

**“ORGANIZATION CULTURE IN ENGINEERING EDUCATION WITH  
SPECIAL REFERENCE TO RAJASTHAN”**

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**ABSTRACT**

*In India engineering is one of the preferred choices for good students at the 10+2 level. The competition for the top institutions is intense with students spending a lot of time and money in coaching classes to get the added advantage for the competitive entrance tests. This demand for engineering has resulted in a mushrooming of a large number of engineering colleges in the country. Despite this, the industry complains of an absence of trained quality engineers*

*Engineering is amongst the few professions where creativity and ingenuity knows no bounds. Moreover if you are the one among those who look for challenging opportunities than probably, engineering is the most ideal profession to opt for. As an aerospace engineer you have the chance of developing cryogenics technology badly needed for the country to make advances in the space research, as a Civil Engineer you have the opportunity of developing earth quake resistant houses and as an electrical engineer the challenge lies in developing superconductors. The list is endless.*

*This research throws light on organization culture and its impact on engineering education of Rajasthan employee's affectivity and efficiency. It analyses the importance of healthy organization culture, improvement of employees and organizational efficiency. The research paper proposes various ways of building an innovative organization culture and importance of quality of work life. The researcher has done a critical study of the impact of organization culture on faculty members of selected engineering institution of Rajasthan. Professors, Readers and Lecturers working with*

*selected engineering colleges of Rajasthan have been surveyed and their working condition, organization culture and satisfaction etc. has been deliberated. The purpose of research is to discover answers to the questions through the application of scientific procedures.*

### **KEYWORDS**

Correlation & Regression Analysis, Efficiency, Leadership Style, Organizational Culture, Work Satisfaction.

### **INTRODUCTION**

The conceptualization of culture within the context of an organization is primarily adapted from the field of anthropology and sociology. Culture has typically been defined as the traditional ideas and values of a group of people. In other words, a group of people will develop a system of shared values that guides the activities of its members. S. A. Sackmann(1997) identifies three approaches as using a holistic perspective or a cognitive perspective, both of which describe the internal state of culture members. Not all cultures agree on what is good, what is normal, and how things “should be done.”

According to Kroeber and Kluckhohn (1952), “Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment in artifacts. The essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their Artifacts and social Institutions Values, beliefs and assumptions Behavior of people attached values. Culture systems may, on the one hand, be considered as products of action, and on the other, as conditioning elements of further action.” The Indian perspective of culture given by Sinha (2000) suggests, “Culture consists of totality of assumptions, beliefs, values, social systems and institutions, physical artifacts and behavior of people, reflecting their desire to maintain continuity as well as to adapt to external demands.”

The culture is a hidden but unifying force that provides meaning and direction to a system of shared meanings, or systems of beliefs and values that ultimately shapes employee behavior.

Schein (1985, 1992) defined organizational culture as a pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with its problem of external adaptation and internal integration. These values are then taught to new members in the organization as the correct way to think and feel in relation to those problems. For Schein (1999), culture is the sum of all the shared, taken for granted assumptions that a group has learnt throughout its history. Also, culture is determined to be the residue of success. Culture is also the structure and control system to generate behavioral standards.

A more formal definition of culture that the researcher identifies with is that “organizational culture is a pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be taught to new members as the correct way to perceive, think and feel in relation to those problems” (Schein, 2004).

Organization culture can be a set of key values, assumptions, understandings and norms that is shared by members of an organization. Organization values are fundamental beliefs that an organization considers being important, that are relatively stable over time, and they have an impact on employee’s behaviors and attitudes. Organization Norms are shared standards that define what behaviors are acceptable and desirable within organization. Shared assumptions are about how things are done in an organization. Understandings are coping with internal or external problems uniformly.

### **Engineering Education in Rajasthan**

Engineering education is among the key enablers of growth for transforming India’s economy. The quality of teaching and research in this sphere will play a critical role in the emergence of our country as a global knowledge leader. It will also provide vital inputs for enhancing productivity across sectors. In the past two decades, we have seen an eight-fold increase in the number of institutions imparting engineering education at the undergraduate level. Yet, there are some fundamental issues that need to be addressed.

A glaring regional imbalance has emerged in the availability of engineering education. Two-thirds of the engineering institutions are located in four southern states, plus Maharashtra, even though they account for less than one-third of the population. There is much less access for the youth in under-provided states, particularly because only 15 per cent of the total seats are available for those who come from outside the state. It would be worthwhile to study whether there are any cultural or region-specific factors that influence the choice of engineering as a career in some states and not elsewhere.

This could help make the spread of such colleges more even nationwide. Several recent studies have flagged the problem of unemployables of engineering graduates, largely because curriculum and syllabi are not quite compatible with industry requirements. Further, the standards of a very large proportion of institutions at the bottom of the pyramid have also been found to be abysmal. Even good institutions are plagued by deficiency of quality students at post-graduate and research level. The problems are complex and deep rooted. The situation calls for a new paradigm in regulation, accreditation, governance and faculty development.

Engineering as a career option has to be finalized at an age when the student opting for is not very mature. Most of the times it's the parents choice, who undoubtedly think in the best interest of their ward or the students imitating the seniors. Not necessary, those furnishing the advice are engineers or have the complete idea of engineering as a profession. It's seldom that the one opting for the career is completely aware of Engineering as a profession

Engineering is amongst the few professions where creativity and ingenuity knows no bounds. Moreover if you are the one among those who look for challenging opportunities than probably, engineering is the most ideal profession to opt for. As an aerospace engineer you have the chance of developing cryogenics technology badly needed for the country to make advances in the space research, as a Civil Engineer you have the opportunity of developing earth quake resistant houses and as an electrical engineer the challenge lies in developing

superconductors. The list is endless.

### **OBJECTIVE OF STUDY**

The purpose of research is to discover answers to the questions through the application of scientific procedures. The main aim of research is to find out the truth which is hidden and which has not being discovered yet. Though each research study has its own specific purpose, then also research objectives can be categorized into following groups:

- To gain familiarity with a phenomenon or to achieve new insights into it.
- To portray accurately the characteristics of a particular individual situation or a group.
- To determine the frequency with which something occurs or with which it is associated with something else.
- To test a hypothesis of a casual relationship between variables.

Therefore the objectives of proposed study are on the basis of portraying accurately the characteristic of faculty member's of selected engineering colleges of Rajasthan to know their organization culture. The objectives are as follows:

1. To study Engineering education in Rajasthan
2. To study organization culture for faculty members of engineering institutions of Rajasthan.
3. To determine major factors contributing to organization culture.
4. To suggest improvements in the organization culture of faculty members of engineering institutions of Rajasthan

### **HYPOTHESIS OF STUDY**

Hypothesis is usually considered as the principal instrument in research. Its main function is to suggest new experiments and observation. In fact, many experiments are carried out with the deliberate objective of testing hypothesis. Testing hypothesis enables researcher to make

probability statements about population (Probability Distribution) or its parameter(s). The hypothesis may not be proved absolutely, but in practice it is accepted if it has withstood a critical testing. Hypothesis means mere assumption or some supposition to be proved or disproved. Hypothesis can even be defined as a propositions set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjecture to guide some investigation or research, or it can also be accepted as highly probable in the light of established facts.

### **Hypotheses**

Leadership style is the major determinant of organization culture

### **METHODOLOGY**

The current study aims at measuring the organization culture and its effect on Professors and Lecturer, and offering recommendations for improving the same and thus deductive methodology would be the appropriate choice as theory obtained from published works is tested empirically during the research. The inductive methodology is not chosen for this study because generation of new theory is not the purpose of this study.

Various methodologies like graphs, matrices, comparison tables for analyses of responses of various questions is being used after questionnaire survey. The research is under descriptive study which includes large population studies in which data on lots of different variables is being collected.

The variables like leadership skills, power, decision making authority, suggestions in strategy making, value of accountability, employee –employer relationship, involvement and commitment, personal responsibility, trust, sharing of information and factors of OCTAPACE is taken into consideration to analyze the data collected during research work.

### **SAMPLING METHOD**

Data is collected from the academicians of most of the Engineering and Management Institutions of Rajasthan, on the basis of questionnaire prepared with the help of instruments like Organizational Climate Survey and Organization Diagnosis & Instruments for HRD and OD of Late Professor Udai Pareek published by Tata Mc Graw Hill etc.

Probability and non-probability sampling are the two methods that are used for social researches. Probability sampling is "a sampling technique in which every member of the population has a known, non-zero probability of selection." (White & McCain 2000). Whereas in non-probability sampling units of the sample are selected on the basis of personal judgment or convenience. Probability of any particular member chosen is unknown within non-probability sampling. Since all the selected Management Institutions are felt behaving in a similar manner because they all are governed by the common Government body AICTE (All India Council of Technical Education). Thus need, to apply a certain sampling technique for the collection of data, was not considered so important. But the criteria of random selection of respondent, was considered in different manner. The questionnaire was distributed to all the existing teaching staff and a dead line is fixed to receive the responses. Those entire respondents, who responded within the deadline, have been considered as part of the study. Due to the limitation of resources, time and the availability of coverage area, convenience sampling have been considered a better alternative to be used for collecting information from the respondents. It was earlier decided that a sample of 300 will be considered as an appropriate sample for the study. But unfortunately some of the respondent's response was contradictory so they were rejected from the sample and hence 200 faculty members including the streams of engineering institutions responded within the deadline.

Therefore, the sample of size 200 academicians was considered in this study consisting of Professors, Associate Professors, Assistant Professors and other teaching staff of various AICTE approved institutions of Rajasthan. It is understandable that the sample represents the population as the number of actual faculty members working in these institutions. The

institutes which were selected for the data collections are performing well in Rajasthan are mentioned in Appendix A.

## **SCALE**

The study has used a variety of questions to find out the complete information about the topic under research. Apart from dichotomous and multiple-choice answers of the questions, interviews which include statements of the respondents required to rate on the basis of different scales like the likert scale, rating scale etc are also being used.

## **SCOPE OF STUDY**

Organization Culture plays an important role to identify and examine the internal environment of any organization. Organization Culture tells information of the employees working. Organization culture is today's hot issue to be discussed by various famous companies to increase the productivity of employees because work culture is the major player which puts impact on the working style and art of employees.

Organization culture performs a number of functions in an organization.

- It has a boundary defining role i.e. it creates of distinctions between one organization and others.
- It conveys a sense of identity for organization member.
- It facilitates the generation of commitment to something larger than ones individual self interest.
- It enhances the stability of the social system.
- It lays the stability impact on attitude and behavior.

The complete knowledge of these facts about organization culture and its impact on employees is given the effectiveness and efficiency of both organization; and employees which can list them among the top organization and employees which can list among top organization. So this study holds importance in today's scenario because work culture is directly related with the satisfaction of employees and productivity of employee.



### **LIMITATIONS OF STUDY**

1. The collection of data was prolonged because it was lingered by respondents to an extent.
2. Respondents were less cooperative and were more conscious for getting their identity disclosed.
3. Respondents were hesitating to respond openly to the questionnaire.
4. Respondents may be biased and may not be sincerely responding to the questionnaire survey.

### **HYPOTHESIS TESTING**

**H<sub>1</sub>**: The Null Hypothesis for the research to be carried out was

- Leadership style is not the major determinant of organization culture.(H<sub>o1</sub>)

And the Alternate Hypothesis for the research to be carried out was:

- Leadership style is the major determinant of organization culture.(H<sub>a1</sub>)

*Table 1: Showing frequency for number of respondents for various parameters of organization culture under the category of Engineering Colleges*

Frequency	PO	FS	T	R	IC	LT	P	SI	LS
1-2	12	4	10	11	7	15	13	11	1
2-3	58	98	94	91	64	77	85	80	115
3-4	67	86	91	87	115	98	88	98	94
4-5	73	19	16	20	24	20	23	19	0

*\*: The Incomplete responses, with respect to a predictor variable, have not been considered in the analysis*

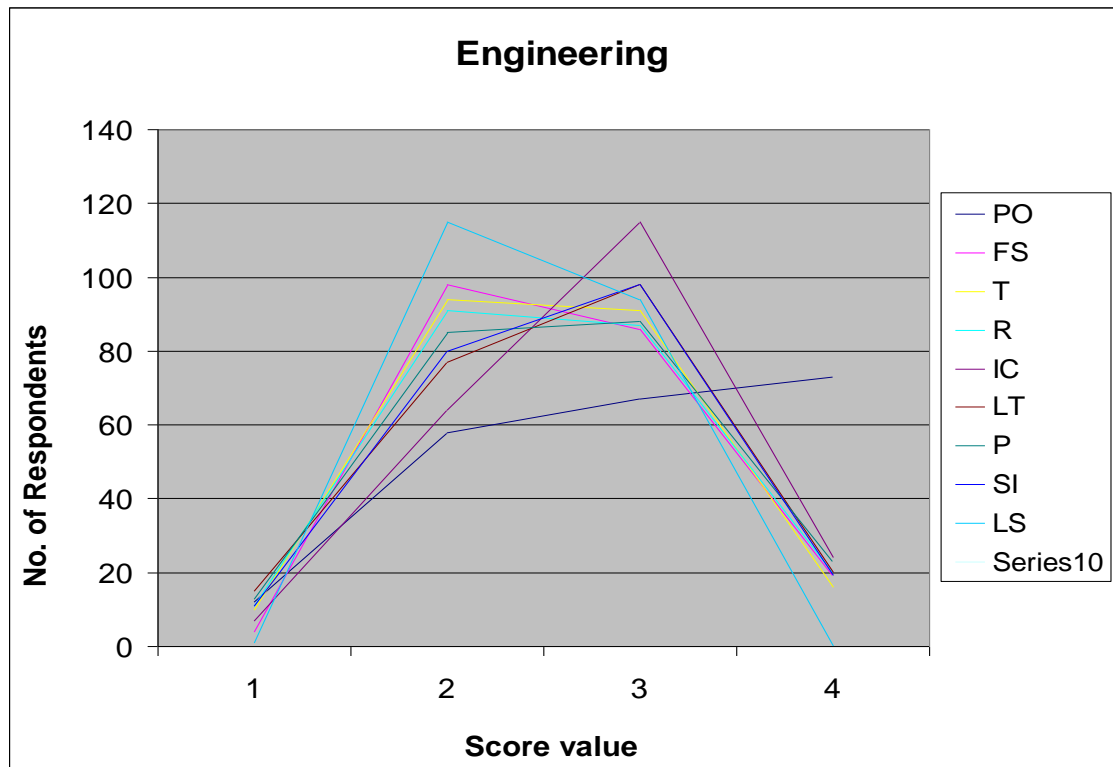


Figure 1: Graph showing plotting of number of respondents and frequency of parameters of organization culture under the category of engineering colleges

Where

- PO : Power
- FS : Focus on Strategy
- T : Transparency
- R : Responsibility
- IC : Involvement of Commitment
- LT : Level of Trust
- P : Partnering
- S : Sharing of relevant Information
- LS : Leadership Style

## CONCLUSION

The major objectives kept in mind by the researcher while conducting the research was to gain insights about organization culture with special reference to the faculty members of various engineering and management institutions. The aim was also to compare the

organization culture of faculty members and find the influence of it on their working efficiency. On the basis of stacked graph shown in *figure 1* plotted on the basis of *table 1* between Organization culture and Leadership style we can interpret that Leadership style and involvement of commitment are the major determinants of organization culture. It can be concluded that leadership style and organization culture along with some other parameters are dependent variables.

## **SUGGESTIONS**

There were some suggestions given by faculty members to improve the organization culture in long course of time. These are as follows:

- The vision, mission, and outcomes should be clear and well defined to have better organization culture.
- Delegation of decision making authority should be done to get the things done accurately and in time this can also form a support to improve organization culture.
- There should collaboration of individual and organizational goals so that staff members can work in harmony to improve the work conditions of the colleges as well as their own.
- Suggestions of employees should be welcomed and implemented at its earliest to make the work environment outstanding,
- There should be monthly interaction among staff members to discuss on various issues and future planning which can be good for the institution as well as bring the staff together building strong relationship among the members and the management.
- Social gathering is the best medicine for any to hold in a strong bond so social staff gathering can show the way to good and strong relationship with each other which is very necessary for maintaining good work environment and organization culture.
- Well defined job objectives with indicators can always guide to better organization culture and satisfied staff members so it should often be performed in management institutions.

- Appraisal is the key for success of any operation so constant monitoring and feedback system should be sustained in the institutions to maintain excellent organization culture. As on basis of appraisal the problem areas can be identified and lacunae's can be eradicated by group discussions, but appraisal should be always handled sophisticatedly.
- There should be proper distribution of workload and non performance of assigned duties should be taken strictly into notification without any biasness.
- Remuneration system should be improved to attract competent and qualified people in education sector.

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## **Websites**

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2. <http://www.organizationalculturecenter.com>
3. <http://www.rajasthaneducation.net/facts/Educational Fact & Figures of Rajasthan>
4. <http://www.rajasthaneducation.net/engineering/>
5. <http://www.rtuadmissions.nic.in/htmFile/list%20of%20institutes%20web.htm>

#### **APPENDIX A**

1. Compucom Institute of Information Technology & Management, Jaipur.
2. Apex Institute of management & Science, Jaipur
3. Deepshikha College of Technical Education, Jaipur
4. Jaipur Engineering College, Jaipur
5. Yagyavalkya Institute of Technology, Jaipur
6. Arya College of Engineering & Information Technology, Jaipur
7. Gyan Vihar School of Engineering and Technology, Jaipur
8. Maharshi Arvind institute of Engineering & Technology, Jaipur
9. Seedling Academy of Design, Technology & Management, Jaipur
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15. Swami Keshavanand Institute of Technology Management & Gramothan, Jaipur.
16. Baldev Ram Mirdha Institute of Technology, Jaipur
17. Regional Colleges for Education Research & Technology, Jaipur
18. Modi Institute of Management & Technology, Kota
19. Jodhpur Institute of Engineering & Technology, Jodhpur
20. Engineering College Ajmer, Ajmer
21. Sobhasaria Engineering College, Sikar
22. Mody Institute of Technology and Science, Laxmangarh
23. Laxmi Devi Institute of Engineering and Technology, Alwar