

A Study on the Effect of Motivation among the Students of the Department of Electrical and Electronics Engineering of an Engineering College in Tamilnadu

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ABSTRACT :Dozens of millions of tons of plastics and other debris The purpose of this study is to assess the rank of motivation attributes by the Engineering students. This study is carried out among students of Maharaja Engineering College who are assumed to be future Engineers. The survey is intended to get their response on what they feel the best attributes that could motivate them as future engineers among a list of twenty motivational attributes. By this method, the study sets to identify the most ranked attributes among the twenty motivational attributes. This analysis shows that Equal Treatment of Employees stands as the first rank among the most ranked attributes for this survey. However, the studies made by the past researchers showed that different results could be obtained from different groups of students from different engineering colleges at different locations.

Keywords: - *Motivation, Satisfaction, Organizational Behavior, Attributes, Equal treatment*

1. Introduction to Motivation

Motivation is the process of inducing people inner drives and actions toward certain goals and committing their energies to achieve these goals. Motivation is the very important factor in estimating the behavior of the individual. Every organization has people with outstanding abilities

who perform better than others. Some people perform well compare to others because of motivations.

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.

- 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.
- f) High motivation helps to reduce resistance to change. By providing proper motivation, all the members will try to be as efficient as possible.

1.2 Maslow's Hierarchy of Need Theory

Dr.Maslow was the pioneer in the proper classification of human needs. Some of the salient features of this theory are as follows.

- i. Human wants are innumerable and never ending if one want is satisfied, another want emerges in that place.
- ii. Adult motives are complex. No single motive determine behavior, rather, a number of motives operate at the same time.
- iii. Human needs form a hierarchy. Lower levels needs must at least partly be satisfied before higher level needs emerge. In other words, a higher order needs are essentially satisfied.
- iv. Satisfied wants do not motivate the workers. Only Unsatisfied wants induce the man to work hard.
- v. Various needs can be inter-dependent and overlapping.
- vi. Higher level needs can be satisfied in much more ways than can the lower levels needs.
- vii. Maslow proposed that basic needs are structured in a hierarchy as shown in the figure.
 - 1.



Fig 1. Maslow's Hierarchy of Needs

These needs are further explained in details as follows.

1.2.1 Physiological Needs

Physiological needs are the biological needs required to preserve human life. These needs include needs for food, clothing and shelter. These needs must be met at least partly before higher level needs emerge.

1.2.2 Security Needs

Once physiological needs are satisfied, the safety or security needs become predominant. These include,

- a. Protection from physiological dangers
- b. Economic security
- c. Desire for an orderly, predictable environment and The desire to know the limits of acceptable behavior.

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.

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.

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.

2. Research Methodology & Data Collection

2.1 Data Survey

To develop a strong theoretical background, several of these materials were utilized, for this project. 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 various departments of Maharaja Engineering College. The

survey questionnaire developed included a list of twenty attributes. During the study period, 244 surveys were administered to Maharaja Engineering College students who represent the target population of this project. These typed questionnaires were all hand-delivered to participants and collected back. 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 Collection

The purpose of this project is to assess the role of motivation in enhancing employee's performance in organizations, utilizing Maslow's hierarchy of need theory as a foundation in order to achieve this aim. The process through which this would be obtained is by allowing individuals to rank a given set of adapted motivational attributes according to how important each is in motivating them as future employees to perform best at work. As a result, a total of 43 questionnaires (see appendix for a sample of administered questionnaire), were prepared and randomly administered among students of Department of Electrical and Electronics Engineering of Maharaja Engineering College.

2.3 Data Analysis

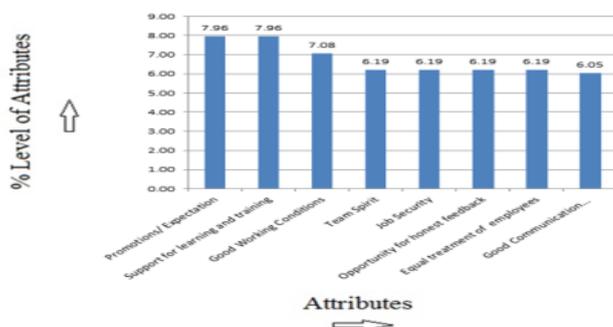
After data were collected on all the attributes, excel computer program was used to present the results. The collective rank order was determined by entering the ranking given to each of the 20 attributes in the survey questionnaire. After entering the rankings given to each attribute by each student, 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 project 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 project is considered to be high. Finally, the aim of this project is to determine attributes that motivate Engineering students at present.

3. Presentation of Data and Discussion of Results

Questionnaires were issued to final year Electrical and Electronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in Table 1

Table 1 Rank Assessment Summary Sheet-1

		Title of The Project: A Study on the Effect of Motivation among Engineering College Students for their Career Growth																												
		Department: EEE										Class: IV year																		
S.No	STUDENTS→	STUDENT 1	STUDENT 2	STUDENT 3	STUDENT 4	STUDENT 5	STUDENT 6	STUDENT 7	STUDENT 8	STUDENT 9	STUDENT 10	STUDENT 11	STUDENT 12	STUDENT 13	STUDENT 14	STUDENT 15	STUDENT 16	STUDENT 17	STUDENT 18	STUDENT 19	STUDENT 20	No. of times Marks Assigned to the Attribute					Total Marks Assigned to the Attribute	% for 5 Marks Assigned	Rank of the Attribute based on the %	
	ATTRIBUTE↓	5 Marks	4 Marks	3 Marks	2 Marks	1 Marks																								
1	Good Salary	5	4	3	4	5	4	5	3	3	5	4	4	3	5	4	5					6	6	4	0	0	66	5.31	4	
2	Job Satisfaction	5	5	5	5	4	4	4	4	5	4	2	5	4	4	4	4					6	9	0	1	0	68	5.31	4	
3	Team Spirit	5	4	5	5	4	3	5	4	4	5	5	4	3	5	3	4					7	6	3	0	0	68	6.19	3	
4	Promotions/ Expectation	3	3	4	5	5	4	5	2	5	5	3	5	3	5	5	5					9	2	4	1	0	67	7.96	1	
5	Management Styles	4	4	4	5	4	4	5	3	3	3	2	3	2	4	3	3					2	6	6	2	0	56	1.77	7	
6	Recognition	4	3	3	4	3	5	5	5	5	4	1	1	1	4	3	4					4	5	4	0	3	55	3.54	6	
7	Satisfying Goals	5	5	4	3	4	4	5	4	5	5	4	5	2	4	4	4					6	8	1	1	0	67	5.31	4	
8	Possibilities of Layoffs	3	2	5	4	4	3	3	4	4	5	1	3	3	1	1	4					2	5	5	1	3	50	1.77	7	
9	Working Hours	3	3	5	3	4	5	4	2	3	5	1	5	3	3	3	5					5	2	7	1	1	57	4.42	5	
10	Good Working Conditions	4	5	5	3	4	5	5	4	4	5	2	5	4	4	5	5					8	6	1	1	0	69	7.08	2	
11	Job Security	4	4	2	3	3	5	4	5	5	5	5	5	2	5	4	4					7	5	2	2	0	65	6.19	3	
12	A Feeling of Being Involved	3	2	5	4	4	1	5	4	3	4	2	4	2	4	3	4					2	7	3	3	1	54	1.77	7	
13	Gratitude for Job well done	4	4	3	5	3	5	4	4	4	5	4	3	3	4	5	5					5	7	4	0	0	65	4.42	5	
14	Support for learning and training	5	5	5	3	3	4	4	5	5	5	5	5	3	4	5	4					9	4	3	0	0	70	7.96	1	
15	Opportunity for honest feedback	4	4	5	3	4	5	5	4	5	4	4	5	3	5	5	3					7	6	3	0	0	68	6.19	3	
16	Equal treatment of employees	5	3	5	4	3	5	5	4	5	3	5	5	3	3	4	3					7	3	6	0	0	65	6.19	3	
17	Rewards for achievements	5	4	4	3	4	4	4	5	4	4	5	5	2	3	4	4					4	9	2	1	0	64	3.54	6	
18	Good Communication Skills	5	3	5	4	5	4	5	5	4	4	3	4	3	5	3	5					7	5	4	0	0	67	6.19	3	
19	Supervisor's help with personal problems	4	4	3	3	4	5	3	4	2	2	1	5	2	5	5	3					4	4	4	3	1	55	3.54	6	
20	Clear communication system	5	5	5	4	4	4	5	4	4	3	5	4	3	5	4	4					6	8	2	0	0	68	5.31	4	
		TOTAL																				113	113	68	17	9	1264	100		



S.No	ATTRIBUTES	RANK
1	Promotions/ Expectation	1
2	Support for learning and training	1
3	Good Working Conditions	2
4	Team Spirit	3
5	Job Security	3
6	Opportunity for honest feedback	3
7	Equal treatment of employees	3
8	Good Communication Skills	3

Fig.1 Ranks Assigned to Attributes by IV Year Electrical and Electronics Engineering Students for Summary Sheet-

Table 3 Rank Assessment Summary Sheet-3

		Title of The Project: A Study on the Effect of Motivation among Engineering College Students for their Career Growth																												
		Department: EEE										Class: II year																		
S.No	STUDENTS→	STUDENT 1	STUDENT 2	STUDENT 3	STUDENT 4	STUDENT 5	STUDENT 6	STUDENT 7	STUDENT 8	STUDENT 9	STUDENT 10	STUDENT 11	STUDENT 12	STUDENT 13	STUDENT 14	STUDENT 15	STUDENT 16	STUDENT 17	STUDENT 18	STUDENT 19	STUDENT 20	No. of times Marks Assigned to the Attribute					Total Marks Assigned to the Attribute	% for 5 Marks Assigned	Rank of the Attribute based on the %	
	ATTRIBUTE↓	5 Marks	4 Marks	3 Marks	2 Marks	1 Mark																								
1	Good Salary	5	4	4	4	4	4	3	4	4	4	4	4	4	4							1	12	1	0	0	56	1.12	9	
2	Job Satisfaction	4	5	5	5	4	5	4	4	5	4	4	5	5	5							8	6	0	0	0	64	8.99	3	
3	Team Spirit	5	4	4	3	3	3	3	3	4	5	3	5	3	5							4	3	7	0	0	53	4.49	6	
4	Promotions/ Expectation	5	5	5	4	5	4	4	4	4	5	5	4	4	4							6	8	0	0	0	62	6.74	4	
5	Management Styles	4	3	4	2	4	3	5	3	5	4	3	4	3	4							2	6	5	1	0	51	2.25	8	
6	Recognition	4	4	5	3	4	5	4	4	5	4	3	5	4	3							4	7	3	0	0	57	4.49	6	
7	Satisfying Goals	5	5	5	5	3	4	5	5	4	5	4	5	5	5							10	3	1	0	0	65	11.24	1	
8	Possibilities of Layoffs	1	1	1	1	1	1	3	1	4	2	1	1	2	1							0	1	1	2	10	21	0.00	10	
9	Working Hours	4	4	4	3	3	4	4	4	4	3	4	4	4	4							0	11	3	0	0	53	0.00	10	
10	Good Working Conditions	5	5	5	4	5	5	5	5	3	4	4	3	5	4							8	4	2	0	0	62	8.99	3	
11	Job Security	5	5	5	4	4	5	4	5	4	4	4	4	5	4							6	8	0	0	0	62	6.74	4	
12	A Feeling of Being Involved	5	4	4	3	3	5	4	4	2	5	2	5	5	4							5	5	2	2	0	55	5.62	5	
13	Gratitude for Job well done	5	4	4	3	4	3	5	4	4	4	3	3	4	4							2	8	4	0	0	54	2.25	8	
14	Support for learning and training	5	5	5	4	3	4	4	5	3	4	5	4	4	4							5	7	2	0	0	59	5.62	5	
15	Opportunity for honest feedback	4	4	5	5	4	5	3	4	2	5	3	5	3	5							6	4	3	1	0	57	6.74	4	
16	Equal treatment of employees	4	4	5	3	2	4	3	3	3	5	5	4	3	3							3	4	6	1	0	51	3.37	7	
17	Rewards for achievements	5	5	5	4	5	4	5	5	4	3	4	3	5	5							8	4	2	0	0	62	8.99	3	
18	Good Communication Skills	5	5	4	4	4	5	5	5	5	4	5	5	4	5							9	5	0	0	0	65	10.11	2	
19	Supervisor's help with personal problems	3	4	4	3	4	4	4	3	1	4	3	4	3	4							0	8	5	0	1	48	0.00	10	
20	Clear communication system	4	5	4	4	3	3	3	4	5	4	3	4	4	4							2	8	4	0	0	54	2.25	8	
TOTAL																						89	122	51	7	11	1111	100		

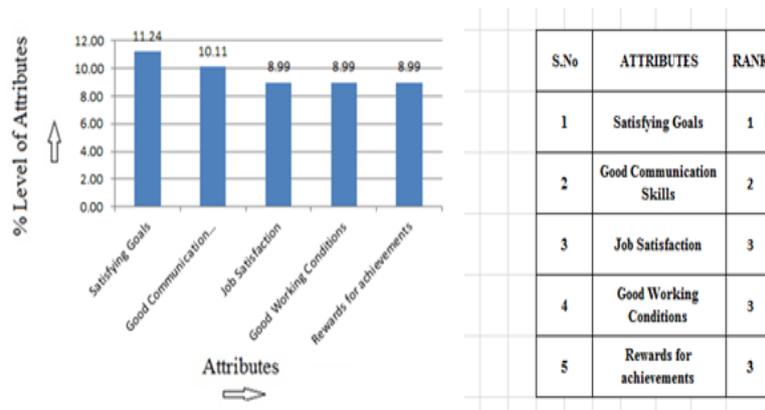


Fig. 3 Ranks Assigned to Attributes by II Year Electrical and Electronics Engineering Students for SummarySheet-3

Final year Electrical and Electronics Engineering students have selected **Promotions / Expectations** and **Support for Learning & Training** as **First Rank**. Good working condition as

Questionnaires were issued to third year Electrical and Electronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in table 2 Ranks Assigned to Attributes by III Year Electrical and Electronics Engineering Students in Summary Sheet – 2 are shown in fig.2

Third year Electrical and Electronics engineering students selected **Good Salary** as **First Rank**. Promotions / Expectations are selected as second

Second year Electrical and Electronics Engineering students has selected **Satisfying Goals** as **First Rank**. Good Communication Skills is selected as second rank. Job Satisfaction, Good working conditions and Rewards for achievements are selected as third rank. Comparison of Ranks Assigned to Attributes by the Students of the Department of Electrical and Electronics Engineering is shown in table 4.

Table 4 Comparison of Ranks Assigned to Attributes by the Students of the Department of Electrical and Electronics Engineering

S.No	ATTRIBUTES	II YEAR	III YEAR	IVYEAR	Final Rank Assigned
1	Promotions/ Expectation		2	1	First Rank
2	Good Working Conditions	3	3	2	Second Rank
3	Good Communication Skills	2		3	Third Rank
4	Support for learning and training		3	1	Third Rank

second rank. Team Sprit, Job security, Opportunity for honest feedback, Equal treatment of employees and Good communication skills are selected as third rank.

rank. Good Working Conditions and Support for Learning & Training are selected as third rank. Questionnaires were issued to Second year Electrical and Electronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in table 3. Ranks Assigned to Attributes by II Year Electrical and Electronics Engineering Students in Summary Sheet – 3 are shown in fig.3

4. Conclusions

The students of the department of Electrical and Electronics Engineering have selected **Promotions / Expectation** as **First Rank**. Good Working Conditions is selected as second rank. Good Communication skills and Support for Learning & Training are selected as third rank. It is concluded that the long-term survival of any organizations depends largely on the motivation of its employees be it financial or non-financial. Therefore organizations should be willing to continuously and on regular basis, undertake employees surveys such as this one in order to understand what their employees expect from their current job. The result of such exercises could prove useful for the organizations, because of knowing what their employees want and efforts in meeting these needs facilitate a mutual working environment for both the employees and its management. Finally, the results of this study and those presented and

discussed in this project could be useful in helping organizations determine what motivates employees or job-related motivational preferences of their employees today and in the foreseeable future.

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