



Job satisfaction of agricultural scientists of selected state Agricultural Universities and its relationship with their socio-personal characteristics

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ABSTRACT

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 in the agricultural universities. If the scientists of agricultural universities are not satisfied with their profession, they will not be able to increase their performance and thus will not contribute to their three fold function of teaching, research and extension which they have to perform. The sample size of the present study comprised of 300 agricultural scientists selected from the three agricultural universities viz., PAU, GBPUAT and HAU. A structured questionnaire was prepared for collecting the relevant data. The data were tabulated and analysed with the help of appropriate statistical tools by using Statistical Package for Social Sciences (SPSS). It was found that GBPUAT was significantly different from PAU and HAU at 1 per cent level of significance in many factors affecting the job satisfaction of agricultural scientists in totality. Opportunity for professional growth and comforts of physical working conditions (place of work, transportation, light etc.) at 1 per cent level of significance and feeling of accomplishment at 5 per cent level of significance showed significant difference between PAU and GBPUAT whereas in some factors of job satisfaction, GBPUAT and HAU were significantly different at 5 per cent confidence level. Assistant Professors, Associate Professors and Professors showed insignificant difference with respect to job satisfaction in all the three agricultural universities. In HAU, there was negative and significant correlation between the job satisfaction and distance (kms) of respondents from their permanent home. In GBPUAT, the job satisfaction varied in nuclear and joint families and a significant difference ($p < 0.01$) was found among the families residing with respondents and not residing with the respondents in respect to job satisfaction.

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INTRODUCTION

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 scientists is the most important factor in agricultural universities. If effectiveness and productivity of the system and academic community are to be enhanced, then we must examine what factors influence the job satisfaction of the agricultural scientists working in the State Agricultural Universities.

As teaching does require a great deal of thoroughness and commitment, so in teaching it is more important to have mental commitment and loyalty than physical presence (Akhter *et al.*, 2008). But if the scientists of agricultural

universities are not satisfied with their profession, they will not be able to increase their performance and thus will not contribute to their three fold function of teaching, research and extension which they have to perform. Therefore, the focus of the present study was to reveal the level of job satisfaction of scientists in agricultural universities. The present investigation was conducted with the objectives to determine the job satisfaction of the agricultural scientists, factors affecting their job satisfaction and the relationship of their socio-personal characteristics with job satisfaction.

METHODOLOGY

The present study was conducted in three

Key words : Job satisfaction, Agricultural scientists, Socio-personal Characteristics

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purposely selected State Agricultural Universities of Northern region in India *viz.*, Punjab Agricultural University, Ludhiana, Govind Ballabh Pant University of Agriculture and Technology, Pantnagar and Chaudhary Charan Singh Haryana Agricultural University, Hisar, Haryana due to their easy accessibility to the investigators. 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 selected from the three agricultural universities. 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 ANALYSIS

The results of the present study alongwith relevant discussion have been presented as under:

The data presented in Table 1 indicate the extent of importance of different determinants in job satisfaction and also reveals that agricultural scientists of PAU, GBPUAT and HAU were highly satisfied with their job and respective positions which are similar to the results of study conducted by Cowie *et al.* (1989). They found that agriculture and forestry faculty at West Virginia University were very satisfied with their positions. It can be further noticed from Table 1 that out of thirty determinants of job satisfaction, 17 determinants were non-significant which means that these determinants did not differ as far as the level of job satisfaction score means was concerned in the three selected agricultural universities. Those determinants were self esteem or respect from the colleagues, prestige of job outside the department, opportunity for promotion, opportunity of job outside department, pay for job, amount of close supervision, opportunity for close friendship, feeling of job security, opportunity to get to know others, liking for the nature of the work, variety of the job, technical facilities to do the job, opportunity for independent thought, opportunity to participate in decision making, opportunity for feedback on performance, use of the talents and feel when do job well and this might have happened due to the

basic components of job satisfaction required by the agricultural scientists of PAU, GBPUAT and HAU. Among these thirty determinants, five determinants were significant at 5 per cent level of significance which explained that these determinants differed significantly with respect to job satisfaction score means among the three universities and these determinants were feeling of accomplishment (4.53_{PAU}, 4.32_{GBPUAT}, 4.44_{HAU}), opportunity to do challenging job (4.24_{PAU}, 4.14_{GBPUAT}, 4.40_{HAU}), freedom on job (4.43_{PAU}, 4.25_{GBPUAT}, 4.48_{HAU}), help from the administration in doing job (4.38_{PAU}, 4.20_{GBPUAT}, 4.45_{HAU}) and fairness of authority (4.52_{PAU}, 4.43_{GBPUAT}, 4.66_{HAU}) which revealed that the respondents of HAU among the respondents of the three universities were comparatively more satisfied with the above mentioned factors. This could be due to the favourable and conducive environments in respective of job satisfaction determinants. It was further noticed from the data given in Table 1 that among all job determinants, eight determinants significantly differed in PAU, GBPUAT and HAU at 1 per cent level of significance in respect of job satisfaction mean scores. These determinants included prestige of job inside the department (4.52_{PAU}, 4.35_{GBPUAT}, 4.69_{HAU}), opportunity for professional growth (4.76_{PAU}, 4.52_{GBPUAT}, 4.63_{HAU}), opportunity to help others (4.37_{PAU}, 4.11_{GBPUAT}, 4.44_{HAU}), opportunity to complete work (4.61_{PAU}, 4.27_{GBPUAT}, 4.56_{HAU}), chance to do a whole piece of work (4.27_{PAU}, 3.98_{GBPUAT}, 4.24_{HAU}), opportunity to do many things (3.92_{PAU}, 3.73_{GBPUAT}, 4.21_{HAU}), comforts of physical working conditions *i.e.* place of work, transportation, light etc. (4.57_{PAU}, 4.23_{GBPUAT}, 4.51_{HAU}) and the fringe benefits *i.e.* housing, medical, provident fund etc. (4.47_{PAU}, 4.26_{GBPUAT}, 4.52_{HAU}). But when summarized, the determinants of job satisfaction score means varied significantly (131.59_{PAU}, 127.33_{GBPUAT}, 132.04_{HAU}) between the three agricultural universities.

It can be observed from the data presented in Table 2 that all the significant components found in the Table 1 showed non-significant difference between HAU and PAU while in consideration of many components of job satisfaction mean scores of GBPUAT were significantly different from PAU and HAU at 1 per cent level of significance by computing the critical differences. Those components were opportunity to help others (4.37_{PAU}, 4.11_{GBPUAT}, 4.44_{HAU}), opportunity to complete work (4.61_{PAU}, 4.27_{GBPUAT}, 4.56_{HAU}), chance to do a whole piece of work (4.27_{PAU}, 3.98_{GBPUAT}, 4.24_{HAU}), the fringe benefits (4.47_{PAU}, 4.26_{GBPUAT}, 4.52_{HAU}) and overall (131.59_{PAU}, 127.33_{GBPUAT}, 132.04_{HAU}). With regard to mean scores of job satisfaction in PAU and GBPUAT,

Table 1 : Analysis of variance of determinants of job satisfaction across the three agricultural universities

Sr. No.	Determinants of job satisfaction	PAU		GBPUAT		HAU		F-ratio
		Mean	SD	Mean	SD	Mean	SD	
1.	Self esteem or respect from your colleagues	4.64	0.59	4.57	0.61	4.70	0.58	1.20
2.	Prestige of job inside department	4.52	0.59	4.35	0.52	4.69	0.46	10.33**
3.	Prestige of job outside department	4.49	0.50	4.42	0.54	4.46	0.82	0.31
4.	Opportunity for professional growth	4.76	0.43	4.52	0.58	4.63	0.49	5.75**
5.	Opportunity for promotion	4.58	0.54	4.49	0.61	4.62	0.49	1.48
6.	Opportunity of job outside department	4.12	0.76	3.96	0.91	4.10	0.87	1.06
7.	Pay for job	4.51	0.50	4.41	0.53	4.54	0.56	1.64
8.	Amount of close supervision	3.94	0.75	3.78	0.86	3.94	0.63	1.51
9.	Opportunity for close friendship	3.75	1.02	3.76	0.73	3.79	1.00	0.05
10.	Opportunity to help others	4.37	0.56	4.11	0.62	4.44	0.56	9.00**
11.	Feeling of job security	4.59	0.53	4.45	0.64	4.60	0.49	2.25
12.	Opportunity to complete work	4.61	0.49	4.27	0.63	4.56	0.50	11.36**
13.	Feeling of accomplishment	4.53	0.58	4.32	0.51	4.44	0.66	3.25*
14.	Chance to do a whole piece of work	4.27	0.63	3.98	0.85	4.24	0.65	4.91**
15.	Opportunity to get to know others	4.13	0.61	4.09	0.79	4.14	0.64	0.15
16.	Opportunity to do challenging job	4.24	0.70	4.14	0.67	4.40	0.65	3.80*
17.	Opportunity to do many things	3.92	0.80	3.73	0.92	4.21	0.67	9.06**
18.	Liking for the nature of the work	4.45	0.54	4.31	0.68	4.35	0.76	1.18
19.	Variety of the job	4.14	0.62	3.95	0.81	4.04	0.88	1.50
20.	Comforts of physical working conditions (place of work, transportation, light etc.)	4.57	0.57	4.23	0.62	4.51	0.73	7.94**
21.	The fringe benefits (housing, medical, provident fund etc.)	4.47	0.58	4.26	0.60	4.52	0.69	4.91**
22.	Technical facilities to do the job	4.53	0.58	4.37	0.60	4.45	0.66	1.71
23.	Opportunity for independent thought	4.54	0.56	4.40	0.67	4.54	0.70	1.57
24.	Freedom on job	4.43	0.67	4.25	0.69	4.48	0.70	3.10*
25.	Opportunity to participate in decision making	4.41	0.73	4.38	0.69	4.47	0.66	0.44
26.	Opportunity for feedback on performance	4.33	0.93	4.30	0.73	4.29	0.87	0.06
27.	Use of your talents	4.51	0.75	4.54	0.61	4.55	0.70	0.09
28.	Feel when do job well	4.34	0.82	4.36	0.48	4.23	0.81	0.94
29.	Help from the administration in doing job	4.38	0.69	4.20	0.70	4.45	0.66	3.57*
30.	Fairness of authority	4.52	0.70	4.43	0.57	4.66	0.67	3.17*
31.	Overall	131.59	17.89	127.33	18.34	132.04	19.29	6.85**

* and ** indicate significance of values at P=0.05 and 0.01, respectively

the opportunity for professional growth (4.76_{PAU}, 4.52_{GBPUAT}) and comforts of physical working conditions *i.e.* place of work, transportation, light etc. (4.57_{PAU}, 4.23_{GBPUAT}) showed differences at 1 per cent level of significance and feeling of accomplishment (4.53_{PAU}, 4.32_{GBPUAT}) differed at 5 per cent level of significance. On the other hand, in GBPUAT and HAU, the components like prestige of job inside the department (4.35_{GBPUAT}, 4.69_{HAU}), opportunity to do many things (3.73_{GBPUAT}, 4.21_{HAU}) and freedom on job (4.25_{GBPUAT}, 4.48_{HAU}) significantly differed at 1 per cent level and the components like opportunity to do challenging job

(4.14_{GBPUAT}, 4.40_{HAU}), help from the administration in doing job (4.20_{GBPUAT}, 4.45_{HAU}) and fairness of authority (4.43_{GBPUAT}, 4.66_{HAU}) significantly differed in their job satisfaction mean scores at 5 per cent confidence level.

Over the past several decades, a number of empirical studies have demonstrated that job-satisfaction levels vary widely in the State Agricultural Universities. The effect of age, tenure, salary, job type, job level and work environment on agricultural scientists' job satisfaction has been extensively discussed. Studies had underscored the importance of identifying the determinants of agricultural scientists' job satisfaction by linking it to higher production

Table 2 : Mean differences of significant determinants of job satisfaction across the three agricultural universities

Sr. No.	Determinants of job satisfaction	Universities	Mean	SD	F-ratio	CD	Mean differences in universities with respect to determinants of job satisfaction
1.	Prestige of job inside department	PAU	4.52	0.59	10.33**	0.21	MD _{PAU-GBPUAT} = 0.17
		GBPUAT	4.35	0.52			MD _{GBPUAT-HAU} = 0.34**
		HAU	4.69	0.46			MD _{HAU-PAU} = 0.17
2.	Opportunity for professional growth	PAU	4.76	0.43	5.75**	0.41	MD _{PAU-GBPUAT} = 0.24**
		GBPUAT	4.52	0.58			MD _{GBPUAT-HAU} = 0.11
		HAU	4.63	0.49			MD _{HAU-PAU} = 0.13
3.	Opportunity to help others	PAU	4.37	0.56	9.00**	0.23	MD _{PAU-GBPUAT} = 0.26**
		GBPUAT	4.11	0.62			MD _{GBPUAT-HAU} = 0.33**
		HAU	4.44	0.56			MD _{HAU-PAU} = 0.07
4.	Opportunity to complete work	PAU	4.61	0.49	11.36**	0.21	MD _{PAU-GBPUAT} = 0.34**
		GBPUAT	4.27	0.63			MD _{GBPUAT-HAU} = 0.29**
		HAU	4.56	0.50			MD _{HAU-PAU} = 0.05
5.	Feeling of accomplishment	PAU	4.53	0.58	3.25*	0.16	MD _{PAU-GBPUAT} = 0.21*
		GBPUAT	4.32	0.51			MD _{GBPUAT-HAU} = 0.12
		HAU	4.44	0.66			MD _{HAU-PAU} = 0.09
6.	Chance to do a whole piece of work	PAU	4.27	0.63	4.91**	0.22	MD _{PAU-GBPUAT} = 0.29**
		GBPUAT	3.98	0.85			MD _{GBPUAT-HAU} = 0.26**
		HAU	4.24	0.65			MD _{HAU-PAU} = 0.03
7.	Opportunity to do challenging job	PAU	4.24	0.70	3.80*	0.19	MD _{PAU-GBPUAT} = 0.10
		GBPUAT	4.14	0.67			MD _{GBPUAT-HAU} = 0.26*
		HAU	4.40	0.65			MD _{HAU-PAU} = 0.16
8.	Opportunity to do many things	PAU	3.92	0.80	9.06**	0.31	MD _{PAU-GBPUAT} = 0.19
		GBPUAT	3.73	0.92			MD _{GBPUAT-HAU} = 1.48**
		HAU	4.21	0.67			MD _{HAU-PAU} = 0.29
9.	Comforts of physical working conditions (Place of work, transportation, light etc.)	PAU	4.57	0.57	7.94**	0.24	MD _{PAU-GBPUAT} = 0.34**
		GBPUAT	4.23	0.62			MD _{GBPUAT-HAU} = 0.28
		HAU	4.51	0.73			MD _{HAU-PAU} = 0.06
10.	The fringe benefits (housing, medical, provident fund etc.)	PAU	4.47	0.58	4.91**	0.20	MD _{PAU-GBPUAT} = 0.21**
		GBPUAT	4.26	0.60			MD _{GBPUAT-HAU} = 0.26**
		HAU	4.52	0.69			MD _{HAU-PAU} = 0.05
11.	Freedom on job	PAU	4.43	0.67	3.10*	0.21	MD _{PAU-GBPUAT} = 0.18
		GBPUAT	4.25	0.69			MD _{GBPUAT-HAU} = 0.23*
		HAU	4.48	0.70			MD _{HAU-PAU} = 0.05
12.	Help from the administration In doing job	PAU	4.38	0.69	3.57*	0.22	MD _{PAU-GBPUAT} = 0.18
		GBPUAT	4.20	0.70			MD _{GBPUAT-HAU} = 1.25*
		HAU	4.45	0.66			MD _{HAU-PAU} = 1.07
13.	Fairness of authority	PAU	4.52	0.70	3.17*	0.18	MD _{PAU-GBPUAT} = 0.09
		GBPUAT	4.43	0.57			MD _{GBPUAT-HAU} = 0.23*
		HAU	4.66	0.67			MD _{HAU-PAU} = 0.14
	Overall	PAU	131.59	17.89	6.85**	0.97	MD _{PAU-GBPUAT} = 4.26**
		GBPUAT	127.33	18.34			MD _{GBPUAT-HAU} = 4.71**
		HAU	132.04	19.29			MD _{HAU-PAU} = 0.45

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Table 3 : Relationship of personal and job related factors of the respondents with job satisfaction

Sr. No.	Personal and job related factors		Job satisfaction r-value		
			PAU	GBPUAT	HAU
1.	Age (years)	25 to 35	-0.031	-0.169	-0.023
		35 to 45			
		> 45			
2.	Distance (kms)	Upto 50	0.041	-0.173	-0.205*
		50 to 150			
		150 to 250			
		Above 250			
3.	Service experience (years)	Upto 5	0.050	-0.080	0.015
		5 to 10			
		10 to 15			
		Above 15			
4.	Family income (Rs.)	Low (25,000-75,000)	-0.079	-0.051	-0.021
		Medium (75,000-1,25,000)			
		High (1,25,000-1,75,000)			

* and ** indicate significance of values at P=0.05 and 0.01, respectively

Table 4 : Differences in personal and job related factors of respondents with respect to job satisfaction

Sr. No.	Personal and job related factors		Job satisfaction t-value		
			PAU	GBPUAT	HAU
1.	Gender	Male	0.74	1.68	1.65
		Female			
2.	Background	Rural	0.82	1.93	1.44
		Urban			
3.	Type of family	Nuclear	1.64	3.13**	0.25
		Joint			
4.	Respondents residing with family	Yes	1.32	3.02*	0.41
		No			
5.	Designation	Assistant Prof.	PAU	GBPUAT	HAU
		Associate Prof.			
		Professor	0.87	0.91	1.19

* and ** indicate significance of values at P=0.05 and 0.01, respectively

and performance levels and to retention rates.

It can be envisaged from the data given in Table 3 that in all the three agricultural universities -PAU, GBPUAT and HAU, the correlation between the job satisfaction and age of the respondents was negative and non-significant which showed that there was no relationship between age and job satisfaction. In parallel to present study, Brown, Hohenshil and Brown (1998) had not found a significant relationship between age and job satisfaction, although the age of the respondents in the survey tended to be younger.

There was no correlation between the job satisfaction and distance (kms) of respondents from their permanent

home in PAU and GBPUAT but in case of HAU, there was negative and significant correlation between the job satisfaction and distance (kms) of respondents from their permanent home which explained that less the distance, more the job satisfaction of the respondents.

Lewis (1982) found that teachers who had continuous experience in the current school were more satisfied than others. But the findings of the present study revealed positive and non-significant correlation between job satisfaction and service experience in PAU and HAU. On the other hand, in GBPUAT, it can be noticed from the data given in Table 3 that there was negative and non-significant correlation between the job satisfaction

and service experience. This was contrary to the results of previous study conducted by Titus and Hickson, 2003 of United Kingdom, who reported that the results of increase in age and experience decreased the satisfaction. Further, negative and non-significant correlation between job satisfaction and family income of the respondents was noticed in all the three state agricultural universities.

A close examination of the data given in Table 4 indicated that in PAU, GBPUAT and HAU, there was no significant difference between males and females with respect to their job satisfaction. On the contrary, of the findings the study conducted by Smith *et al.* (1998) reported similar insignificant findings until they compared the gender of the employee to the gender of the employer. They found that women were significantly more satisfied than men in small companies with female supervision, while males were significantly more satisfied in larger companies with male supervisors. But in some researches, the negative relationship between job satisfaction and professional women was found similar to results of Sloane and Ward (2001) who found a negative relationship, although only for women who were younger in age.

A perusal of the data given in the Table 4 indicates that the rural and urban background had no affect on the job satisfaction of the respondents in all the three state agricultural universities *viz.*, PAU, GBPUAT and HAU. It was further noticed that in PAU and HAU, nuclear and joint families did not affect the job satisfaction of the respondents while in GBPUAT, the job satisfaction varied in nuclear and joint families. There was significant difference at 1 per cent level in joint and nuclear families in relation to job satisfaction of agricultural scientists.

The data given in Table 4 envisaged that in GBPUAT, significant difference ($p < 0.01$) was observed among the families residing with the respondents and not residing with the respondents in respect to job satisfaction while PAU and HAU did not differ in this respect. It can be further observed that in relation to job satisfaction, there was no significant difference among the Assistant Professors, Associate Professors and Professors in all the three agricultural universities. This finding is in disagreement to the results of study conducted by Jacob and Sarah (2004) who stated that Assistant professors were less satisfied than Associate professors and Professors.

Implications of the study:

– In consideration of many components of job satisfaction, GBPUAT was significantly different from PAU and HAU at 1 per cent level of significance *viz.*,

opportunity to help others, opportunity to complete work, chance to do a whole piece of work, the fringe benefits *i.e.* housing, medical, provident fund etc. and in totality. Opportunity for professional growth and comforts of physical working conditions (place of work, transportation, light etc.) at 1 per cent level of significance and feeling of accomplishment at 5 per cent level of significance showed significant difference between PAU and GBPUAT. On the other hand, prestige of job inside the department, opportunity to do many things and freedom on job were significantly different at 1 per cent level and the components like opportunity to do challenging job, help from the administration in doing job and fairness of authority was significantly different at 5 per cent confidence level between GBPUAT and HAU.

– In all the three agricultural universities the correlation between the job satisfaction and age of the respondents was found to be negatively insignificant. Further, there was no significant difference between males and females with respect to their job satisfaction and Assistant Professors, Associate Professors and Professors showed insignificant difference in the same context. In HAU, there was negative and significant correlation between the job satisfaction and distance (kms) of the respondents from their permanent home. In GBPUAT, the job satisfaction varied in nuclear and joint families significantly at 1 per cent level of significance in relation to job satisfaction of agricultural scientists and significant difference ($p < 0.01$) was found among the families residing with respondents and not residing with the respondents in respect to job satisfaction.

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