

Analysis of Motivational Attributes on Goals Satisfaction among Mechatronics Engineering Students

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Abstract: This study empirically examines the connection among activity safety, equal treatment of personnel, good revenue, process pleasure, properly operating circumstance, and reward for fulfillment via the students of the department Electrical and Electronics Engineering, Mechanical Engineering and Mechatronics Engineering of Maharaja Engineering College, Avinashi, Tamilnadu through the use of self-designed questionnaires containing 20 attributes. The sample size became 294 so 294 questionnaires were disbursed and only forty had been selected. Evaluation became finished the usage of Microsoft excel and the result concludes that there's a sizeable wonderful relationship among college students' motivation and their profession boom. Activity protection, identical remedy of personnel, and pleasant goals have been decided on through the above Engineering college students. Consequently it could be concluded that the motivation is the very crucial aspect in estimating the behavior of the character.

Keywords:-Job Security, Good salary, Promotions / Expectation, Engineering Students, Organizational Behavior, Attributes, Motivation.

1. Introduction

1.1 Importance of Motivation

Motivation is one of the important functions of the management without which organizational objectives are difficult to achieve. It is an integral part of the management process and every manager must motivate his subordinates to create in them the will to work. Motivation is necessary for the better performance. The importance of motivation is briefly given below. [1]

- a) Motivation creates a willingness of workers to do their work in a better way.
- b) Motivation is the basis of co-operation to get the best results out of the efforts of the men on the job.
- c) Proper utilization of human resources possible since it inspires employees to make best possible use of different factors of production.
- d) Higher motivation leads to job satisfaction and hence labor absenteeism and turnover are reduced.
- e) A proper motivation scheme promotes a closer relationship between organization and workers. [2-3]
- f) High motivation helps to reduce resistance to change. By providing proper motivation, all the members will try to be as efficient as possible. [4-5]

1.2 Herzberg Theory

This theory implies that for the happiest and most productive workforce you need to work on improving both motivator and hygiene factors.

1. To help motivate your employees make sure that they feel appreciated and supported. Give plenty of feedback and make sure that the employees understand how they can grow and progress through the company.
2. To prevent job dissatisfaction make sure that your employees feel that they are treated right by offering them the best possible working condition. And fair pay.
3. Make sure you pay attention to your team and form supportive relationships with them.

1.3 Special Motivational Techniques

Various theories of motivation suggest that several factors influence the performance of employees. But some of the factors are more predominant as compared with others. Some of the major motivational factors are identified as given below.

1.3.1 Money

Money is one of the important motivational factors. It may be in the form of wages, incentives, bonuses, the company paid insurance or any other things that may be given to people for performance. [9]. The Manager should remember the followings when money is a kind of motivator.

1. Money is likely being more important to people who are raising a family. Money is an urgent means of achieving a minimum standard living.
2. Various enterprises make wages and salaries competitive within their industry and their area to attract and hold people.
3. Money not only satisfies physiological and security needs but is also a source of status and prestige in society.
4. Management should ensure that individual workings in the same category are given the same or nearly the same salary and wages within the organization as well as the other organization in the surrounding areas.
5. Even if a company is committed to the practice of comparable wages and salaries, a well-managed firm need never be bound to the same practices with respect

to bonuses i.e., the bonuses for managers should be based on their individual performance and outcomes.

1.3.2 Participation

Research on motivation reveals that majority of workers are capable of creativity and self-control. Their consultation and participation in work-related issues have a favorable effect on their motivation and performance. Such participation reflects a genuine faith in human nature and provides dignity to labors. Participation is also a means of recognition. It appeals to the need for affiliation and acceptance. Further, it gives people a sense of accomplishment. [10]

1.3.3 Quality of Working Life

One of the most important and interesting approaches to motivation is the quality of working life. Good physical working conditions such as right temperature, adequate lightning, proper ventilation, noise free atmosphere have positive effects on the motivation and performance of workers. [11]

2. Research Methodology & Data Collection

2.1 Data Survey

Several references were utilized, for this article. The books and articles were found using the search engines and databases available at Maharaja Engineering College and the Internet. From a review of the literature, a survey questionnaire was developed to collect data for the study from the engineering students of the Department of EEE of Maharaja Engineering College. The survey questionnaire developed included a list of twenty attributes. During the study period, 75 surveys were administered to students who represent the target population of this article. These typed questionnaires were all hand-delivered to participants and 50 were selected.

The relevant explanation for the questionnaire is given to the students. The questionnaire asked participants to rank the surveys twenty questions according to how important

each is in motivating them as future employees to perform best at work. The most important attribute was ranked 5 and least important ranked 1. All attributes were to be ranked and no rank could be used more than once. The participants were as well asked to indicate their; Name, Department, Gender, Age, Class, e-mail Id.

2.2 Data Analysis

After data were collected on all the attributes, excel computer program was used to present the results. The collective rank order was determined by entering the ranking given to each of the 20 attributes in the survey questionnaire. After entering the rankings given to each attribute by each student, the total or sum of all the rankings for that attribute was totaled. This system of data analysis was found to be more appropriate as different participants gave a different ranking for the same attribute.

The research for this article could be considered as a field research as it is carried out among engineering students who happen to constitute the future work force. Furthermore, to ensure both internal and external validity believes to have used the most accurate and up-to-date literature.

The right and relevant questions asked in the survey, the most feasible data collection method used, and the tools used to analyze the data are also considered to be accurate and produce valid results, the overall validity of this article is considered to be high. Finally, the aim of this article is to determine attributes that motivate Engineering students at present.

2.3 Presentation of Data and Discussion of Results

Questionnaires were issued to EEE, Mechanical and Engineering and Mechatronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in table 1 and the rank assigned to attributes is shown in figure 1.

Table 1 Consolidated Rank Assigned to Attributes by the Students of EEE

S.No	STUDENTS→	% Assigned to Attributes			Average %	Ranks
	ATTRIBUTES↓	II YEAR	III YEAR	IV YEAR		
1	Good Salary	5.09	5.94	5.22	5.4196	4
2	Job Satisfaction	5.51	5.39	5.29	5.3938	5
3	Team Spirit	4.85	4.77	5.29	4.9679	12
4	Promotions/ Expectation	5.45	5.70	5.16	5.4366	3
5	Management Styles	4.79	5.20	4.56	4.8494	15
6	Recognition	4.85	5.02	4.56	4.8074	16
7	Satisfying Goals	5.57	5.08	5.22	5.2903	8
8	Possibilities of Layoffs	2.87	3.10	4.13	3.3672	20
9	Working Hours	4.91	4.33	4.56	4.6003	18
10	Good Working Conditions	5.39	5.63	5.41	5.4770	1
11	Job Security	5.45	5.76	5.10	5.4370	2
12	A Feeling of Being Involved	4.85	4.77	4.50	4.7046	17
13	Gratitude for Job well done	4.97	4.64	5.04	4.8855	14
14	Support for learning and training	5.21	5.33	5.47	5.3342	6
15	Opportunity for honest feedback	5.03	5.14	5.35	5.1719	10
16	Equal treatment of employees	4.73	5.02	5.16	4.9700	11
17	Rewards for achievements	5.45	5.39	5.04	5.2929	7
18	Good Communication Skills	5.63	4.77	5.22	5.2071	9
19	Supervisor's help with personal problems	4.49	4.46	4.43	4.4614	19
20	Clear communication system	4.91	4.58	5.29	4.9259	13
TOTAL		100.00	100.00	100.00	100.00	

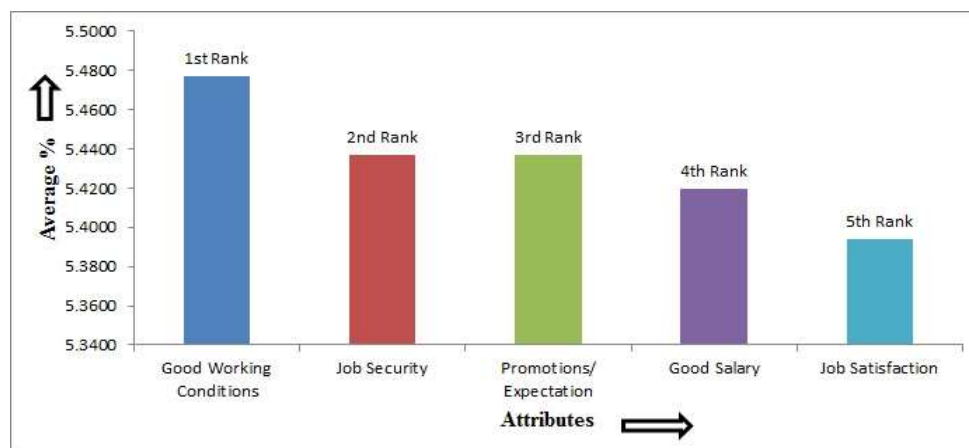


Fig.1 Ranks Assigned to Attributes by EEE Engineering Students

Final year EEE students have selected Good Working Conditions as First Rank. Job Security as second rank and Promotion/Expectation as third rank, Good Salary as fourth rank and Job Satisfaction as fifth rank. Questionnaires were issued to Mechanical Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in table 2. The students of the Department of Mechanical

Engineering student have selected Equal treatment of employees as first rank, Good working condition as second rank ,support for learning and training as third ,opportunity for honest feedback as fourth and job security as fifth respectively. The consolidated is given below in table 2 and the corresponding rank assigned attributes are shown in Figure 2.

Table 2 Consolidated Ranks Assigned to Attributes by the Students of Mechanical Engineering

S.No	STUDENTS→ ATTRIBUTES ↓	% Assigned to Attributes						Average %	Ranks
		III YEAR-S 1	III YEAR-S 2	III YEAR-S 3	IV YEAR-S 1	IV YEAR-S 2	IV YEAR-S 3		
1	Good Salary	5.04	5.56	4.87	5.23	4.83	5.06	5.10	12
2	Job Satisfaction	5.58	5.43	5.27	5.23	5.02	5.48	5.33	7
3	Team Spirit	5.91	5.82	5.33	5.60	4.83	5.18	5.45	4
4	Promotions/ Expectation	5.24	5.30	5.07	4.85	5.08	5.30	5.14	11
5	Management Styles	4.84	5.05	4.81	4.60	4.10	4.69	4.68	16
6	Recognition	4.23	4.66	4.87	4.92	4.71	4.57	4.66	17
7	Satisfying Goals	5.85	5.69	5.99	5.35	5.51	5.48	5.65	3
8	Possibilities of Layoffs	1.95	2.01	2.63	4.04	3.12	3.47	2.87	20
9	Working Hours	4.64	4.08	3.69	4.85	4.90	4.57	4.45	18
10	Good Working Conditions	4.91	5.63	5.07	5.60	5.45	5.24	5.32	8
11	Job Security	5.04	5.50	5.66	4.98	5.32	5.18	5.28	9
12	A Feeling of Being Involved	5.44	5.05	5.33	5.48	5.75	5.48	5.42	5
13	Gratitude for Job well done	4.97	4.72	4.74	5.16	5.14	4.94	4.95	15
14	Support for learning and training	5.85	5.89	5.79	5.72	5.32	5.42	5.67	1
15	Opportunity for honest feedback	5.38	5.05	5.73	5.29	5.20	5.48	5.35	6
16	Equal treatment of employees	6.05	6.21	6.12	4.73	5.39	5.48	5.66	2
17	Rewards for achievements	4.91	4.79	5.20	4.92	5.39	5.12	5.05	13
18	Good Communication Skills	5.11	4.46	4.61	5.23	5.26	5.18	4.97	14
19	Supervisor's help with personal problems	3.43	3.49	3.62	3.48	4.28	3.96	3.71	19
20	Clear communication system	5.65	5.63	5.60	4.73	5.39	4.69	5.28	10
TOTAL		100.00	100.00	100.00	100.00	100.00	100.00		

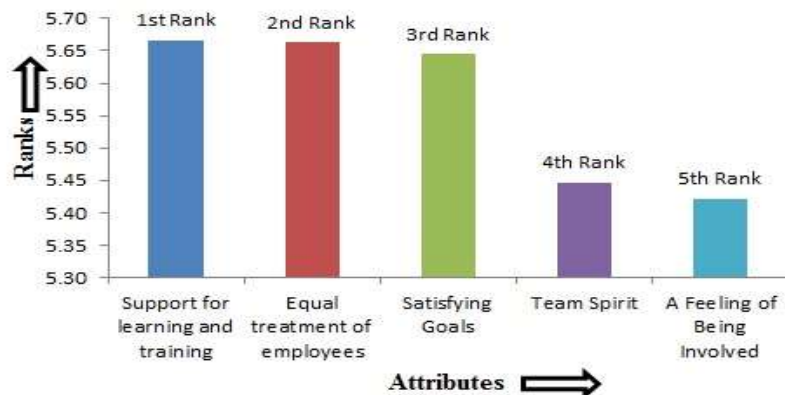


Fig.2 Ranks Assigned to Attributes for Mechanical Engineering Students

Questionnaires were issued to Mechatronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in Table 3. The students of Mechatronics engineering selected Job Satisfaction as the first rank, A feeling of

being involved as second rank, satisfying goals as the third rank, Good communication skills as the fourth rank and Good working conditions as fifth rank. The consolidated is given below in table 3 and the corresponding rank assigned attributes are shown in Figure 3

Table 3 Consolidated Ranks Assigned to Attributes by the Students of Mechatronics Engineering

S.No	STUDENTS→	% Assigned to Attributes		Average %	Ranks
	ATTRIBUTES↓	Sheet-1	Sheet-2		
1	Good Salary	5.16	5.17	5.17	10
2	Job Satisfaction	5.66	5.29	5.47	1
3	Team Spirit	5.04	4.83	4.94	15
4	Promotions/ Expectation	5.41	5.29	5.35	7
5	Management Styles	4.60	4.78	4.69	16
6	Recognition	5.10	5.00	5.05	11
7	Satisfying Goals	5.85	5.06	5.45	3
8	Possibilities of Layoffs	2.30	3.64	2.97	19
9	Working Hours	4.29	4.43	4.36	17
10	Good Working Conditions	5.72	5.00	5.36	5
11	Job Security	5.23	5.29	5.26	9
12	A Feeling of Being Involved	5.60	5.34	5.47	2
13	Gratitude for Job well done	4.92	5.12	5.02	13
14	Support for learning and training	5.60	5.12	5.36	6
15	Opportunity for honest feedback	5.41	5.12	5.27	8
16	Equal treatment of employees	4.79	5.12	4.95	14
17	Rewards for achievements	5.04	5.06	5.05	12
18	Good Communication Skills	5.48	5.29	5.38	4
19	Supervisor's help with personal problems	3.61	4.89	4.25	18
20	Clear communication system	5.16	5.17	5.17	10
TOTAL		100.00	100.00	100.00	

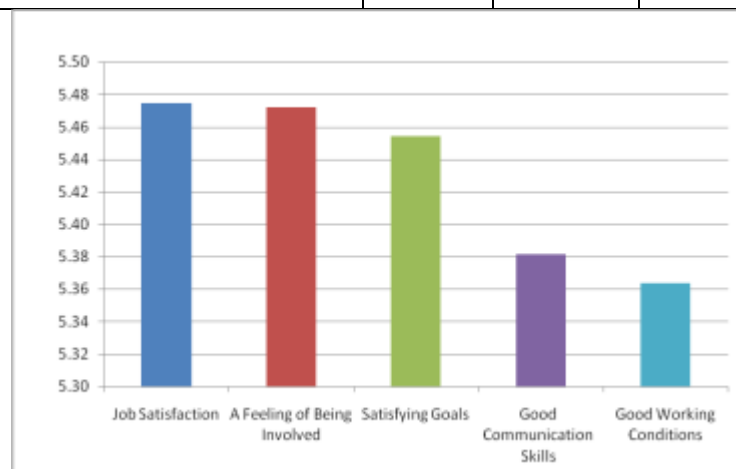


Fig.3 Ranks Assigned to Attributes for Mechatronics Engineering Students

A consolidated report for all the three department was taken and the rank assessment summary is given in the Table

4.The ranks given for the various attributes is shown in the figure 4.

Table 4 Comparison of Ranks Assigned to Attributes by the Students of EEE and MECH & MTS

S.No	STUDENTS→ ATTRIBUTES↓	% Assigned to Attributes			Average %	Ranks
		EEE	MECH	MTS		
1	Good Salary	5.4196	5.10	5.17	5.2293	8
2	Job Satisfaction	5.3938	5.33	5.47	5.4011	3
3	Team Spirit	4.9679	5.45	4.94	5.1171	14
4	Promotions/ Expectation	5.4366	5.14	5.35	5.3096	6
5	Management Styles	4.8494	4.68	4.69	4.7403	17
6	Recognition	4.8074	4.66	5.05	4.8401	16
7	Satisfying Goals	5.2903	5.65	5.45	5.4635	1
8	Possibilities of Layoffs	3.3672	2.87	2.97	3.0696	20
9	Working Hours	4.6003	4.45	4.36	4.4725	18
10	Good Working Conditions	5.4770	5.32	5.36	5.3853	4
11	Job Security	5.4370	5.28	5.26	5.3248	5
12	A Feeling of Being Involved	4.7046	5.42	5.47	5.1997	9
13	Gratitude for Job well done	4.8855	4.95	5.02	4.9493	15
14	Support for learning and training	5.3342	5.67	5.36	5.4531	2
15	Opportunity for honest feedback	5.1719	5.35	5.27	5.2637	7
16	Equal treatment of employees	4.9700	5.66	4.95	5.1958	10
17	Rewards for achievements	5.2929	5.05	5.05	5.1317	12
18	Good Communication Skills	5.2071	4.97	5.38	5.1878	11
19	Supervisor's help with personal problems	4.4614	3.71	4.25	4.1408	19
20	Clear communication system	4.9259	5.28	5.17	5.1248	13
TOTAL		100.00	100.00	100.00	100.00	



Figure 4 Comparison of Ranks Assigned to Attributes by the Students of EEE, CSE & MTS

3. Conclusions

The students of the Department of EEE, Mechanical Engineering and Mechatronics engineering has selected Satisfying Goals as their first rank, Support for Learning and Training as second rank, Job Satisfaction as their third rank, Good Working Conditions as their fourth rank Job Security as their fifth rank respectively. It's far concluded that the lengthy-time period survival of any companies depends in large part at the motivation of its employees. Therefore companies need to be willing to continuously and

on everyday basis, adopt employee's surveys including this one with a purpose to understand what their employees expect from their contemporary task. The end result of such physical games ought to show useful for the company. In the end, the outcomes of this observe and people presented and discussed in this article could be beneficial in helping organizations decide what motivates employees today and inside the foreseeable future.

5. References

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