

## **EFFECTIVENESS OF CHANGE MANAGEMENT ON BEHAVIOUR OF TEACHING FACULTY AT ENGINEERING COLLEGE**

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### **ABSTRACT**

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Change is inevitable for any individual, organisation and society. Behaviour is the reaction, which an individual shows towards his situation at different period. Many parameters was identified with the international and national reviews. The researcher used both descriptive and analytical methods in the survey. A pilot study was conducted to validate the questionnaire and to confirm the feasibility of the study. The main objective of the study was to know the general behavior of engineering teaching faculty at the college level. Primary and Secondary Data are used in this study. 424 questionnaires were collected with full response. Convenience Sampling is adapted for the Study. This study is teaching about faculty of 20 Engineering Colleges. The general behaviour of the engineering teaching faculty was identified with the help of clusters analysis. Getting the organisation to accept the change, understand the elements of change and then properly execute change is a herculean task. Managing change within the organisation will help one to implement change with better results in the long run.

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### **INTRODUCTION**

#### **Conceptual Framework Change - A Vision**

Change is inevitable for any individual, organisation and society. Change is simple and complex. Change represents the struggle between what is desired and what is the reality? Change is a process pursued for and by the people. Change that leads to innovation is vital, which in turn creates vast development and growth. Change can be in a systematic way; initially, it may look difficult and require interest and more knowledge, but later on, anyone can feel the power of change, and it will be easy and very useful. Change is situation like the new site, the new structure, the new team, the new role or the new procedure. Change sounds good when an efficient leader handles it in a proper and effective way of making changes; it requires whole-hearted support from the management side, i.e., morally, financially

or technologically.

#### **Management**

Management is the process of reaching organisational goals by working with and through people and other organisational resources as Mary Parker Follet says "Management is an art of getting things done through the efforts of other people". Louis Allen opines, "Management is what a manager does".

#### **Change management**

Is a systematic approach to dealing with change both from the perspective of an organization and the individual? A somewhat ambiguous term, change management has at least three different aspects, including: adapting to change, controlling change, and effecting change.

### Behaviour of teaching faculty

Behaviour is the manner how a human being carries oneself, or behaviour is what one does, especially in response to outside stimuli including physical action and emotional process. Behaviour is the reaction, which an individual shows towards his situation at different period. One of the most important differences between behavior and attitude is that attitude is internal whereas behavior is external in sense. Experts say that that attitude is what you think whereas behavior is what you do. Hence attitude has all the power to shape the behavior of a person. It is indeed true that a person with the right attitude would be endowed with the right behavior too. Attitude is all about the opinion somebody has about something in life. Behavior is about how one responds to the impulses and the pulls of the environment. Teaching faculty' general behaviour refers to their methods of discipline, teaching methods and their characters. It is most important to know the particular manner in which the faculties behave in the workplace.

### REVIEW OF LITERATURE

An extensive review of literature relating to change management was undertaken. Through these reviews, many parameters relating to change management were identified. In addition, it was also identified that change management has a direct impact on the behaviour of teaching faculty which ultimately leads to their performance.

In this context, one can recall (Stroh, 2004) the study reveals that the employees are directly influenced by their participation in the communication process, and their attitudes and loyalty subsequently influence the way they treat customers and clients.

This study proposed by (Phillips, 2005) the institutional factors have an impact on adoption of new technologies in higher education, before concluding that the major factors affecting adoption are human, and these can only be addressed through effective leadership and change management.

(Gilley, *et al.*, 2009) explore the behaviors associated with leadership effectiveness in driving change. This research work identifies change effectiveness skills, while isolating the specific leader behavior which is deemed most valuable to implementing change that is motivation and communication.

(Flores, 2010) focuses on the number of issues to be considered in the change process: the quality of teachers' participation, motivation, morale and commitment; the need for a climate of trust

and reliability in the appraisal process; the need to focus on the key aspects of teaching, namely through classroom observation; the creation and clarification of the criteria for the appraisal process; the simplification of procedures; the need to build upon school and teachers', experiences on appraisal developed over the last few years.

The study had tried to investigate effective change communication in the workplace Amy Lynn (Harp, 2011). It was concluded that on the individual level, employees evaluated effective change communication through a behavior, trait, and or knowledge.

It is expected that leaders' demonstration of supportive behavior towards their followers may influence the sense of duty of the follower's to remain committed to the organisation Anis, *et al.*, (2011).

According to (Sprenger, 2011) the results from the quantitative survey show that with stress, most teachers will confront the situation, change their behavior, or get emotional.

According to (Hamdi and Rajablu, 2012) it was found that the level of affective commitment is different among nursing staff and depends on the quality of the leader and member communication and leaders consideration.

According to (Larbi-Apau and Wayne, 2012) the teaching staff in the universities has relatively more positive attitudes toward computer technology and ICT.

(Gelaidan and Ahmad, 2012) in their study the finding of the study shows that organisational culture plays an important role in moderating the relationship between leadership style either transformational or transactional and normative commitment to change.

Behaviour is a response, which an individual shows to his environment at different times. "Behaviour is conduct that carries oneself or behaviour is what we do, especially in response to outside stimuli".

(Beduz's, 2012) it was found that the intention to perform anxiety assessments on patients was greater for nurses who (a) perceived that they had control over performing anxiety assessments, (b) had a positive attitude toward providing such assessments, and (c) perceived their work context to be positive.

In his research, (Ming, 2012) it was concluded that the teacher-centered and student-centered teacher behavior did make a difference in student thinking style change and learning achievement.

An attempt was made by (Unal and Unal, 2012) the

findings of the study demonstrated that experienced teachers are more likely to prefer to be in control of their classrooms than less experienced teachers while interacting with students.

## RESEARCH METHODOLOGY

The researcher used both descriptive and analytical methods in the survey. The questionnaire was checked for the reliability and validity by experts' and practitioners.

### Needs and importance of the study

The main goal of the study is to explore the effectiveness of the change management factors on behaviour of teaching faculty at the Engineering College level in Chennai.

### Statement of the problem

The main research problem in this study is to identify the influence of change management practices over behaviour of teaching faculty.

### Pilot study

A pilot study was conducted to validate the questionnaire and to confirm the feasibility of the study. Cronbach's Alpha Criterion was applied to test the reliability. The quality of the questionnaire was ascertained and the test showed high reliability at 78.8%.

### Objectives of the study

1. To study the profile of the teaching faculty and their institutions.
2. To know the general behavior of teaching faculty at the college level.
3. To suggest measures for motivating the change management on behaviour of teaching faculty at the college level in Chennai.

### Hypothesis of the study

**H<sub>01</sub>:** There is no significant influence of change management on the behavior of teaching faculty.

### Collection of data

Primary and Secondary Data are used in this study.

**Study area:** The survey is conducted among Engineering Colleges in Chennai.

**Sampling size:** 424 questionnaires were collected with full response.

**Research design:** Descriptive and Analysis research design is used in this study.

**Type of sampling technique:** Convenience Sampling is adapted for the Study.

**Sampling unit:** This study is teaching about faculty of Engineering Colleges.

**Selection of colleges:** The following table presents the number of Colleges (Table 1).

**Questionnaire design:** The pre-test enabled the selection of Engineering Colleges and the responses of faculty were obtained through a well-framed questionnaire.

- 5-Strongly Agree. 4-Agree. 3-Neutral.
- 2-Disagree. 1-Strongly Disagree.

Reliability was assessed based on Cronbach Alpha as presented in Table 2 below:

## STATISTICAL ANALYSIS

All data analysis was conducted using Statistical Package for Social Sciences V-15 (SPSS). The data were screened in order to obtain the variance between various factors of change management.

- 1) Simple Percentage Analysis.
- 2) Cluster Analysis.

### Analysis and interpretation

**Cluster analysis:** Analysis pertaining to the objective is to know the general behavior of teaching faculty at the college level, Chennai.

**Classification of teaching faculty on the basis of the perception of change management and behaviour**

**Table 1.** Details of colleges

Nature of the College	No. of Colleges in Chennai
Engineering colleges	15

**Table 2.** Cronbach's alpha table

Measure	Items	Range	Factors	Variance	Alpha
Technology	10	1-5	2	87.636	0.910
Adaptability	10	1-5	2	87.618	0.923
Knowledge Upgradation	10	1-5	2	83.434	0.919
Leadership Qualities	10	1-5	2	87.476	0.956
Behaviour of Teachers	16	1-5	3	87.549	0.913

Factor analysis by the principal component method identified several factors of communication, technology, organisational culture, adaptability, knowledge upgradation, leadership qualities, compensation and commitment. These factors act as a basis to classify the teaching faculty's perception.

#### A. Classification of teaching faculty on the basis of factors of communication

Factor Analysis derived "Management Transparency" and "Transitional Approach" of communication. The scores of these two factors are considered in the cluster analysis (Table 3).

#### B. Classification of teaching faculty on the basis of factors of technology

Factor Analysis obtained "Global Connectivity" and "Convenient Network" of technology. The scores

of these two factors are considered in the cluster analysis (Table 4).

#### C. Classification of teaching faculty on the basis of factors of organisational culture

Factor Analysis extracted "Benefit Orientation" and "Conducive Relationship" of organisational culture (Table 5).

#### D. Classification of teaching faculty on the basis of factors of adaptability

Factor Analysis derived "Promotional Opportunities" and "Assuming Responsibilities" of adaptability (Table 6).

#### E. Classification of teaching faculty on the basis of factors of knowledge upgradation

Factor Analysis obtained "Multitasking" and "Productivity Enhancement" of knowledge upgradation (Table 7).

**Table 3.** Cluster analysis for communication factors

Factors	Final Cluster Centers for Communication			Number of Cases in each Cluster for Communication
	1	2	3	
Management Transparency	(M)-0.64836	(S)0.56861	(W)-1.45449	Total
Transitional Approach	(W)-1.26982	(M)0.31871	(S)1.06599	
Cluster Frequency	110.000	261.000	53.000	424.000
Cluster %	25.94%	61.56%	12.50%	100%

**Table 4.** Cluster analysis for technology factors

Factors	Final Cluster Centers for Technology			Number of Cases in each Cluster for Technology
	1	2	3	
Global Connectivity	(W)-1.43133	(M)0.22443	(S)0.75568	Total
Convenient Network	(W)-1.40019	(M)0.07918	(S)0.81368	
Cluster Frequency	121.000	105.000	198.000	424.000
Cluster %	28.54%	24.76%	46.70%	100%

**Table 5.** Cluster analysis for organisational culture factors

Factors	Final Cluster Centers for Organisational Culture			Number of Cases in each Cluster for Organisational Culture
	1	2	3	
Benefit Orientation	(W)-1.05	(S)0.65	(M)-0.85	Total
Conducive Relationship	(S)1.45	(M)0.27	(W)-1.12	
Cluster Frequency	51.000	248.000	125.000	424.000
Cluster %	12.03%	58.49%	29.48%	100%

**Table 6.** Cluster analysis for adaptability factors

Factors	Final Cluster Centers for Adaptability			Number of Cases in each Cluster for Adaptability
	1	2	3	
Promotional Opportunities	(S)1.71464	(W)-1.29463	(M).40238	Total
Assuming Responsibilities	(W)-2.31653	(M)-.70121	(S).44330	
Cluster Frequency	20.000	116.000	288.000	424.000
Cluster %	4.72%	27.36%	67.92%	100%

**F. Classification of teaching faculty on the basis of factors of leadership qualities**

Factor Analysis acquired “Fruitful Guidance” and “Optimistic Abilities” of leadership qualities (Table 8).

**G. Classification of teaching faculty on the basis of factors of compensation**

Factor Analysis derived “Performance Incentives” and “Lucrative Evaluation” of compensation (Table 9).

**H. Classification of teaching faculty on the basis of factors of commitment**

Factor Analysis obtained “Unified Ownership” and “Life Enhancing Goal” of commitment (Table 10).

**I. Classification of teaching faculty on the basis of factors of behaviour of teaching faculty**

Factor Analysis procured “Cerebral Competency”, “Developmental Orientation” and “Contented Approach” of behaviour of teaching faculty (Table 11).

**Table 7.** Cluster analysis for knowledge upgradation factors

Factors	Final Cluster Centers for Knowledge Upgradation			Number of Cases in each Cluster for Knowledge Upgradation
	1	2	3	
Multitasking	(S).49176	(W)-5.26159	(M)-1.02867	Total
Productivity Enhancement	(M).33401	(S)5.28703	(W)-.98921	
Cluster Frequency	298.000	4.000	122.000	424.000
Cluster %	70.28%	0.95%	28.77%	100%

**Table 8.** Cluster analysis for leadership qualities factors

Factors	Final Cluster Centers for Leadership Qualities			Number of Cases in each Cluster for Leadership Qualities
	1	2	3	
Fruitful Guidance	(W)-1.28653	(S).95408	(M).18006	Total
Optimistic Abilities	(W)-.85339	(M)-.71024	(S).79739	
Cluster Frequency	108.000	106.000	424.000	424.000
Cluster %	25.47%	25%	49.53%	100%

**Table 9.** Cluster analysis for compensation factors

Factors	Final Cluster Centers for Compensation			Number of Cases in each Cluster for Compensation
	1	2	3	
Performance Incentives	(W)-1.45267	(S).95853	(M)-.22949	Total
Lucrative Evaluation	(S)1.54163	(W)-.61263	(M).06170	
Cluster Frequency	37.000	120.000	267.000	424.000
Cluster %	8.73%	28.30%	62.97%	100%

**Table 10.** Cluster analysis for commitment factors

Factors	Final Cluster Centers for Commitment			Number of Cases in each Cluster for Commitment
	1	2	3	
Unified Ownership	(S)1.16593	(W)-.10023	(M)-.40408	Total
Life Enhancing Goal	(W)-.67789	(S)1.02162	(M)-.39638	
Cluster Frequency	83.000	135.000	206.000	424.000
Cluster %	19.58%	31.84%	48.58%	100%

**Table 11.** Cluster analysis for behaviour of teaching faculty

Factors	Final Cluster Centers for Behaviour of Teaching Faculty			Number of Cases in each Cluster for Behaviour
	1	2	3	
Cerebral Competency	(S)1.51252	(M).01642	(W)-.45228	Total
Developmental Orientation	(W)-2.23085	(M).22027	(S).09241	
Contented Approach	(M).53812	(W)-.47975	(S).98043	
Cluster Frequency	32.000	275.000	117.000	424.000
Cluster %	7.55%	84.86%	27.59%	100%

## SUMMARY OF FINDINGS

The researcher presents the findings of the research derived from descriptive analysis on the basis of primary data obtained from the various engineering college teachers of Chennai.

### Findings pertaining to the general behavior of teaching faculty at the college level

The general behaviour of the engineering teaching faculty was identified with the help of clusters analysis. It is inferred that 25.94% of teaching faculty are "Mechanical Teachers" who disagree with "transitional approach" and 12.50% are "Meticulous Teachers" who strongly agree with "transitional approach".

It is inferred that 28.54% of teaching faculty are "Acquiescence Explorers" who disagree with "global connectivity" and "convenient network". It is further noted that 46.70% of teaching faculty are "Hooked Up Teachers" who strongly agree with "global connectivity" as well as the "convenient network".

It portrays that 12.03% of the teaching faculty strongly agree with "conductive relationship". Therefore, this cluster can be termed as "Custom Ambassadors". It is further inferred that 29.48% are "Tradition Claimers" who disagree with "conductive relationship".

It is inferred that 4.72% of teaching faculty are "Malleable Teachers" who strongly agree with "promotional opportunities" but disagree with "assuming responsibilities". It is further inferred that 27.36% are "Flexible Definers" who disagree with "promotional opportunities".

It is found that 0.95% are "Comprehensive Progressers" strongly agree with "productivity enhancement" and while it is further revealed that 28.77% are "Scholarly Seekers" who disagree with "productivity enhancement".

Grouping the teaching faculty on the basis of factors of leadership qualities, it is noted that 25.47% of teaching faculty are "Mentor Gazers" who disagree with "optimistic abilities" and it is further inferred that 25% are "Progressive Mentees" who strongly agree with "fruitful guidance".

For classifying teaching faculty on the basis of factors of compensation leads to the fact that the 8.73% of teaching faculty, who strongly agree with "lucrative evaluation" can be termed as "Benefits Emissary" and 28.30% are "Promotion Demanders" who disagree with "lucrative evaluation".

Grouping the teaching faculty on the basis of factors

of commitment, it is known that 19.58% of teaching faculty are "Aspiring Teachers" who strongly agree with "unified ownership" and it is further inferred that 31.84% are "Objective Seekers" who disagree agree with "unified ownership".

It has been determined that 7.55% of the teaching faculty, strongly agree with "cerebral competency", while classifying teaching faculty on the basis of factors of behaviour of teaching faculty. Therefore, this cluster can be termed as "Competent Teachers". It is further inferred that 27.59% of the teaching faculty are termed as "Imbalanced Teachers" who disagree with "cerebral competency".

## CONCLUSION

The excellence of education depends on the nature of professional staff. Engineering faculty have the ability to adapt the pioneering changes by assuming tasks and obtaining promotional opportunities. Compensation is a primary motivator for teaching faculties, which will get reflected on performance also. Faculty members strongly believe that the commitment towards their job and the institutions makes them take ownership and helps them in setting and achieving goals that enhance their lifestyle. Teaching faculty strongly consider that their behaviour helps them to develop their cerebral competencies which aids in forging a development-oriented approach that would result in a contented state. Change management can be a challenge in any educational institution. Getting the organisation to accept the change, understand the elements of change and then properly execute change is a herculean task. Managing change within the organisation will help one to implement change with better results in the long run.

## SCOPE FOR FURTHER RESEARCH

This study is an attempt to examine the effectiveness change management on the behaviour of engineering teaching faculty at the college level, Chennai. The study gives ample scope for further research and a few areas are listed below:

1. Impact of change management on behaviour of teaching faculty in higher educational institutions with special references to medical colleges.
2. A study on the efficacy of change management on leadership qualities and performance of teaching faculty among universities.

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