

A SCALE TO MEASURE THE JOB SATISFACTION LEVEL OF AGRICULTURAL SCIENTISTS

S.S. Neware¹ and S. P. Pandya²

1 Ph.D. Scholar, Dept. of Agril. Extension, C.P. College of Agriculture, SDAU, Sardarkrushinagar - 385506

2 Planning officer, Directorate of Research, SDAU, Sardarkrushinagar - 385506

Email-santoshneware143@gmail.com

ABSTRACT

This study was undertaken to construct a scale to measure the job satisfaction level of scientists in agricultural universities of Gujarat state. The scale consists of thirteen main items such as compensation, promotion, training & development, career development, leadership style, welfare facilities, recognition/rewards, communication, working condition, work load, working facilities, job security and social status. For this study appropriate sub items beside main items were also documented. The consistency and legitimacy of the scale was established through suitable methods.

Keywords : satisfaction, compensation, recognition, communication, job security

INTRODUCTION

The exploration of job satisfaction provides management with valuable insights into various aspects such as job roles, employee well-being, and work environment, aiding in informed decision-making and alignment of organizational policies and practices. It serves as an indicator of overall satisfaction levels within the organization regarding its programs and policies.

In the field of education, it's crucial to possess not just physical presence but also a deep mental dedication and loyalty. This is because teaching demands a lot of effort and commitment. However, if agricultural university scientists are not content with their careers, they won't be motivated to enhance their performance, which is essential for fulfilling their three primary roles: teaching, research, and extension. Hence, the aim of this research is to explore the degree of job satisfaction among scientists in agricultural universities. Thus, this study was conducted to create and standardize a tool to assess the job satisfaction of scientists in agricultural universities within the state of Gujarat.

OBJECTIVE

To develop a scale to measure the job satisfaction level of agricultural scientists

METHODOLOGY

This study was constrained to "ex-post facto" research design as the independent variables already operated in the study area. There are four agricultural universities in Gujarat state. A total of 260 respondents, comprising Professors, Associate Professors, and Assistant Professors,

were selected from various universities using proportional stratified random sampling based on the distribution of agricultural scientists in teaching, research, and extension roles.

Construction of scale to measure the level of job satisfaction

A standardized test as defined by Noll (1957) is that has been constructed by experts in light of the suitable objectives, procedures for administering, scoring and interpreting scores are specified in details, so that no matter was given the test or where it may be given, the result should be comparable and norms or average for different age status have been predetermined, regardless of whether the test has been carries out or where it can be carried out. In light of this definition, a standardized scale to measure the job satisfaction was developed by using Normalized Rank Order Method recommended by Guilford (1954).

(1) Identification of the indicators

To classify the basic constituents of job satisfaction, a high-quality number of items pertaining to job satisfaction were collected all the way through review of literature and discussion with academic staff from state agricultural universities from Gujarat and members of the advisory committee. In all, thirteen items were selected tentatively as indicators of job satisfaction of agricultural scientists. The selected indicators were as compensation, promotion, training & development, career development, leadership style, welfare facilities, recognition/rewards, communication, working condition, work load, working facilities, job security and social status.

(2) Selection of judges

A group of 150 experts, extension educationists and scientists from different agricultural universities were selected as judges to develop job satisfaction scale.

(3) Judges opinion

An official letters were mailed to 150 judges, academic, administrative and extension personnel working in various State Agricultural Universities (SAUs). The panel of judges was tasked with evaluating the relevance of each indicator provided to them for potential inclusion in the scale measuring job satisfaction among agricultural scientists. Additionally, they were asked to prioritize the relevant indicators based on their significance in the measurement

process. A total of 100 judges participated in the survey

Based on judges' opinion, the main indicators were finalized. Then under each indicator, statements (sub-items) were prepared, for finalization of statements another set of 25 local experts, professors and scientists were contacted. They were requested to add or delete sub-items from a previously prepared list, which they believe to be suitable or not suitable for measuring the each indicator. Further, they were requested to score each sub-item according to their importance in measuring the indicators of the job satisfaction of agricultural scientists. On the basis of their suggestions, a total of 40 statements of 13 indicators with a maximum score of 200 were included in the instrument developed for measuring the job satisfaction of agricultural scientists. Edwin A. Locke (1976).

Table 1 : Statement finally selected to constitute job satisfaction level agricultural scientists

Sr. No.	Statement	SA	A	UD	DA	SDA
A	Compensation					
1	I am satisfied with timeliness of salary					
2	I am satisfied with various allowances like house rent, TA, DA, conveyance allowance etc.					
3	My salary adequate with the work					
4	University remuneration package is competitive					
B	Promotion					
5	I am satisfied with promotional opportunities provided in the present job					
6	My performance appraisal and promotion are well-defined					
7	Suitable professional development programs that can lead to promotions are accessible.					
C	Training & development					
8	The training and development programs have increased my confidence					
9	I am satisfied with support to participate in seminars symposia/ conferences.					
10	university arranges a sufficient number of training programs					
D	Career development					
11	I have scope and opportunity available for self development					
12	I feel that fair and transparent recruitment policy of the university					
13	I am satisfied with admiration to opportunities created to do higher studies in India and abroad					
E	Leadership style					
14	My superiors provide help, guidance and encouragement					
15	I am pleased with the relations with superiors in the university					
16	I am satisfied with the technical guidance given to you by the Dean/Head of Department					
17	Senior academics share useful information with junior academics					
F	Welfare facilities					
18	I satisfied with residential facilities provided by the university					
19	I am satisfied with regard to the library facilities available in the University					
20	I am satisfied with sports and recreational facilities provided by the university					
21	I am satisfied with respect to transport facilities provided at the university					
22	I am satisfied with regarding education facilities available for the children					
23	I am satisfied with medical facilities provided by the university					

Sr. No.	Statement	SA	A	UD	DA	SDA
G	Recognition/Rewards					
24	I have scope to prove the merit and excellence in the university					
25	I am satisfied with recognition given by the students and colleagues					
26	I am satisfied about the rewards and incentives provided by the university					
27	My work is evaluated according to organization`s set standards					
H	Communication					
28	I am informed about any new or revised policies					
29	Work assignments are not fully explained.					
30	Disciplinary procedure is well outlined and communicated to all					
I	Working condition					
31	I am satisfied with flexibilities provided for doing work					
32	I am satisfied with budget provided to organize educational activities					
J	Work load					
33	I am satisfied about my Working hours					
34	I have heavy work in the job					
35	I have no time for family due to high work load					
36	I am satisfied with provision of ICT facilities to do the job efficiently					
37	The University provides the equipment and resources necessary for me to execute my responsibilities					
L	Departmental Climate					
38	I feel appreciated for the work I done in the department					
39	I feel safe voicing my feelings in front of others in the department					
M	Status					
40	My job has good prestige in the society					

SA-Strongly agree, A-Agree, UD-Uncecided, DA-Disagre, SDA-Strongly Disagree

(4) Relevancy of scale indicators

The feedback collected from 100 judges validated the thirteen indicators. Indicators that achieved a 75.00 percent approval rating were considered appropriate for inclusion in the scale. It was observed that all the indicators

were found more than 75.00 per cent relevancy and thirteen indicators were included in the job satisfaction scale.

From the data so collected “Relevancy Per cent”, “Relevancy Weightage” and “Mean Relevancy Score” were worked out for all the thirteen indicators by using the following formulae:

$$\text{Relevancy per cent} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Maximum possible score}} \times 100$$

$$\text{Relevancy Weightage} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Maximum possible score}} \times 100$$

$$\text{Mean Relevancy Score} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Number of judges responded}} \times 100$$

The details on relevancy are furnished in Table 2

Table 2: Relevancy of indicators as judged by the experts

(n=100)

Sr. No.	Indicators	Relevancy per cent	Relevancy weightage	Mean relevancy score	Remarks
1	Compensation	97.20	0.97	4.86	Selected
2	Promotion	86.40	0.86	4.32	Selected
3	Training & development	90.00	0.90	4.50	Selected
4	Career development	89.40	0.89	4.47	Selected
5	Leadership style	85.80	0.86	4.29	Selected
6	Welfare facilities	89.60	0.90	4.48	Selected
7	Recognition/Rewards	91.00	0.91	4.55	Selected
8	Communication	89.80	0.90	4.49	Selected
9	Working condition	89.40	0.89	4.47	Selected
10	Work load	83.80	0.84	4.19	Selected
11	Working facilities	89.80	0.90	4.49	Selected
12	Job security	89.40	0.89	4.47	Selected
13	Social status	88.00	0.88	4.40	Selected

(5) Ranking of selected indicators

In order to obtain the rank of the selected indicators of the scale, same judges opinion was used. The judges were requested to rank the selected thirteen indicators according to their relative importance in measuring job satisfaction.

(6) Relevancy of sub-items of the indicators of job satisfaction

Thirteen indicators were included in the scale to measure the job satisfaction. For each component, sub items were prepared and they were also send to one hundred fifty judges to seek their relevance for measurement of the component under consideration. The judgment sheets were prepared with suitable instructions and sent to all the identified judges for their judgment on each of the item on a five- response category as most relevant, relevant, somewhat relevant, less and not-relevant with 5, 4, 3, 2 and 1 scores, respectively for indicating degree of relevance. Based on the hundred judges' responses all three relevancy weightages were calculated for all the statements. Those sub items having relevancy per cent more than 75 per cent, relevancy weightage more than 0.75 and mean relevancy score more than 3.75 of the judges were selected. Finally, 40 statements were selected.

The five points continuum were strongly agree, agree, undecided, disagree and strongly disagree with weight of 5,4,3,2 and 1, respectively for favourable or positive statements and with weight of 1,2,3,4 and 5 respectively for unfavourable or negative statements.

Twenty-five percent of statements with the highest total scores, as well as twenty-five percent with the lowest total scores, were carefully chosen to serve as the criterion groups for item analysis and critical ratio calculation in our

business evaluation process .(Patel Diksha and Dhodia A. J. (2015)

(7) Computing the scale values

The judges utilized a consistent set of criteria to assign ranks to the selected indicators, specifically considering their relative importance in measuring job satisfaction among members. Following the judges' rankings, the scale values for all indicators were determined using the Normalized Rank Approach recommended by Guilford (1954). The list of selected indicators and their corresponding scale values can be found in Table 3.

Table 3 : Scale value of different main indicators of the job satisfaction

(n = 100)

Sr. No.	Indicators	Scale value
1	Compensation	7.27
2	Promotion	7.63
3	Training & development	7.60
4	Career development	6.68
5	Leadership style	6.09
6	Welfare facilities	6.26
7	Recognition/Rewards	5.55
8	Communication	5.15
9	Working condition	6.09
10	Work load	6.97
11	Working facilities	6.00
12	Job security	5.69
13	Social status	6.00

The table 3, shown that highest scale value was obtained by compensation (7.27) and the lowest scale value was assigned for Recognition/Rewards (5.15) in the scale. (H.B. Gardharia 2013)

(8) Validity of the scale

The validity of the scale was confirmed by two methods viz., content validity and criterion validity.

(a) Content validity

The scale's content validity was established through two methods. Initially, a comprehensive and thorough review of the literature was conducted to collect and select indicators for inclusion in the scale. Additionally, the opinion of a panel consisting of 100 judges was sought to determine the appropriateness of the selected indicators. Over 75 percent of the judges endorsed the proposed indicators as relevant, confirming the validity of the scale.

(b) Criterion validity

The validity of the scale used in this study was confirmed through a significant correlation analysis between the job satisfaction scores of 30 agricultural scientists and their formal education levels. The correlation coefficient revealed a high level of significance at the 0.01 level, underscoring the reliability of the measurement instrument.

(9) Reliability of the scale

The split-half method of reliability was utilized in this study, with the scale being administered to a sample of 30 agricultural scientists from the research area. Following separation of the scores for alternate items, two distinct sets were created and analyzed using the coefficient of correlation. The resulting coefficient of correlation was determined to be 0.801, achieving statistical significance at the one percent

level of probability.

(10) Developing the Job Satisfaction index

In order to calculate the job satisfaction index for each agricultural scientists, each scale item was first rated for the maximum of that particular indicator and then the actual score obtained was divided by maximum score. Thus job satisfaction index (JSI) was calculated by using the following formula.

$$JSI = \frac{\sum (\text{Score obtained for the indicator})}{\sum (\text{Maximum score for the indicator})} \times 100$$

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