



## Factors affecting the job satisfaction of agricultural scientists of State Agricultural Universities

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### ABSTRACT

The effectiveness and productivity of the system and academic community can be enhanced when there is a job satisfaction of the agricultural scientists working in the State Agricultural Universities would be properly examined. A study was conducted with 300 agricultural scientists selected from the three agricultural universities, viz. PAU, GBPUAT and HAU by using a structured questionnaire. The data were tabulated and analysed with the help of appropriate statistical tools by using Statistical Package for Social Sciences (SPSS). In PAU, that the motivator and hygiene factors collectively contributed 35.7% and after stepwise regression the contributing factor became 34.4% ( $R^2=0.344$ ) which explained that the difference between all factors and the remaining factors was only 1.3%. The data of GBPUAT revealed that the motivator and hygiene factors responsible for the job satisfaction of agricultural scientists initially contributed 35.5% ( $R^2=0.355$ ) but after stepwise regression, 31.3% ( $R^2=0.313$ ) was observed. Motivation and hygiene factors in HAU contributed 66.3% in job satisfaction while after applying stepwise regression the remaining factors contribute 66% which was not varying widely with the original ten factors. The motivator and hygiene factors in all the three universities-PAU, GBPUAT and HAU initially presented 35.7% ( $R^2=0.357$ ) contribution to job satisfaction but after applying stepwise regression much difference was not seen, i.e. 35.4% ( $R^2=0.354$ ). Concerted efforts have to be made by the policy makers, administrators and academicians concerned to make necessary improvements in the University service whereby the scientists can more productively contribute for the development of nation through producing quality technical manpower.

**Key words:** Agricultural Scientists, Job satisfaction, Motivation, State Agricultural Universities

Job satisfaction is a qualitative aspect and cannot be understood in strict quantitative terms. It is an intangible and psychological concept. The job satisfaction of agricultural scientist is the most important factor for improving work productivity in agricultural universities. If effectiveness and productivity of the system and academic community are to be enhanced, then it is important to examine what factors influence the job satisfaction of the agricultural scientists working in the State Agricultural Universities. The review of literature provided a piecemeal account of various dimensions of job satisfaction of agricultural scientists. In spite of various studies complete focus on the subject of job satisfaction and its related variables on agricultural scientists in Agricultural Universities, some of them remain untouched. Therefore, the present study takes into account all the variables (intrinsic/motivator and extrinsic/hygiene), viz. job contents, superior's

behaviour, co-worker's behaviour, students' behaviour, growth opportunities, pay and promotion pattern etc as well as demographic factors to study the job satisfaction of university agricultural scientists. In the present study an attempt had also been made to find the relationship between the aforesaid variables and job satisfaction and to identify which of these variables account for maximum variance in the job satisfaction of the agricultural scientists.

Eventhough the effects are modest the fact that job satisfaction contributes to decreasing the level of employee absenteeism remains. So, satisfaction is worth paying attention, unlike some of the other causes of absenteeism (e.g. illness, accidents). But circumstances can alter this equation. As a manager person could be implicitly encouraging absenteeism by enforcing company policies. If people are paid for sick days, and if they must be "used or lost" this is pretty strong encouragement for employees to be absent. In other words, people have helped create a culture of absenteeism that can overcome the "satisfaction" effect (Sweney and McFarlin 2005). When satisfaction is high, absenteeism tends to be low; when satisfaction is low,

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absenteeism tends to be high.

In Herzberg's theory (1957), Herzberg suggested that job satisfaction and job dissatisfaction are caused by different and independent sets of factors. Herzberg (1959) found that when people are satisfied, they attribute their satisfaction to the work itself, while when people are dissatisfied with their job; they are concerned about the environment in which they work. Therefore, job satisfaction is caused by a set of factors related to the work itself, such as nature of job, achievement in the work, possibilities of personal growth and recognition and promotion opportunities. These factors are called motivators as they should motivate to higher performance. On the other hand, job dissatisfaction is a result of conditions that surround doing the job, such as (physical) working conditions, salary, company policies, job security, quality of supervision and relation with others. These factors are known as hygiene (or maintenance) factors. These are intrinsic part of job but they refer to the environment and have the function of preventing job dissatisfaction. The hygiene factors must be continually maintained by the management because they are never completely satisfied. So, keeping these factors in mind, it has been studied to understand the influence of these factors on the job satisfaction of the agricultural scientists.

#### MATERIALS AND METHODS

The study was conducted in three purposively selected State Agricultural Universities of Northern Region in India, viz. Punjab Agricultural University, Ludhiana, Govind Ballabh Pant University of Agriculture & Technology, Pantnagar and Choudhary Charan Singh Haryana Agricultural University, Hisar, Haryana due to their easy accessibility to the investigator and award winning state agricultural universities. One hundred agricultural scientists who had minimum five years experience were randomly selected from

each university by allocating the number of agricultural scientists in teaching, research and extension proportionally. Further for selecting the scientists from Professors, Associate Professors and Assistant Professors, proportional allocation method was used in each cadre. The total sample comprised of 300 agricultural scientists. A structured questionnaire was prepared for collecting the relevant data. It contained close ended as well as open ended items/questions regarding job satisfaction of agricultural scientists and factors affecting job satisfaction. The data were tabulated and analysed with the help of appropriate statistical tools by using Statistical Package for Social Sciences (SPSS).

#### RESULTS AND DISCUSSION

In case of PAU it could be observed from Table 1 that the motivator and hygiene factors collectively contributed 35.7% and after stepwise regression the contributing factor became 34.4% ( $R^2=0.344$ ) which explained that the difference between all factors and the remaining factors was only 1.3%. It was apparent from the regression analysis that only 4 factors were significant ( $P<0.05$ ) among Herzberg's motivator and hygiene factors and those were opportunity of achievement, recognition and rewards, work itself and supervisory support and out of these with increment of supervisory support, job satisfaction decreases which might be due to much interference in the job of the respondents of PAU.

$$Y = a + b_1X_1 + b_3X_3 + b_5X_5 + b_{10}X_{10}$$

$$Y = 3.466 + 1.960 X_1 + 2.815 X_3 + 4.224X_5 + -2.452 X_{10}$$

A perusal of the data presented in Table 2 shows that the motivator and hygiene factors responsible for the job satisfaction of agricultural scientists initially contributed 35.5% ( $R^2=0.355$ ) but after stepwise regression, 31.3%

Table 1 Factors affecting job satisfaction of agricultural scientists in PAU through stepwise regression

Variables	First run equation		Second run equation	
	Regression coefficient	t-value	Regression coefficient	t-value
Constant	53.025	2.895**	55.830	3.466**
Opportunity of achievement	0.942	1.745	0.973	1.960*
Opportunity of initiative	-0.070	-0.392		
Recognition and rewards	0.736	2.759**	0.610	2.815**
Sense of responsibility	1.816	2.024*	1.529	
Work itself	0.898	3.051**	0.951	4.224**
Salary and fringe benefits	-0.072	-0.394		
Organizational clarity	-0.041	-0.170		
Job security and advancement	-0.180	-0.418*		
Social status attached to the job	0.468	1.017		
Supervisory support	-0.406	-2.235*	-0.397	-2.452*
R <sup>2</sup>		0.357		0.344

\*Significant at 5% level of significance, \*\*significant at 1% level of significance

Table 2 Factors affecting job satisfaction of agricultural scientists in GBPUAT through stepwise regression

Variables	First run equation		Second run equation	
	Regression coefficient	t-value	Regression coefficient	t-value
Constant	29.441	1.778	46.358	3.628**
Opportunity of achievement	2.827	4.248**	2.307	4.457**
Opportunity of initiative	-0.532	-1.612		
Recognition and rewards	0.316	0.933		
Sense of responsibility	0.606	1.245		
Work itself	0.668	2.379**	0.480	2.133*
Salary and fringe benefits	0.116	0.595		
Organizational clarity	-0.252	-1.261	-0.295	
Job security and advancement	-0.234	-0.762		
Social status attached to the job	1.413	3.132**	1.335	3.202**
Supervisory support				
R <sup>2</sup>	0.355		0.313	

\*Significant at 5% level of significance, \*\*significant at 1% level of significance

(R<sup>2</sup>=0.313) was observed. In case of GBPUAT, the significant factors among those were opportunity of achievement, work itself and social status attached to the job.

$$Y = a + b_1X_1 + b_5X_5 + b_9X_9$$

$$Y = 3.628 + 4.457 X_1 + 2.133 X_5 + 3.202 X_9$$

A close look at the data given in Table 3 reveals that Herzberg's motivation and hygiene factors in HAU contributed 66.3% in job satisfaction while after applying stepwise regression the remaining factors contribute 66% which was not varying widely with the original ten factors. So, it can be concluded that Herzberg's factors were affecting the job satisfaction of agricultural scientists in HAU. The contributing factors were opportunity of achievement, sense of responsibility, work itself and social status attached to the job while the factors which showed inverse relationship with

the job satisfaction were opportunity of initiative, salary and fringe benefits and organizational clarity.

$$Y = a + b_1X_1 + b_2X_2 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_9X_9$$

$$Y = 2.639 + 5.561 X_1 + -3.644 X_2 + 2.221 X_4 + 3.999 X_5 + -3.977X_6 + -3.561X_7 + 10.275 X_9$$

A cursory glance of the Table 4 indicates that the motivator and hygiene factors in all the three universities-PAU, GBPUAT and HAU initially presented 35.7% (R<sup>2</sup> = 0.357) contribution to job satisfaction but after applying stepwise regression much difference was not seen, i e 35.4% (R<sup>2</sup> = 0.354). So, it can be concluded from the data that the factors which remained after regression almost had same influence on job satisfaction of agricultural scientists as in consideration of all the motivator and hygiene factors. Bowen (1980) found that advancement was the only satisfier factor

Table 3 Factors affecting job satisfaction of agricultural scientists in HAU through stepwise regression

Variables	First run equation		Second run equation	
	Regression coefficient	t-value	Regression coefficient	t-value
Constant	35.184	2.276*	38.938	2.639**
Opportunity of achievement	2.433	4.633**	2.644	5.561**
Opportunity of initiative	-0.801	-3.700**	-0.762	-3.644**
Recognition and rewards	-0.497	-1.553	-0.589	
Sense of responsibility	1.509	2.413**	1.301	2.221**
Work itself	1.016	3.964**	0.985	3.999**
Salary and fringe benefits	-0.608	-2.373**	-0.772	-3.977**
Organizational clarity	-0.772	-3.169**	-0.790	-3.561**
Job security and advancement	-0.323	-0.951		
Social status attached to the job	4.305	10.224**	4.257	10.275**
Supervisory support	0.083	0.512		
R <sup>2</sup>	0.663		0.66	

\*Significant at 5% level of significance, \*\* significant at 1% level of significance

Table 4 Factors affecting job satisfaction of agricultural scientists in PAU, GBPUAT and HAU through stepwise regression

Variables	First run equation		Second run equation	
	Regression coefficient	t-value	Regression coefficient	t-value
Constant	45.617	5.279**	44.427	5.199**
Opportunity of achievement	1.833	5.986**	1.778	5.983**
Opportunity of initiative	-0.291	-2.306**	-0.270	-2.169**
Recognition and rewards	0.357	2.225**	0.363	2.269**
Sense of responsibility	0.896	2.600**	0.872	2.538**
Work itself	0.560	3.860	0.543	3.831**
Salary and fringe benefits	-0.019	-0.175		
Organizational clarity	-0.180	-1.465	-0.214	
Job security and advancement	-0.179	-0.941		
Social status attached to the job	1.583	6.575**	1.522	6.707**
Supervisory support	-0.180	-1.780	-0.201	-2.057**
R <sup>2</sup>		0.357		0.354

\*Significant at 5% level of significance, \*\*significant at 1% level of significance

that explained a significant amount of variance in the job satisfaction of agricultural education faculty ( $R^2=0.23$ ) and in hygiene factors policy and administration was the only factor that explained a significant amount of variance in the job satisfaction of agricultural education faculty ( $R^2 = 0.35$ ).

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_9X_9 + b_{10}X_{10}$$

$$Y = 5.199 + 5.983 X_1 + -2.169 X_2 + 2.269 X_3 + 2.538 X_4 + 3.831 X_5 + 6.707 X_9 + -2.057 X_{10}$$

### CONCLUSION

The issue of job satisfaction, motivation in the workplace and the role of job characteristics has been the cause of intensive research for many years now and has given rise to many theories, formed on the basis of extended research by psychologists, social scientists and human resource development managers. The concept of job satisfaction, though of considerably recent origin, is closely linked to motivation in the workplace and is a causal factor in improved performance at the workplace. These issues are again linked to job characteristics, which primarily describe the inherent features of a job, which can again motivate or demotivate workers, and whose tweaking can thus change the inherent motivational features of the job.

Job satisfaction represents one of the most complex areas facing today's scientists when it comes to managing their researches. Many studies have demonstrated an unusually large impact on the job satisfaction on the motivation of workers, while the level of motivation has an impact on productivity, and hence also on performance of various universities and institutions. Unfortunately, in the universities/institutions, job satisfaction has not still received the proper attention which needs to be focused.

### *Suggestions for improving the job satisfaction of scientists in state agricultural universities*

- The instrument developed as a part of this present study resulted in a potential useful tool for measuring the factors that discriminate between satisfiers and dissatisfiers, high job performers and low job performers. Hence, the scale/instrument developed can be further used to study the job satisfaction of Agricultural Scientists of the universities other than taken universities through refinement of items.
- The output of this investigation can also be used to conduct longitudinal research to determine how the level of job satisfaction for agricultural scientists compares with scientists of other than selected universities scientists over a period of time. Hence, concerted efforts have to be made by the policy makers, administrators and academicians concerned to make necessary improvements in the University service whereby the scientists can more productively contribute for the development of nation through producing quality technical manpower.

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