where recognition and credit were either denied or distributed unfairly would result in greater conflict.

5.2.2.12 Organisational culture

Organisational culture was studied in terms of certain contextual factors viz., openness, collaboration, autonomy, proactivity, confrontation and trust. It was seen that a little above one-third of the scientists perceived organisational culture as favourable. Whereas, about half of them perceived it as moderately favourable and the remaining perceived it as unfavourable. It should also be noted that the dimension was ranked first with a percentage mean score of 60.2 among all the

dimensions of HRD climate studied. This indicated that scientists were relatively more satisfied with organisational culture.

Organisational culture is the general pattern of behaviour, shared beliefs, and values that members have in common. It involves the learning and transmitting of knowledge, beliefs, and pattern of behaviour over a period of time, which means that an organisational culture is fairly stable and does not change fast. It is specific to an organisation and distinguishes one organisation from another.

The items, scientists feel free to discuss their ideas, activities and feelings with each other (openness) and scientists are helpful to each other and are willing to work in teams (collaboration) had percentage mean scores of 65.6 and 64.4 respectively and were correspondingly ranked first and second. This result is in fact a sure indication of a somewhat open and collaborative culture prevailing in the organisation.

The items, freedom to work independently with responsibility (autonomy) and there is enough encouragement to take initiative and risk (proactivity) had percentage mean scores of 60.4 and 58.6 respectively. Though the latter item had a comparatively lesser percentage mean score, the observations were indicative of the prevalence of a culture in which there was some freedom to work on own initiative and risk. Enough autonomy becomes imperative to unleash the creativity and potential of the scientists. The items, problems and issues are brought into open with a view to solve them (confrontation) and one cannot take fellow scientists at their face value (trust) had lower percentage mean scores of 57 and 54.8 respectively revealing that the organisational culture was to some extent reserved and self-centered in the context of the factors trust and confrontation. Rao (1991e) indicated that when employees feel free to discuss various issues and problems affecting the organisation and they work in uninhibited way; when the employees trust each other; when employees tend to take the initiative and more things happen

on their own; when the employees collaborate with each other; when there is little gap in what the employees say they will do and what they actually do; and, when people give and receive feedback and make efforts to develop their capabilities, the HRD climate is said to be good.

Therefore, there is the need for cultivating a still better organisational culture than one at present so that a better HRD climate would prevail for the scientists to carry out teaching, research and extension work.

5.2.2.13 Items with percentage mean scores less than or above sixty

A overall view of the items which measured the HRD climate indicated that most of the items (49 out of 62) had percentage mean scores of less than 60. This revealed that HRD climate as perceived by the scientists was not upto the desired level. The fact that none of the component items under five dimensions, viz training, manpower planning and forecasting, performance appraisal, promotion and rewards obtained a percentage mean score above 60 reflected the scientists' discontentment with the present situation of these very important HRD dimensions. The low percentage mean score of the five dimensions further confirmed this.

Nevertheless, 13 component items partly representing the various dimensions, viz management phylosophy, career planning and development, placement, communication, teamwork, transfer and organisational culture had percentage mean scores above 60 indicated that the scientists perceived these items as relatively favourable. Anyhow, the range of percentage mean scores of these items was 60 to 70 pointed to the fact that there was enough scope for further improvement.

5.3 Relationship between personal variables and HRD climate

It was seen that among the personal variables studied only gender was significantly correlated with HRD climate. This revealed that scientists perception of HRD climate was not associated with any of the selected personal variables, viz educational attainment, experience, age, cadre, number of trainings received, number of publications, number of projects handled, number of students guided and number of seminars, symposia and conferences, etc., attended.

5.4 Gender differences in the perception of HRD climate.

It was seen that male scientists had a significantly higher HRD climate score than female counterparts. This finding was in agreement with the view of shapir and Stern (1975) who found that more male than female professionals were satisfied with their jobs. But, in contrast, Pratap and Gupta (1986) found that female bank employees were more satisfied than the male counterparts.

It is only common knowledge that workingwomen have considerable role conflict. For them the household work and job in the organisation are not harmonious most of the time and naturally they would be more perturbed than the male counterparts. Ghadially and Kumar (1987) found that variability in workload, work overload, lack of participation in decisions and conflict between home activities and job were some of the stressors which caused stress among women professionals. Women scientists of this study too might be subjected to such stressors and because of these they might not participate actively in resource development plans like training, higher learning, teamwork, etc. In view of the above facts a comprehensive and supportive policy regarding HRD need to be evolved in this organisation.

5.5 Differential perception of HRD climate by the scientists of different cadres and stations

The results of Hotelling's T^2 test revealed that there was a highly significant differential perception of the HRD climate among scientists of main, regional and out stations. It is a fact that scientists of main stations have better communication facilities, more opportunities to get informed by attending seminars, symposia, etc., conducted within their campuses, more chances of interaction among scientists from different fields so on and so forth, than those of regional or remote stations. These factors among others could be the reason why the perception of the HRD climate by both the scientists of regional and remote stations was one different from that of main stations. Anyhow a more comprehensive study on the nature and cause of the perceptual differences is essential.

Hotelling's T^2 test further revealed that there was a significant difference in the perception of HRD climate between professors and associate professors and between associate professors and assistant professors. Rajkamal (1979) reported that the perception of the working environment by the Veterinary Surgeons to be the different from that of either Livestock Assistants or Village Extension Officers. As suggested earlier with regard to perceptual differences among scientists from different stations a more comprehensive study on the nature and causes of the perceptual differences among cadres may be desirable to explain this phenomena.

SUMMARY

SUMMARY

Kerala Agricultural University has the mandate of technology generation, validation and dissemination through teaching, research and extension education for the growth of farming sector in the state. Scientists are primarily responsible for translating this mandate into action. As part of their roles they train and develop the technical manpower needed for the development departments of the state such as the department of agriculture, animal husbandry, dairy and various other related corporations and boards responsible for planning and implementing development programmes for the welfare of the farming community. They are to be immensely involved in carrying out problematic research for finding out solutions to the multifarious problems faced by the farmers and help augment productivity of their lively-hood systems. Besides, the task of capacity building of personnel such as farmers, technical people, extension workers involved in agriculture and allied sectors through re-training, counseling, etc., rests on the scientists of the University. Further, of late, they are actively involved in the peoples planning programmes too as resource persons.

Thus there are many stake holders, to whom the scientists of this university are responsible. Instantly, it becomes very important that a congenial work environment be prevailing in the work place for the scientists to efficiently fulfill their roles. This work environment should be one facilitating and enabling the growth and development of the scientists. In other words, the mandate of technology generation, validation and dissemination through teaching, research and extension could come true if only a favourable HRD climate prevailed in the organization. Any organization that wants to be dynamic and growth oriented must foster continuously the development of its human resources and for this a congenial HRD climate should prevail. In view of the above facts a probe into various dimensions of HRD climate prevailing in the Kerala Agricultural University was made with the following objectives.

1. To understand the scientists' level of satisfaction of HRD climate.
2. To understand the strength of various dimensions of HRD climate and
3. To draw inferences and give suggestions for the betterment of HRD climate.

A purposive sampling and questionnaire method of data collection were adopted. A total of 262 scientists constituted the sample. Twelve dimensions of HRD climate were analysed. Background information on 10 personal variables were collected. Statistical tests like mean, simple percentages, correlation test, `t' test, Hotelling's T^2 test, Delinious Hodge's cumulative $\sqrt{f}$ method etc. were made use of.

The study revealed that majority of professors and associate professors possessed doctorate degree. Relatively, more number of associate professors received national as well as international trainings and attended to seminars, symposia, etc., within and outside India. Next to professors, assistant professors (S.S.) handled more number of KAU projects while more number of professors and associate professors handled externally funded projects. Professors guided more number of post graduate and doctorate students and had more number of publications than others. Out of ten personal variables studied gender was negatively correlated with HRD climate.

It was further revealed through `t' test that women scientists were less satisfied with the HRD climate than their men counter parts.

Twelve dimensions of HRD climate, viz management philosophy, training, career planning and development, manpower planning and forecasting, performance appraisal, placement, communication, teamwork, transfer, promotion, rewards and organizational culture were studied.

A little above one-fourth of the respondents only perceived overall HRD climate as favourable, the remaining three-fourth perceived it as either unfavourable

or moderately favourable. This indicated that the HRD climate prevailed in KAU was one not very favourable to the scientists.

It was observed that the average score of scientists for the selected 12 dimensions was ranging in terms of percentage range to maximum score, between 41.2 per cent and 60.2 per cent. It was evident that organization culture (60.2%) has been identified as the relatively most dominant dimension of HRD climate by the scientists followed by teamwork (60%), transfer (54.6%), management philosophy (52.0%), communication (51.0%), career planning and development (47.6%), placement (45.6%), rewards (42.8%), performance appraisal (41.8%), promotion (41.6%), training (41.4%) and manpower planning (41.2%). The worth noting point is that ten dimensions have got below 60 per cent of score value and two just above that. It could be concluded that almost all the dimensions of HRD climate need to be improved to create a favourable HRD climate among the scientists. The dimensions, rewards, performance appraisal, promotions, training, manpower planning and forecasting obtained comparatively very low score values.

On comparison, it was found that there was a considerable gap between the perceptions of men and women scientists. Relatively, women scientists' perceived poor HRD climate in terms of the selected dimensions. Further, the scientists of regional and remote stations perceived the HRD climate differently from those of main stations. Similarly, there was a significant difference in the perception of HRD climate between professors and associate Professors and between associate professors and assistant professors (S.G). Anyhow, a more comprehensive study on the nature and cause of the perceptual difference is essential.

The strength of various component factors of HRD climate were as follows. The strength in terms of percentage mean score ranged from 30 to 70.8 per cent and the component factors are presented in the decending order of their percentage mean score or strength as follows:

Sl.No.	Items	% mean score
1	Scientists' attendance during task accomplishment (Teamwork)	70.8
2	Helping relation among scientists during teamwork (Teamwork)	67.4
3	Feel free to discuss ideas, activities and feelings with each other (organizational culture)	65.6
4	During teamwork scientists communicate each other freely and frankly (Teamwork)	65.4
5	Scientists are helpful to each other and are willing to work in teams (organizational culture)	64.4
6	Opportunities to take part in scientific seminars, conferences, etc. (Training)	64.2
7	Placement is based on work load rather than specialization (Placement)	63.8
8	Juniors consider responsibilities as an opportunity for development (Career planning and development)	63.4
9	Frequency of transfer (Transfer)	63.0
10	It is the responsibility of the superior to create a healthy and motivating work climate (Management philosophy)	61.6
11	Psychological climate to work is what is sensible (Management philosophy)	60.8
12	Decisions are passed on without distorting them (Communication)	60.4
13	Freedom to work independently with responsibility (Organisational culture)	60.4
14	Scientists are helpful to each other and are willing to work in teams (Organisational culture)	58.6
15	Scientists do not get unmerited promotion (Promotion)	57.6

16	Problems and issues are brought into open with a view to solve them (Organisational culture)	57.0
17	Transfer is not used as a device to punish (Transfer)	56.6
18	Access to literature to update knowledge (Communication)	56.4
19	Genuine personal requests for transfer are duly considered (Transfer)	55.4
20	One cannot take fellow scientists at their face value (Organisational culture)	54.8
21	Scientists disown their roles during teamwork (Teamwork)	54.8
22	Scientists' commitments can be increased by providing opportunity (Management philosophy)	53.0
23	Undue resistance from some scientists when organisation initiates fair transfer (Transfer)	52.8
24	Understanding among scientists about the work to be shared (Teamwork)	52.0
25	Realises performance appraisal as an important management activity (Performance appraisal)	51.0
26	Scientists' favourable feeling of organization can be ensured by providing for their basic and higher needs (Management philosophy)	50.0
27	Delegation of authority to encourage jouniors to handle higher responsibilities (Career planning and development)	49.6
28	Realises that good MIS is an essential pre-requiste for making manpower requirement forecast (Manpower planning)	49.6
29	Management realizes the importance of teamwork and supports it (Teamwork)	48.8
30	Opportunity to interact with higher-ups and vensilate grievances (Communication)	48.6

31	Management's feeling that scientists have unlimited potential to develop and their behaviour can be changed (Management philosophy)	47.8
32	Unreasonable restrictions imposed for training (Training)	47.6
33	Management considers pay and other incentives as powerful motivators of work (Rewards)	46.8
34	Management is concerned with making "promotion within" as far as practicable (Promotion)	46.8
35	Manpower planning duly considers both number of trained people and the quality of training (Training)	46.8
36	Scientists are provided adequate financial support for higher learning/training (Training)	46.4
37	Communication gadgets are sufficient for readily exchanging important information (Communication)	46.2
38	Values the human resource first than other physical resources (Management philosophy)	46.2
39	Some scientists can get transfer as and when required (Transfer)	45.4
40	Scientists' aspiration can be aligned with that of organizational goals (management philosophy)	44.8
41	Committed to provide all practicable physical facilities to a sincere scientist (Rewards)	44.4
42	Superiors usually appreciate good work done (Rewards)	44.2
43	Receiving only late communication from higher-ups (Communications)	42.6
44	Scientists can avail the first opportunity to get trained (Training)	42.4
45	Concerned with keeping the procedures and techniques of performance appraisal foolproof and appropriate (Performance appraisal)	41.6

46	Training to be undergone is being decided jointly by the scientist and management (Training)	40.8
47	Selection, placement and training of scientists are based on sound forecasting of manpower requirement (Manpower planning and forecasting)	40.6
48	Placement to appropriate position is being done within a reasonable period (Placement)	40.6
49	"Second placement" is being practiced in this organization (Placement)	40.2
50	Concerned with build up a sound management information system (Manpower planning and forecasting)	40.0
51	Scientists are send for training as and when need for such an expertise in felt (Training)	39.2
52	Follows the procedure of "The right man for the right job" (Placement)	38.2
53	Scientists are regularly given feedback and guided in their career development (Career planning and development)	38.0
54	Timely responding to opinions and suggestions (Communication)	37.8
55	Career opportunities are pointed out the juniors by seniors (Career planning and development)	37.0
56	Manpower planning and forecasting is being done equitably for each and every department (Manpower planning and forecasting)	35.8
57	Good work done is rewarded (Rewards)	35.4
58	Assessing periodically the availability of manpower resource requirements (Manpower planning and forecasting)	34.2
59	Conducting performance appraisal at regular intervals (Performance appraisal)	33.0

60	Management is concerned with assessing periodically the training needs of the scientists (Training)	32.2
61	Management is concerned with keeping the promotional policies up-to-date (Promotion)	32.2
62	Ensures scientists' promotion in the right time (Promotion)	30.0

It was seen that out of a total of 62 component items studied under 12 HRD dimensions, 13 component items obtained score values above 60 per cent. All the rest 49 items obtained score values below 60 per cent.

Besides looking into the strength of various dimensions and components the issues of HRD climate was examined from another angle also. In this context, an attempt was made to examine the number of scientists perceiving the HRD climate as favourable, moderately favourable and unfavourable, classified that way after applying Delinious Hodge's $\sqrt{f}$ method. The following percentage of scientists perceived the various dimensions to be favourable.

55.35% - Transfer

54.58% - Teamwork

53.44% - Placement

51.53% - Communication

35.12% - Organisational culture

34.35% - Career planning and development

33.25% - Rewards

32.82% - Manpower planning and forecasting

30.92% - Management philosophy

30.25% - Training

30.15% - Promotion

16.41% - Performance appraisal

Suggestions for improvement of HRD climate

The saying "Rome is not built in a day" seems to be appropriate to HRD climate because HRD is not a short term process but an evercontinuing one. In view of this truth, the responses of the scientists in this study might not be a reflection of the HRD climate that has been prevailing since the immediate past. Instead might be based on several years of experience. Similarly, an ideal HRD climate could not be achieved in a day or two but might take several months or years. Anyhow, it should not happen just inadvertently but through conscious planning.

1. First and foremost, the management shall create a HRD cell to monitor all the HRD interventions.
2. While emphasizing development of the organization utmost importance shall be given to human resources. Scientists' aspirations and organizational objectives shall be well integrated for better organizational effectiveness.
3. The management shall draw a comprehensive policy regarding performance appraisal, one of the weakest HRD dimension identified in this study, which is acceptable both to the management and scientists concerned. It shall be conducted regularly to take care of the morale of the scientists.
4. Promotion policy shall be uptodate, maintaining objectivity in assessment. A sound performance appraisal shall be the basis for it.
5. It is urgently needed to evolve a suitable training policy. Monitoring cells need to be established to assess the training needs and to streamline the activities.
6. Major corrective and reformative steps need to be undertaken with respect to manpower planning the weakest HRD dimension identified. A sound MIS should form the basis for manpower planning and forecasting. Manpower planning and forecasting need to be done equitably for each and every department or unit.

7. To motivate the scientists to perform better the reward system should be strengthened. Monetary rewards such as pay and other incentives, non monetary rewards such as appreciation of good work done, providing all physical facilities and moral support to sincere scientists etc., shall be made readily available.
8. Organisation shall be definitely evolving a clear career planning and development policy. Career planning assumes greater significance in view of the increasing demand for developing scientists' capabilities to face the challenges of organisational change consequent upon the globalisation of economic policies.
9. The management shall encourage a culture of openness i.e. scientists feel free to discuss ideas, activities and feelings; helpfulness and teamwork; take initiative and risk etc., which would in turn facilitate HRD interventions.
10. The use of information technology need to be further intensified. Decisions should be communicated in the right time.
11. Management shall reconsider the placement policy and make necessary modifications to make 'good fits' between the individual abilities and the job requirements.
12. Teamwork shall be encouraged. This dimension of HRD is of utmost importance since promoting inter-disciplinary teamwork as a better approach to research issues in agriculture are the need of time.
13. There should be a clear and transparent transfer policy evolved in consensus.

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AN ANALYSIS OF THE HUMAN RESOURCE DEVELOPMENT CLIMATE PREVAILING IN KERALA AGRICULTURAL UNIVERSITY

By

SENTHILKUMAR, R.

ABSTRACT OF A THESIS

Submitted in partial fulfilment of the requirement for the degree

Master of Veterinary Science

Faculty of Veterinary and Animal Sciences
Kerala Agricultural University

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COLLEGE OF VETERINARY AND ANIMAL SCIENCES
MANNUTHY, THRISSUR - 680651
KERALA, INDIA

1999

ABSTRACT

The HRD climate prevailing in the Kerala Agricultural University and as perceived by its scientists was studied. In all, 262 scientists from main, regional and remote stations constituted the sample.

The HRD climate studied was in terms of 12 major constituent dimensions, viz., management philosophy, training, career planning and development, manpower planning and forecasting, performance appraisal communication, team work, transfer, promotion, rewards and organizational culture. It was seen that organizational culture had been identified as the relatively most dominant dimension of HRD climate followed in that order by teamwork, transfer, management philosophy, communication, career planning and development, placement, rewards, performance appraisal, promotion, training, and manpower planning and forecasting. Manpower planning and forecasting being the weakest dimension need immediate intervention.

Besides looking into the strength of various dimensions and components the issue of HRD climate was examined from the angle of the number of scientists perceiving it as favourable, moderately favourable and unfavourable. Considering only the percentage of scientists who perceived the various dimensions to be favourable, the latter were ordered. Accordingly, it was seen that comparatively the highest percentage of scientists perceived the dimension transfer to be favourable followed in that order by teamwork, placement, communication, organizational culture, career planning and development, rewards, manpower planning and forecasting, management philosophy, training, promotion and performance appraisal. Since the percentage of scientists perceiving the HRD dimension, performance appraisal to be favourable was the least, immediate reformative measures are warranted.

It was also seen that there was a differential perception of the HRD climate between certain groups. For instance, men and women scientists perceived the HRD climate differently. The scientists of regional and remote stations perceived the HRD climate differently from those of main stations. Similarly, the perception of HRD climate differed between professors and associate professors and between associate professors and assistant professors (S.G). A more comprehensive study on the nature and cause of such perceptual differences is very essential. This shall be an objective of future research.

APPENDIX

KERALA AGRICULTURAL UNIVERSITY
COLLEGE OF VETERINARY AND ANIMAL SCIENCES
MANNUTHY-680 651

Dr.P.S.Pushkaran
Professor and Head
Department of Extension

&

Director of Extension

Dear Scientists,

Dr.R.Senthilkumar, M.V.Sc.student of this department has taken up a study entitled "An analysis of the Human Resource Development (HRD) climate prevailing in Kerala Agricultural University" as a part of his M.V.Sc. (Extension) Degree Programme. We are happy to inform you that you have been selected as one of the respondents for the study.

We request you to kindly spare some time to go through the questionnaire and express your opinion on the various items frankly. It is sure that your valuable responses would enrich the quality and early completion of the research study. The Questionnaire with instructions on how to fill up is enclosed.

Expecting your wholehearted co-operation.

With regards.

Yours sincerely,

Date: 23-3-1999

(P.S.PUSHKARAN)

AN ANALYSIS OF THE HUMAN RESOURCE DEVELOPMENT CLIMATE PREVAILING IN KERALA AGRICULTURAL UNIVERSITY

QUESTIONNAIRE

Concept

HRD climate is the perceptions the employees can have on the developmental environment of an organization.

Instructions:

1. Please read each statement carefully and record your first reaction to them.

2. Do not leave out any item; incomplete information may lead to inconclusive results.

3. This information is purely for educational research work, therefore your UNBIASED, OBJECTIVE AND HONEST responses are very much essential for its QUALITY and early completion.

* Your responses will be kept strictly confidential and used for research purpose only.

* Please do not write your names anywhere in the Questionnaire to maintain anonymity. Retain the requisition letter and mail back the completed Questionnaire in the addressed, stamped envelope enclosed, at the earliest.

PART I

1. Educational attainment :

   a) Basic qualification :
   b) Additional qualification :

2. Experience : years months

3. Age : years

4. Sex : Male/Female

5. Cadre/Designation (tick mark) : Assistant professor
   Assistant professor (Senior Scale)
   Assistant professor (Selection Grade)
   Associate Professor
   Professor

6. Number of trainings received :

a) National :

b) International :

7. Number of Publications :

a) Research articles :

b) Popular articles :

c) Monographs :

d) Books, booklets and manuals :

e) Others (specify) :

8. Number of projects handled

a) KAU projects :

b) Externally funded :

9. Number of students guided :

a) Postgraduate :

b) Ph.D. :

10. Number of seminars, symposia, conferences, etc. attended :

a) Within India :

b) Outside India :

11. Any other information on your achievements that you would like to give :

Ans:

PART II

Here are some of the statements on the Human Resource Development climate. Please indicate your responses by marking (✓)

Code

AT - Almost always true
MT - Mostly true
ST - Sometimes true
RT - Rarely true
NT - Not at all true

Sl. No.	Statement	AT	MT	ST	RT	NT
1.	The management believes that it is the responsibility of the superior to create a healthy and motivating work climate and to set examples for subordinates to follow.					
2.	Scientists here are receiving only late communication from higher ups.					
3.	Scientists here are provided adequate financial support for higher learning/training.					
4.	Scientists in this organization feel free to discuss their ideas, activities and feelings with each other.					
5.	Unreasonable restrictions are imposed while deputing scientists for higher learning/training.					
6.	The organisation realizes performance appraisal as an important management activity that augments scientists' productivity.					
7.	There are opportunities to take part in scientific seminars, conferences,					

	workshops, etc., and exchange ideas within and without the organization.					
8.	There is enough access to literature like journals, books, and bulletins to update knowledge.					
9.	The management is concerned with making "Promotion within" as far as practicable to ensure better promotion chances for its own scientists.					
10.	Problems and issues are brought into open with a view to solve them rather than hiding them for fear of hurting or getting hurt.					
11.	There is no freedom to work independently with responsibility.					
12.	One cannot take fellow scientists at their face value and believe what they say.					
13.	Genuine personal requests for transfer are duly considered.					
14.	The management believes that a protective psychological climate to work is what is sensible and not a threatening climate.					
15.	The management believes that scientists' commitment can be increased by providing opportunity to discover and use one's capabilities and potential in one's work.					

16.	There is undue resistance from some scientists when organization initiates fair transfer in the interest of organizational effectiveness.					
17.	Communication gadgets like telephone, fax, E-mail, internet, etc., are sufficient for readily exchanging important information with others.					
18.	During team work scientists communicate each other freely and frankly.					
19.	There is a helping relation among scientists during teamwork.					
20.	There is enough opportunity to interact with higher-ups and ventilate grievances.					
21.	Decision from above are passed on to you without distorting them.					
22.	Management considers pay and other incentives as powerful motivators of work.					
23.	Management is committed to provide all practicable physical facilities to a sincere and hard working scientist.					
24.	The organization ensures scientists' promotion in the right time.					
25.	Your organization follows the procedure of "The right man for the right job" for the accomplishment of					

	organizational goals.					
26.	The management realises the importance of team work and supports it.					
27.	Your organization values the human resources first than other physical resources.					
28.	Some scientists of this organization can get transfer as and when required.					
29.	Good work done is rewarded in terms of promotions and lateral transfer to desirable positions.					
30.	Superiors regularly appreciate or praise good work done in appropriate fora.					
31.	The present practice of selection, placement and training of scientists are based on sound forecasting of manpower requirement.					
32.	The management is timely responding to your opinions and suggestions.					
33.	There is enough understanding among the scientists about the work to be shared.					
34.	There is enough encouragement to take initiatives and risk.					
35.	The management believes that the scientists' favourable feeling of organization can be					

	ensured by providing for their basic and higher needs through appropriate management styles.					
36.	Scientists are helpful to each other and are willing to work in teams.					
37.	The organisation has always been concerned with keeping the promotional policies up-to-date.					
38.	Placement is based on work load in any unit or department rather than on the basis of specialization one has got.					
39.	The organization sends its scientists for training as and when need for such an expertise is felt.					
40.	The management believes that scientists' aspirations can be aligned with that of organizational goals for better organizational efficiency.					
41.	This organization is concerned with building up a sound Management Information System (MIS) on the basis of personal history records of each scientist.					
42.	This organisation has been concerned with keeping the procedures and techniques of performance appraisal foolproof and appropriate.					
43.	There is tendency among scientists to disown their roles					

	whenever a task is to be accomplished.					
44.	In this organization scientists do not get unmerited promotion.					
45.	"Second placement" is being practiced in the organization, i.e., if the management feels that a scientist is best suited for a different or new field of research by virtue of qualification, aptitude and past experiences the incumbent is being placed accordingly.					
46.	Delegation of authority to encourage juniors to handle higher responsibilities is quite common in this organization.					
47.	Scientists can very well avail the first opportunity to get trained in a particular field of relevance.					
48.	Manpower planning and forecast of the manpower requirement are being done equitably for each and every department/unit of the organization.					
49.	This organization is concerned with assessing periodically the training needs of the scientists.					
50.	Placement to appropriate position is being done within a reasonable period after the selection of the scientists.					

51.	Some scientists of this organization are frequently transferred causing them great inconvenience.					
52.	This organization is concerned with conducting performance appraisal at regular intervals.					
53.	Transfer is not used as a device to punish an undesirable scientist in this organization.					
54.	The management believes that the scientists have unlimited potential to develop and that their behaviour can be changed at any stage of their life.					
55.	During times of task accomplishment the scientists' attendance is poor.					
56.	Career opportunities are pointed out to juniors by seniors in this organizations.					
57.	This organization realizes that good MIS is essential pre-requisite for making detailed and precise manpower requirement forecast (MIS-Management Information System).					
58.	Scientists are regularly given feedback about their strengths and weaknesses and that way guided in their career.					
59.	This organization is concerned in assessing					

	periodically and in advance the availability of man power resource and its future requirements.					
60.	When seniors delegate authority to juniors, the juniors take it as an opportunity for development.					
61	What training one should undergo is being decided jointly by the scientist and management and not by any one of them alone.					
62.	Manpower planning duly considers both number of trained people and the quality of training while deciding future requirements					

Thank you