

A Study on the Effect of Motivation among the Students of the Department of Computer Science and Mechatronics Engineering of an Engineering College in Tamilnadu

*Dr. N. Kuppuswamy¹, Dr. P. Sridharan², L. Vigneash³

¹Professor and Principal, ³Assistant Professor / ECE, Maharaja Engineering College, Avinashi, Tamilnadu-641654, India
²Associate Professor Mechanical Engineering, Vimal Jyothi Engineering College, Chemperi, Kannur- 670632, India

Abstract: This review exactly looks at the connection between Good Salary, Job Satisfaction, Team Spirit, Promotions / Expectation, Management Styles, Recognition, Satisfying Goals, Possibilities of Layoffs, Working Hours, Good Working Conditions, Job Security and so forth, by the Students of the departments of Computer Science Engineering and Mechatronics Engineering of Maharaja Engineering College, Avinashi, and Tamilnadu by utilizing self-outlined polls containing 20 attributes. The specimen size was 55 so 55 surveys were circulated and just 40 was chosen. Examination was done utilizing Microsoft excel expectations and the outcome reasons that there is a noteworthy positive connection between students inspiration and their vocation development. Equal Treatment of Employees, Job Security and Satisfying Goals were chosen by the above Engineering students. Thus it might be inferred that the motivation is the critical consider assessing the behavior of the person.

Keywords: Equal treatment of Employees, Job Security, Satisfying Goals, Engineering Students, Organizational Behavior, Industrial Relations, Attributes and Motivation

1. Importance of Motivation

Motivation is one of the imperative elements of the administration without which authoritative targets are hard to accomplish. It is a vital piece of the administration procedure and each supervisor must inspire his subordinates to make in them the will to work. Motivation is fundamental for the better execution. The significance of motivation is given beneath.

- a) Motivation makes an eagerness of workers to do their work better.
- b) Motivation is the premise of co-operation to get the best outcomes out of the endeavors of the men at work.
- 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. The urge to fulfill needs is a prime factor in the motivation of people at work. People seek growth; they want to move up the hierarchy of needs. Usually, people seek the satisfaction of higher order needs.

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.
- a. 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 lighting, proper ventilation, noise free atmosphere have positive effects on the motivation and performance of workers.

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

Computer Science and Mechatronics Engineering of Maharaja Engineering College. The survey questionnaire developed included a list of twenty attributes. During the study period, 55 surveys were administered to students who represent the target population of this article. These typed questionnaires were all hand-delivered to participants and 40 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.

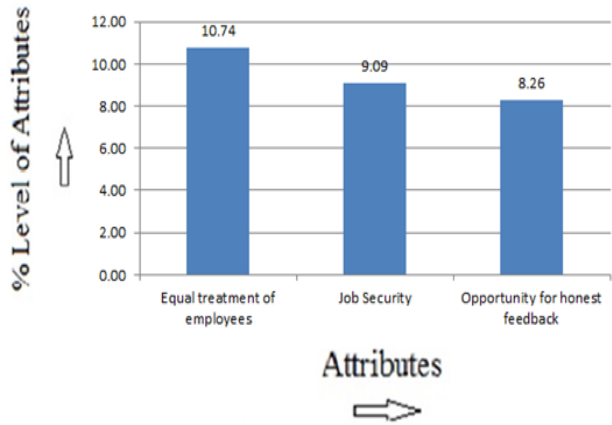
3. Presentation of Data and Discussion of Results

Questionnaires were issued to Final year Computer Science 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: CSE										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 MarksAssigned 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	5 Marks	4 Marks	3 Marks	2 Marks	1 Marks																										
1	Good Salary	4	3	3	2	4	4	5	5	4	4	4	1	4	4	5	5	5	5	5	4	7	9	2	1	1	80	5.79	6								
2	Job Satisfaction	4	4	4	3	4	4	4	4	4	5	4	3	4	5	3	5	4	4	4	3	3	13	4	0	0	79	2.48	9								
3	Team Spirit	5	5	5	3	4	3	3	5	1	2	5	2	3	4	4	4	3	3	3	4	5	5	7	2	1	71	4.13	8								
4	Promotions/ Expectation	4	3	2	2	4	5	4	3	3	5	4	3	4	5	5	5	4	4	3	4	5	8	5	2	0	76	4.13	8								
5	Management Styles	4	2	3	4	3	2	3	4	2	2	5	4	3	4	3	3	4	4	2	3	1	7	7	5	0	64	0.83	11								
6	Recognition	3	3	5	5	4	3	4	4	3	4	3	5	4	3	3	3	4	3	4	4	3	8	9	0	0	74	2.48	9								
7	Satisfying Goals	4	2	4	3	4	4	4	5	5	4	5	5	5	4	3	2	4	4	5	4	6	10	2	2	0	80	4.96	7								
8	Possibilities of Layoffs	3	3	5	4	3	3	3	2	4	4	4	4	4	3	5	5	3	4	5	5	5	7	7	1	0	76	4.13	8								
9	Working Hours	4	4	4	3	4	4	4	3	4	5	5	5	4	4	3	4	5	5	4	4	5	12	3	0	0	82	4.13	8								
10	Good Working Conditions	4	5	5	3	5	4	5	4	5	4	4	5	5	5	4	4	3	4	5	4	9	9	2	0	0	87	7.44	4								
11	Job Security	5	5	3	1	4	5	5	4	4	4	5	1	5	5	5	5	4	5	4	5	11	6	1	0	2	84	9.09	2								
12	A Feeling of Being Involved	4	5	4	4	4	4	5	4	4	3	4	5	5	4	3	4	3	4	3	5	5	11	4	0	0	81	4.13	8								
13	Gratitude for Job well done	5	4	3	3	4	3	5	5	4	4	4	5	4	4	3	5	4	3	5	4	6	9	5	0	0	81	4.96	7								
14	Support for learning and training	5	5	5	3	5	5	4	4	2	4	4	4	4	4	5	4	4	4	5	7	11	1	1	0	84	5.79	6									
15	Opportunity for honest feedback	5	5	5	4	4	4	5	5	5	4	4	5	4	4	5	5	4	3	3	5	10	8	2	0	0	88	8.26	3								
16	Equal treatment of employees	5	5	4	5	5	5	4	5	4	5	4	5	5	5	4	5	5	4	4	5	13	7	0	0	0	93	10.74	1								
17	Rewards for achievements	5	3	5	4	4	4	5	4	2	5	4	5	5	5	3	5	3	4	3	4	8	7	4	1	0	82	6.61	5								
18	Good Communication Skills	5	3	4	3	2	3	4	5	1	4	5	5	4	4	3	5	3	4	4	4	5	8	5	1	1	75	4.13	8								
19	Supervisor's help with personal problems	1	1	3	1	4	4	3	5	3	4	3	2	3	4	4	4	4	3	5	4	2	8	6	1	3	65	1.65	10								
20	Clear communication system	4	4	4	3	3	5	4	4	1	4	4	4	4	4	5	5	3	4	5	5	5	11	3	0	1	79	4.13	8								
TOTAL																					121	174	79	17	9	1581	100										

Ranks Assigned to Attributes by IV Year Computer Science Engineering students in Summary Sheet-1 are shown in figure 1



S.No	ATTRIBUTES	RANK
1	Equal treatment of employees	1
2	Job Security	2
3	Opportunity for honest feedback	3

Figure 1: Ranks Assigned to Attributes by IV Year Computer Science Engineering students for Summary Sheet-1

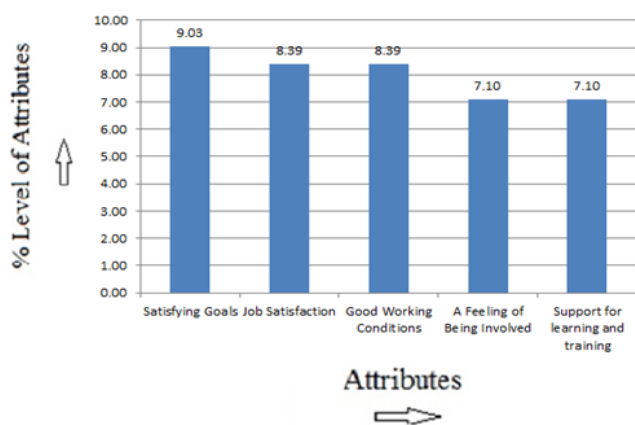
The students of the department of Computer Science Engineering students have selected **Equal treatment of employees** as **First Rank**. Job Security is selected as second rank. Opportunity for honest feedback is selected as third rank.

Questionnaires were issued to Final year Mechatronics Engineering students of Maharaja Engineering College. The received data along with the rank assessment summary is given below in table 2.

Table 2: Rank Assessment Summary Sheet-2

Title of The Project A Study on the Effect of Motivation among Engineering College Students for their Career Growth		Department MTS																				Class: IV year Page Number :1								
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	5	5	4	5	2	4	4	5	4	4	3	5	4	4	4	4	4	4	4	4	6	12	1	1	0	83	3.87	8
2	Job Satisfaction	5	5	3	5	4	3	4	4	4	4	5	5	5	5	5	5	5	5	5	5	13	5	2	0	0	91	8.39	2	
3	Team Spirit	4	4	4	4	3	4	3	3	4	5	5	5	4	5	4	3	4	5	4	4	5	11	4	0	0	81	3.23	9	
4	Promotions/ Expectation	4	5	5	4	4	5	4	4	5	5	3	5	4	5	3	4	5	5	5	3	10	7	3	0	0	87	6.45	4	
5	Management Styles	4	5	3	5	2	2	5	4	3	4	4	4	5	5	3	3	5	3	3	2	6	5	6	3	0	74	3.87	8	
6	Recognition	4	4	4	5	4	3	4	4	3	5	3	4	3	4	4	5	5	5	4	5	6	10	4	0	0	82	3.87	8	
7	Satisfying Goals	5	5	4	4	5	5	4	5	5	5	5	5	5	4	4	5	5	5	4	5	14	6	0	0	0	94	9.03	1	
8	Possibilities of Layoffs	4	1	1	2	1	2	2	2	1	1	1	1	3	4	3	2	1	2	2	1	0	2	2	7	9	37	0.00	12	
9	Working Hours	4	3	5	4	2	3	4	3	4	3	3	1	4	3	4	3	3	4	4	5	2	8	8	1	1	69	1.29	11	
10	Good Working Conditions	5	4	5	5	5	4	4	4	5	5	3	5	5	4	5	5	4	5	5	5	13	6	1	0	0	92	8.39	2	
11	Job Security	5	5	5	5	3	4	5	3	4	5	4	2	5	5	4	4	4	5	4	3	9	7	3	1	0	84	5.81	5	
12	A Feeling of Being Involved	5	4	3	4	5	5	5	4	5	4	5	5	5	4	4	5	4	4	5	5	11	8	1	0	0	90	7.10	3	
13	Gratitude for Job well done	5	5	3	4	4	4	4	4	3	5	1	5	3	5	4	3	4	4	4	5	6	9	4	0	1	79	3.87	8	
14	Support for learning and training	5	4	4	4	5	3	4	5	4	5	4	5	5	5	4	5	5	5	4	5	11	8	1	0	0	90	7.10	3	
15	Opportunity for honest feedback	4	5	4	5	5	3	3	4	5	5	3	5	4	4	5	5	5	5	4	4	10	7	3	0	0	87	6.45	4	
16	Equal treatment of employees	4	3	4	4	4	2	4	4	4	5	1	5	3	3	5	5	4	5	5	3	6	8	4	1	1	77	3.87	8	
17	Rewards for achievements	4	3	5	5	3	5	5	5	5	4	4	3	3	5	3	4	3	4	3	5	8	5	7	0	0	81	5.16	6	
18	Good Communication Skills	5	4	4	5	4	4	5	4	5	5	5	5	4	4	4	4	4	5	3	5	9	10	1	0	0	88	5.81	5	
19	Supervisor's help with personal problems	5	1	1	4	3	3	1	3	2	5	1	3	3	4	3	3	3	2	5	3	3	2	9	2	4	58	1.94	10	
20	Clear communication system	5	4	4	3	4	4	3	4	5	5	3	5	4	3	5	4	4	5	4	5	7	9	4	0	0	83	4.52	7	
TOTAL																						155	145	68	16	16	1607	100		

Ranks Assigned to Attributes by IV Year Mechatronics Engineering students in Summary Sheet-2 are shown in fig 2



S.No	ATTRIBUTES	RANK
1	Satisfying Goals	1
2	Job Satisfaction	2
3	Good Working Conditions	2
4	A Feeling of Being involved	3
5	Support for learning and training	3

Figure 2: Ranks Assigned to Attributes by IV Year Mechatronics Engineering Students for Summary Sheet-2

The students of the department of Mechatronics Engineering students have selected Satisfying Goals as First Rank. Job Satisfaction and Good Working Conditions are selected as second rank. A feeling of being involved and support for learning & training are selected as third rank.

Table 3: Combined Ranks Assigned to Attributes by Computer Science Engineering and Mechatronics Engineering Students

S. No	Attributes	Rank Assigned
1	Equal Treatment of Employees	1
2	Job Security	2
3	Satisfying Goals	3

The students of the departments of Computer Science Engineering and Mechatronics Engineering have combined and selected as Equal treatment of Employees as First Rank. Job Security is selected as second rank. Satisfying Goals is selected as third rank.

4. Conclusions

The students of the departments of Computer Science Engineering and Mechatronics Engineering have combined and selected as Equal treatment of Employees as First Rank. Job Security is selected as second rank. Satisfying Goals is selected as third rank. It is concluded that the long-term survival of any organizations depends largely on the motivation of its employees. Therefore organizations should be willing to continuously and on regular basis, undertake employee's 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 organization. Finally, the results of this study and those presented and discussed in this article could be useful in helping organizations determine what motivates employees today and in the foreseeable future.

References

[1] Samira Al Jasmi "A Study on Employees work Motivation and its effect on their performance and business Productivity". Article report submitted to The British University in Dubai, Dubai.March.2012.

[2] Keli Burton "A Study of motivation: How to get your employees moving". Article report submitted to SPEA Honors Thesis, Indiana University, United States. May2012.

[3] Peter Ebong Ajang "Assessing the role of work Motivation on Employee Performance" Article Report submitted to Umeå School of Business and Economics, Sweden. June.2007.

[4] Saida Mohamed "Learning Organization and employee motivation: A case study of Equity Bank, Kenya". Article Report Submitted to School of business, University of Nairobi, Kenya. Nov.2015.

[5] Carolina Mikander "The impact of a reward system on employee motivation in motonet-Espoo". Article report submitted to International Business, Arcada, Finland. May 2010.

[6] M. Sivakumar (2013) "Organizational Behaviour" A.R. Publications Chennai, pp.6.1-6.26.

[7] S. Shajahanan Linu Shajahan (2010) "Organization Behaviour" New Age International (P) Limited, Publishers, NewDelhi, pp.90-91.

[8] Rima Ghose Chowdhury "A Study on the Impact of Leadership Styles on Employee Motivation and Commitment: An Empirical Study of Selected Organizations in Corporate Sector" Ph.D. Dissertion submitted to the Padmashree Dr D. Patil University, Navi Mumbai. Nov. 2014.

[9] Nadja Zabouj and Nicole Antoniadés "A Study about the use of reward Systems and Employee Motivation in a call Centre". Project Report Submitted to University of Gothenburg School of Business, Economics and law, Sweden.June.2015.

[10] Nchorbuno Dominic Abonam "The role of motivation on employee performance in the public sector: A case study of the university for development studies-WA campus". Project report submitted to Kwame Nkrumah University of Sciences and Technology, University in Kumasi, Ghana. June 2011.

[11] Elizabeth Boye Kuranchie-Mensah and Kwesi Amponsah-Tawiah, "Employee Motivation and work Performance: A Comparative study of Mining Companies in Ghana", Journal of industrial Engineering and Management, Vol. 9(2), Dec. 2016, pp. 255-309.

[12] Caroline Njambi Gichure "Factors influencing employee motivation and its impact on employee

performance: A case of AMREF Health Africa in Kenya”. Project report submitted to Chandaria School of business, United States International University, Africa. Summer 2014.

- [13] Muhammad Sadam Bin Tayyab, Muhammad Kamran and Nawab M. Ahmed “ A Study of the factors determining motivational level of employees working in public sector of Bahawalpur (Punjab, Pakistan)”, International journal of human resource studies, Vol.4, No.3, 2014, pp.19-34.
- [14] Sudatta Banerjee and Payal Mehta, “Determining the antecedents of job stress and their impact on job performance: A study among faculty members”, IUP Journal of organizational behaviour, Vol. XV, No.2, 2016, pp.7-24

