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Research Management Ability of the Heads of Research Departments in Gujarat Agricultural University

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ABSTRACT

To make a research organisation more productive, the proper research management practices should be adopted. Therefore, to measure extent and manner of research management ability of scientists who are working as head in Gujarat Agricultural University, the present investigation was undertaken. The results indicated that majority (71.67 per cent) of the heads exhibited medium level of research management ability. It also revealed that the span of control and research experiments to be conducted by heads had negative and highly significant relationship with thier research management ability, while the age, interpersonal communication and departmental/station climate had positive and highly significant relationship with their research management ability.

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INTRODUCTION

Management is a universal process. Management of the organisation has attained paramount importance for the achievement of goals in modern time. The agricultural research management in India is relatively a new area. The head of departments/stations/projects/ schemes of the agricultural university have to perform many research management functions. Thus, to make a research organisation more productive, the proper research management practices should be adopted by the research leaders. However, it is observed that the scientists who are working as the head have neither education nor experience in the field of management before they become head, eventhough, they have to carry the responsibilities of management aspects too. Thus, to measure extent and manner of research management ability of scientists who are working as head in Gujarat Agricultural University the present investigation was undertaken.

MATERIALS AND METHODS

In the present study research management ability of the head has been operationalised as the ability of the head to apply the basic principles of management in running the department/station/project/scheme for agricultural research work. The standard scale to measure research management ability of the heads was developed for the purpose. All the independently working heads of the agricultural research department/station/

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project/scheme of the Gujarat Agricultural University were selected for the study purpose. For measuring research management ability of the selected heads two immediate subordinates of each head were rendomly selected from respective department/stations/ project/scheme. Thus in all 69 research heads and 138 thier subordinates were selected. Two questionaires were prepared for the study, one for the heads and the another for their subordinates. The respective questionnaire to the heads and subordinates were separately mailed to each person. Finally 86.95% responses were received.

$$\text{RMAI} = \frac{\text{Score obtained for the sub-component} \times \text{Weightage of the sub-component} \times \text{Scale value of main component}}{\text{Maximum score for the sub-component} \times \text{Weightage of the sub-component} \times \text{Scale value of main component}}$$

Measurement of dependent variable (RMAI)

To measure the research management ability of the research heads, the research management ability scale was applied to the two immediate subordinates of each head and RMAI from both the subordinates were calculated. The final RMAI of the head was determined by averaging the RMAI get from both the subordinates of respective head. Coefficient of correlation were computed to findout the relationship between each of the independent variable and dependent variable.

RESULTS AND DISCUSSION

Level of research management ability of heads

The data in Table 1 revealed that majority (71.67 per cent) of the respondents exhibited medium level of research management ability. Almost equal number of respondents were in low (15.00 per cent) and high (13.33 per cent) level of ability group.

It can be concluded that the majority (71.67 per cent) of the heads had medium level of research management ability. This might be due to the similar pattern of working situations in which they are working.

TABLE 1

Distribution of heads according to their research management ability index.

N = 60

Sr. No.	*Category*	*Index range*	*Freqyency*	*Per cent*
1.	Low	Upto 55.73	9	15.00
2.	Medium	55.74 to 87.89	43	71.67
3.	High	Above 87.89	8	13.33

1. Relationship of research management ability of the heads with their selected characteristics

a. Personal characteristics

The five personal variables viz., age, academic qualification, family size, belonging state and health were studied in relation to research management ability index (RMAI) of the heads. The data are reported in Table 2.

TABLE 2

Correlation coefficient between personal characteristics of heads and their RMAI.

N = 60

Sr. No.	*Name of variable*	*'r' value*
1.	Age	0.2744*
2.	Academic qualification	-0.0070 NS
3.	Family size	-0.0331 NS
4.	Belonging State	0.0650 NS
5.	Health	-0.1950 NS

NS = Non Significant at 0.05 level.
* = Significant at 0.05 level.

The data presented in Table 2 revealed that age had positive and significant relationship with RMAI of the heads. it implies that as age increases the RMAI increases. It means older heads seemed to be better than the younger. This might be because of the tendency that the aged head would be more balanced and tactful than the younger ones. This finding was in confirmity with those of Nair (1974), Nikhode and Kitey (1984), Kherde and Sahay (1972) and Sharma *et al.* (1988).

Academic qualification, Family size and Health had negative but non significant relationship with RMAI of the heads. These findings were in confirmity with the findings of G. Rani (1985).

Regarding belonging State (i.e. Gujarat and other than Gujarat) had non-significant relationship with RMAI of the heads.

B. Organisational characteristics

Eight organizational variables i.e. (1) on campus/off campus situation (2) Span of control (3) research experiments to be conducted (4) interpersonal communications (5) departmental/station climate (6) staff facility (7) grant facility for research material and (8) office/research facility were studied in relation to RMAI. Data regarding the same are presented in Table 3.

TABLE 3

Correlation coefficient between organizational characteristics of heads and their RMAI.

Sr. No.	*Name of variable*	*'r' value*
1.	Off campus situation	-0.1810 NS
2.	Span of control	-0.3275**
3.	Research experiments to be conducted	-0.3850**
4.	Interpersonal communication	0.4676**
5.	Departmental/station climate	0.3884 **
6.	Staff facility	0.0368 NS
7.	Grant facility for research material	-0.0910 NS
8.	Office/research facility	-0.0853 NS

NS = Nonsignificant at 0.05 level.
** Significant at 0.01 level.

Among all organizational characteristics, span of control and research experiments to be conducted had negative significant relationship with RMAI of heads. This might be

due to the fact that, it is easy to control/ coordinate the smaller group as compared to the bigger group, and more number of experiments increase the work load of the head, which directly affects on management. While interpersonal communication and departmental/station climate had positive significant relationship with RMAI of the heads. It implies that more the interpersonal communication higher will be the RMAI and the heads who perceived the climate of department/station as healtheir had also higher RMAI.

This may be because interpersonal communication would promote the spread of ideas/instructions among the subordinates and other which would help heads to perform better management. The congenial climate for research activities as well as good cooperation and coordination at all the levels also might be resulted in higher RMAI.

This findings were in line with findings of Murthy and Somasundram (1989), Laharia (1978) and Reddy and Jayaramaiah (1990).

It is also seen in Table 3 that off campus situation, staff facility, grant facility for research material and office/research facility had non significant relationship with RMAI of the heads.

Implication

Present investigation revealed that the majority of the heads were in the medium level of research menagement ability, and therefore, it is implied that there is urgent need to improve the research management ability of the heads, the efforts should be concentrated to strengthen the training facilities of management aspects. increasing the grant facility for research material and reducing the unproductive work load.

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