

ROLE OF E-LEARNING PRACTICES FOR TEACHING FACULTY ON ENHANCING INSTITUTIONAL CLIMATE AT SELF-FINANCE ENGINEERING COLLEGES AT CHENNAI CITY

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ABSTRACT

Being in technological era, we can't avoid use of the technology in education and for the development of teaching faculty. The main objective of this research is to explore the role of role of e-learning practices for teaching faculty on enhancing institutional climate at Self-finance engineering colleges at Chennai city. The survey was conducted among 150 teaching faculty working in various self-finance engineering colleges located in and around Chennai city. This research followed descriptive research design. The researcher gathered primary data required for the research through self-administered questionnaire with four sections namely personal details, e-learning courses details, E-learning practices scale, and institutional climate scale. The teachers who have at least two years of teaching experience and taken at least one e-learning course is considered for the survey. The frequency analysis, descriptive statistics, and Structural equation modeling tools was used for the data analysis. The results of the descriptive statistics related to e-learning practices and institutional climate indicates that the mean scores of all the factors are more than moderate level, and all the hypothetical relationship mentioned in the conceptual model of the research is accepted at 1% level of significance. The standardized regression coefficient of the path between e-learning impact on individual and institutional climate is 0.894, which means that the e-learning practices are having significant positive effect on perception of teaching faculty towards institutional climate. The results of the study proves that the impact created by e-learning resources on the individual has the significant positive effect on the perception of teaching faculty towards the institutional climate of self-finance engineering colleges.

Keywords: e-learning, institutional climate, e-learning system success, self-finance engineering college, Chennai city.

Introduction

The education system in India has very long history and tradition. The history of Indian education has its origins to the ancient ages where they followed the Gurukul system. In Gurukul system the students resided in their guru's (i.e. teacher) house until the guru felt that he has taught all that he could. The guru used to cover variety of subjects which includes sanskrit, vedas, mathematics, metaphysics, defensive arts, etc. The Gurukul system has undergone transformation during the Colonial era when the British set up schools that followed a curriculum confined to subjects such as Mathematics, Science etc. Our traditional education system had more interaction with the nature, whereas the Britishers' education system was more classroom oriented. There was a lot of negative views on present education system and its quality.

The Government of India takes lot of initiatives and reforms in education system of the country. Technology based tools have been introduced in Indian education system in order to improve teaching and learning process. However, the quality of education system can't improve just by changing the curriculum, or by implementation of technology based tools such as smart classrooms, until otherwise teachers upgrade their knowledge in a continuous manner. Even though, the present day students has the access to the lot of information at their fingertips, but teacher guided learning would be more efficient and have lot of learning at short span of time.

The government of India has taken lot of initiatives such as NPTEL(National Programme on Technology Enhanced Learning) courses, Virtual Labs, Spoken tutorial, Spoken tutorial, The consortium for Educational communication, e-Yantra, e-ShodhSindhu, FOSSEE (Free and Open Software in Education), E-Kalpa, Diksha, National Teacher platform (NTP), swayam etc.

Apart from these e-learning resources the teachers are having the option to take online courses from Massive Open Online Courses (MOOC) and Modular Object-Oriented Dynamic Learning Environment (Moodle) through which they can acquire knowledge on various subject topics and advancement in technology. The self-finance engineering educational institutions encourage their faculty to update their knowledge through e-learning courses and digital resources by providing incentives, subsidies, and increments. The efficient teacher is the most important asset of any educational institution who can be the stepping stone of the growth of the educational institution. Institutional Climate of the educational institution depends upon lot of factors such as interpersonal relations, Institutional policy and administration, Salary & perks, autonomy, workload, career advancement, skills development & utilization, etc. The climate of any institution is having impact on the employees' motivation, loyalty, productivity, their performance, etc. Therefore, the main objective of this study is to describe the role of e-learning practices for teaching faculty on enhancing institutional climate at Self-finance engineering colleges at Chennai city

Literature Review

Literatures related to e-learning practices for teaching faculty

Rosenblit (2018), in her article discussed about E-Teaching in Higher Education: An Essential Prerequisite for E-Learning. The discourse on the implementation of the digital technologies in higher education settings focuses mainly on students' learning rather than on professors' teaching. This article starts with briefly explaining why most students, particularly at the undergraduate level, are unable and/or unwilling to study by themselves without expert teachers to guide their knowledge construction, discusses the problematic of digital literacy of teachers, examines the main reasons for the reluctance of many academics to utilize the technologies more fully in their teaching, and concludes by recommending some strategies for incorporating more fully the huge array of the technologies' capabilities in higher education institutions.

Dhilla, and Sarah J. (2017), This review examines research regarding instructors' perceptions of the online teaching experience and explores ways in which university administrators can better support online faculty as their institutional online learning enterprises grow. The following sections examine how the growth in online education has led to increased interest in the experiences of online faculty. An examination of these issues illuminates many of the unacknowledged external factors that have a subtle, but strong influence on online instructors and their experiences in the virtual learning environment.

Bhardwaj et al. (2015), investigated the faculty opinions toward the existing e-learning activities, and to analyze the extent of adopting and integration of e-learning into their traditional teaching methods. A cross sectional study was conducted among faculties of Medicine and Dentistry using pre-tested questionnaires. The data was analyzed by using the statistical package for social science, SPSS, version 16.0. The result of our survey indicates that majority of our faculty (65.4%) held positive opinion towards e-learning. Among the few, who demonstrated reservations, it is attributed to their average level of skills and aptitude in the use of computers that was statistically significant ($p < 0.05$). Our study brings to light the need for formal training as prerequisite to support e-learning that enables smooth transition of the faculty from their traditional teaching methods into blended approach. Our results are anticipated to strengthen the existing e-learning activities of our college and other universities and convincingly adopt e-learning as a viable teaching and learning strategy.

Gokah et al. (2015), E-Learning is becoming a popular delivery method across various universities and colleges in Dubai as the region is experiencing a rapid growth of e-Learning in higher education. Adequate infrastructure, changes in demographic profile, globalization, government initiatives, outsourcing and increasing demand for IT knowledge based jobs are the major factors responsible for e-Learning growth in higher education in Dubai. To highlight the increasing demand for e-Learning based courses in higher education in the region, a study was launched using online questionnaire to measure the satisfaction levels of e-Learners in higher education. From this survey, e-Learners have shown in deed a very high level of understanding concerning the potential and value of e-Learning. Respondents in the study provided a wide variety of information about their viewpoint on course material, faculty's support, grading system and their level of satisfaction of eLearning practices. It is anticipated that the findings of this study will offer opportunities to improve policy and practice of e-Learning in higher education in the region so as to solidify its position as an e-learning hub in the gulf region.

Livingstone (2015), in his paper discussed about teaching faculty's perception about implementing e-learning practices at the University of Guyana. In this modern era, the traditional approach to learning and teaching, which may engage students, does not lend itself to diversity. This study surrounds teaching faculty's perception about

implementing e-learning practices at the University of Guyana. Through a mixed methods approach, teaching faculty from the University was sampled purposively, facilitated by the design and implementation of an online survey, with the objective of finding out their perception about the adoption of e-learning practices at the institution. By means of empirical analysis, the results show that teaching faculty is generally prepared to upgrade their teaching methods and embrace e-learning as a viable alternative. It is recommended that e-learning practices be integrated into the pedagogical practices of the University's teaching faculty.

D'Souza et al. (2014), the objective of the study was to explore the perceptions of use and satisfaction of e-learning (Moodle) among nurse educators in an undergraduate nursing curriculum. A cross-sectional research design was used among 50 nurse educators in undergraduate nursing in February 2010. Ethical approval was sought from the College ethics committee. A validated and reliable self-administered Faculty Satisfaction Survey was used to collect data. Inferential statistics was used to analyze the data. The study showed a rising awareness of the use of e-learning among nurse educators and moderate satisfaction as a blending learning approach. Nurse educators may need to incorporate moodle in the teaching-learning at a self-directed pace, using flexibility and convenience for higher learning approaches.

Julio et al. (2013), the main objectives of the study were stated in the following terms: a) To identify how lecturers who were recognized for their best practices in e-learning made use of such practices; b) To ascertain the technical, didactic and organizational problems that they found when incorporating this teaching learning modality; and c) To analyze the characteristics of the materials that were designed for that purpose. The results allowed a number of conclusions to be drawn, such as positive lecturer and student attitudes towards e-learning in general and towards blended learning in particular. Both the lecturers and the students highlighted their usefulness, the flexibility they allow, and the increase in student involvement and participation. Likewise, the need for both the lecturers and the students to have didactic training was identified, as was the urgent need to set up units and services to assist teaching staff with the use of tools, with the design of materials and with the resources available.

Doherty and McKimm (2010), in their article explored the role of and potential for introducing a range of technologies in clinical teaching, set within the context of a framework of principles for good teaching practice. It looks at how teachers might select and implement technologies appropriately when planning teaching sessions, writing learning objectives and designing learning activities and assessments.

Ruiz et al. (2006), in their article discussed the impact of e-learning in medical education. The authors provide an introduction to e-learning and its role in medical education by outlining key terms, the components of e-learning, the evidence for its effectiveness, faculty development needs for implementation, evaluation strategies for e-learning and its technology, and how e-learning might be considered evidence of academic scholarship.

Literatures related to institutional climate

Senthil kumar et al. (2018), in their study focused on studying the faculty members' perception towards their Institutional Climate and analyzing the impact of institutional climate on selected human factors. Bangalore city was chosen as the study area because large number of arts and science colleges are located here. The sample of 665 faculty members in different disciplines of arts and science programmes was chosen and data was collected in the academic year 2017-18. This study had the participation of 549 teachers and directors from 42 primary and secondary educational establishments of Chile. The complete scale and its subscales permits the understanding that the organizational climate of the educational center is not reduced to the teacher-student relationship, but rather contemplates the dynamic relationships between diverse players, establishing the importance of the joint action between teachers, directives, students, and parents, as well as revealing the importance of some structural organization variables which influence the daily perception of school climate.

Musah et al. (2016), in their research investigated whether organizational climate (OC) predicts academic staff performance at Malaysian higher education institutions (HEIs). The study equally aims at validating the psychometric properties of OC and workforce performance (WFP) constructs. Survey questionnaires were administered to 800 academic staff of eight selected HEIs. The findings reveal a strong predictive causal effect between OC and WFP. These results suggest that establishing a positive OC enhances academic staff performance. Furthermore, the hypothesized model adds new knowledge to the literature of OC, from the Malaysian context, which could be used to predict WFP at the tertiary level. The study concludes by discussing the theoretical and

practical implications of the findings for HEIs. This paper makes a significant contribution to the understanding of how OC could be used as an effective instrument in improving academic staff performance in the context of Malaysian HEIs.

Yashwanth et al. (2016), in their Organizational climate survey aimed to determine the perceived and prevailing climate and its impact on the production. Climate surveys give employees a voice to assist in making desired transitions as smooth as possible. It also serves as a basis for quality improvements. By identifying areas of inefficiency and acting on performance barriers identified by employees of all levels, an organization gains a fresh and different insight into the perspectives of people working for it. Survey analysis identifies areas of employee satisfaction and dissatisfaction to facilitate management in the creation of greater workplace harmony and, therefore, increased productivity. Additionally, climate surveys can set benchmarks for future surveys.

Selamat et al. (2013), in their study examined the influence of organizational climate on teachers' job performance. 37 secondary school teachers in the district of Klang participated in this study. They were selected based on simple random sampling. The study also showed that organizational climate was found to be a significant factor that could affect teachers' job performance. In terms of organizational climate dimensions, one aspect of principal's leadership behavior and teachers' behavior: thrust and hindrance were found to be critical factors in enhancing teachers' job performance. The findings of this study have implications to the role of principal in exercising positive job behavior and do not over emphasize on paper work as it would benefit teachers' classroom instruction and students' academic achievement. Based on the findings, this study also provides recommendations for practices and future research.

Shahram et al. (2013), the main purpose of their study is to review and evaluate the relationship between organizational climates with job satisfaction of educational teachers at high school grade of Ardabil City. The present study has been carried out as correlation-descriptive and scale based type research. The statistical community of the recent study is including the whole high school teachers of Ardabil City; the numbers of these teachers were 82 people based on the statistics and information of education office that the sampling was carried out by total-counting method. The results of correlation coefficient between the dimensions of organizational climate and job satisfaction showed that there is a significant relationship between the target agreement, role agreement and agreement on approaches of organizational climate dimensions with the job and job satisfaction. However, there was no found a significant relationship between the target, role agreements and satisfaction on the approaches of organizational climate dimensions with coworker, optimization and from job satisfaction point of view.

Jianwei Zhang and Yuxin Liu (2010), investigated the characteristics of organizational climate and its effects on organizational variables. Investigation of 419 participants including both managers and employees indicated as follows: educational level, position and length of time working for the current organization had significant main effects on organizational climate; specialty, enterprise character and enterprise size also had significant main effects on organizational climate; organizational climate had significant main effects on human resources management effectiveness such as turnover intention, job satisfaction and work efficacy; organizational climate also had significant main effects on organization effectiveness like staff members' organization commitment and collective identity.

Raza et al. (2010), determined the impact of organizational climate on performance of college teachers. The researcher selected the area of college education as the focus of the study. The study was delimited to all the public sector degree colleges of Punjab. Population of this study consisted of all the principals and teachers working in public sector degree colleges of Punjab and the simple random sampling technique sample was used. The sample consisted of 70 degree colleges, their heads, and five teachers from each sampled college. In order to measure the variables, the research instruments were the questionnaires for principals and teachers. On the basis of analysis, it was concluded that the majority of public college principals opined that open climate was very highly and positively correlated to teacher performance, but paternal and closed climates were negatively correlated to teacher performance. The management style of principals may be improved through in-service training, seminars, workshops and departmental meetings and supervision. Performance of teachers can be increased by promoting open, as well as controlled, climates and avoiding closed climate. These climates may be ensured through administrative policy and measures

Theoretical Foundation of the study

E-Learning – Meaning and Definition

A learning system based on formalized teaching but with the help of electronic resources is known as E-learning. While teaching can be based in or out of the classrooms, the use of computers and the Internet forms the major component of E-learning. E-learning can also be termed as a network enabled transfer of skills and knowledge, and the delivery of education is made to a large number of recipients at the same or different times.

E-learning Practices in Educational Institutions

The educational institutions follows various practices to supplement the traditional teaching and learning practices at classrooms by means of offering the e-learning resources at computer laboratories in order to create interest among the students and also prepare them as industry ready with required KSA (knowledge, skills, and employability). Similarly, in order to groom the students according to the industry expectations it becomes mandatory the teaching faculty of the educational institutions must acquire latest knowledge on their subjects through continuous learning. Apart from the formal education from the universities, the continuous learning is possible through taking short-term courses from e-learning resources such as NPTEL, MOOC, MOODLE, SWAYAM, etc. Most of the educational institutions encourages their faculty members to take e-learning courses from the above-mentioned sources and it becomes the part of their performance appraisal based on which their increments, incentives, promotion would be given.

The DeLone and McLean Model of Information Systems Success

In 1992, DeLone and McLean developed a model to assess the success of the information systems, famously known as The DeLone and McLean Model of Information Systems Success model or IS success model. It provides a comprehensive understanding of IS success by identifying, describing, and explaining the relationships among six of the most critical dimensions of success along which information systems are commonly evaluated. The dimensions of the IS system success are information quality, service quality, system quality, system use, user satisfaction, net benefits (includes system impact on individual, and organizational impact).

Institutional Climate (or Organizational Climate) - Meaning and Definition

Organizational climate defines the perceptions employees have about the environment of an organization. This contributes to the organizations' overall health and self-renewing capabilities which in turn increase the enabling capabilities of individuals, teams and the entire organization (Organizational Behavior By Stephen. P. Robbins).

Factors affecting Organizational Climate

According to Litwin and Stringer (1968), the institutional climate of the organization can be assessed through four quadrants approach namely human relations, internal process, open systems, and rational goal.

Human Relations model

This approach emphasizes the well-being, growth and commitment of the community of employees within an organization. The Human Relations Model (internal focus, flexible orientations) has norms and values associated with belonging, trust, and cohesion, achieved through means such as training and human resource development. Human relations factor include Autonomy, Integration, Participation, Leadership, Supervisory support, Emphasis on training, and Employee welfare

Internal Process model

The internal process approach refers to internal focus and tight control within the organization. Coordination and control are achieved by adherence to formal rules and procedures. The Internal Process Model represents the classic bureaucracy. Scales which reflect this model are Formalization, Tradition, Career advancement, Company policies and Administration, and Trust and Respect.

Open system model

The open systems approach refers to external focus and flexible relationships with the environment which emphasizes the interaction and adaptation of the organization in its environment, with managers. Climate dimensions which are likely to reflect this orientation are Flexibility, Innovation, Outward focus, and Reflexivity.

Rational Goal

The rational goal approach refers to external focus but with tight control within the organization. The primary emphasis is on the pursuit and attainment of well-defined objectives, where norms and values are associated with productivity, efficiency, goal fulfillment, and performance feedback. Climate dimensions which might reflect this model are: Clarity of organizational goals, Efficiency, Effort, Performance feedback, Pressure to produce, and Quality

E-Learning

Methods and Samples

This research followed descriptive research design. Through this research, the researcher attempted to describe the role of e-learning practices for teaching faculty on enhancing institutional climate at Self-finance engineering colleges at Chennai city. The researcher gathered primary data required for the research through self-administered questionnaire by survey method of data collection.

The questionnaire of the research comprises four sections namely personal details, e-learning courses details, E-learning practices scale, and institutional climate scale. The personal details section has the questions related to the demographic profile of the sampled teaching faculty which includes their name, name of the educational institution, age group, gender, total teaching experience, experience in present organization, computer education. The second section deals with number of e-learning courses completed so far, number of courses presently doing, preferred source of e-learning courses, overall satisfaction towards e-learning courses, etc. The third section of the questionnaire deals with assessment of e-learning practices based on the DeLone and McLean Model of Information Systems Success (2003), which includes the questions related to system quality, information quality, system use, user satisfaction, and individual impact. The fourth section deals with the questions related to institutional climate of the organization based on Litwin and Stringer (1968) model with four quadrants such as human relations, internal process, open systems, and rational goal.

The survey was conducted among the teaching faculty teaching engineering courses and working in self-finance engineering colleges located in and around Chennai city. The teachers who have at least two years of teaching experience and taken at least one e-learning course is considered for the survey. The sample size of the survey is 150. The reliability of the questionnaire was assessed through pilot study of 30 samples.

Table 1. Reliability Analysis

S. No	Constructs and Factors	Cronbach Alpha
1	E-Learning Practices	0.836
2	System Quality	0.793
3	Information Quality	0.822
4	System Use	0.725
5	User Satisfaction	0.946
6	Individual Impact	0.717
7	Institutional Climate	0.892
8	Human Relations	0.901
9	Internal Process	0.755
10	Open Systems	0.792
11	Rational Goal	0.935

From the table 1, it is found that the reliability of all the factors used in the research are having Cronbach alpha coefficient value more than 0.7, which means that it is reliable.

Results and Discussion

The primary data collected through the questionnaire was analyzed through the frequency analysis and structural equation modeling approach using the IBM SPSS 20.0 and IBM AMOS 20.0 software respectively.

Table 2. Profile of Sampled Employees

S. No	Particulars	No. of Respondents	Percent
1	Age Group		
	Up to 30 Years	29	19.3%
	31 – 40 Years	67	44.7%
	41 – 50 Years	36	24.0%
	51 – 60 Years	15	10.0%
	Above 60 years	3	2.0%
2	Gender		
	Male	86	57.3%
	Female	64	42.7%
3	Designation		
	Assistant Professor	97	64.7%
	Associate Professor	42	28.0%
	Professor	11	7.3%
3	Department		
	Engineering	68	45.3%
	Management	47	31.3%
	Science and Humanities	35	23.3%
3	Experience in the Present Organization		
	2 - 5 Years	58	38.7%
	5 – 8 years	44	29.3%
	8 – 11 Years	27	18.0%
	Above 11 Years	21	14.0%
4	Total Teaching Experience in Years		
	Up to 5 Years	36	24.0%
	5 – 10 years	69	46.0%
	10 – 15 Years	29	19.3%
	Above 15 Years	16	10.7%
4	Computer Education		
	No formal education	13	8.7%
	Short term/ Diploma course	26	17.3%
	Training at Educational institution	17	11.3%
	At School Level	34	22.7%
	At Undergraduate Level	42	28.0%
	At Postgraduate Level	18	12.0%
	Total	150	100

The following interpretations are made from the table 2:

- The results of the frequency analysis describes that nearly 44.7% of the teaching faculty who are taken for the survey are in the age group of 31- 40 years, (24.0%) of them are aged 41-50 years, while it is also found that 29 which accounted to about (19.3%) of them are below the age of 30 years. The result also show that 10.0% of the responded fall under the age group of 51-60 years and only 3 teaching faculty are above the age of 60 years.
- Majority (57.3%) of the respondents are male and (42.7%) are female teaching faculty those who were taken as the sample for the research study.

- With regards to the department where the faculty are employed it is found from the survey that about 68 respondent belong to Engineering department which has accounted to nearly 45.3%, while 31.3% of the teaching faculty are from the Management department. Whereas 35 faculty are employed in the Science and Humanities Department where their percentage accounted to 23.3% in the study.
- From the percentage analysis it is found that 38.7% of the teaching faculty have about 2-5 years of teaching experience in the present organization where they are employed. Similarly 29.3% of the teaching faculty those who were taken for the survey have an experience 5 -8 years in the current organization. The analysis also reveals that about 18.0% of the faculty have only 8-11 years and 14.0% of them have above 11 years of teaching Experience in the Present Organization.
- It is found that nearly 69 faculty have a total teaching experience of 5 -10 Years, whereas 24.0% of the faculty opined that they have a totally teaching experience of up to 5 years. Meanwhile the results also show that 19.3% of the have 10- 15 years as their totally teaching experience, 10.7% of them have above 15 years of total teaching experience in their academic career.
- With respect to the knowledge of computer education the analysis establish that 28.0% of the teaching faculty possess undergraduate level as their computer education and 22.7% of them have the basic knowledge of computer education school level.
- While 17.3% have done their short term/ diploma course which show their computer education, 12.0% have done their postgraduate level and 11.3% of them have done their computer education through Training at Educational institution, while 8.7% of them do not possess any formal education in computer.

Table 3. E-Learning Course Details

S. No	Particulars	No. of Respondents	Percent
1	Most preferred e-learning courses		
	NPTEL	56	37.3%
	MOOC	39	26.0%
	MOODLE	18	12.0%
	SWAYAM	26	17.3%
	Others	11	7.3%
2	Number of e-learning courses completed so far		
	One	43	28.7%
	Two	75	50.0%
	Three	23	15.3%
	More than Three	9	6.0%
3	Number of e-learning courses presently pursuing		
	None	3	2.0%
	One	85	56.7%
	Two	45	30.0%
	More than two	17	11.3%
4	Usefulness of E-learning courses in subject knowledge development		
	Not at all useful	4	2.7%
	Occasionally useful	6	4.0%
	Somewhat useful	10	6.7%
	Very useful	57	38.0%
	Extremely useful	73	48.7%
5	Overall satisfaction towards e-learning courses		
	Highly Dissatisfied	2	1.3%

	Dissatisfied	3	2.0%
	Neutral	11	7.3%
	Satisfied	56	37.3%
	Highly Satisfied	78	52.0%
6	Willingness to recommend e-learning courses to friends in teaching domain		
	Yes	143	95.3%
	No	7	4.7%
	Total	150	100

The following are the inferences drawn from the table 3:

- About 37.3% of the teaching faculty opined that NPTEL is the most preferred e-learning courses among the various courses available for the teaching faculty through e-learning. While 26.0% of the faculty agreed that MOOC next preferred e-learning courses to NPTEL, 17.3% of the opined that SWAYAM is the third preferred e-learning courses as opined by the teaching faculty found from the study. Only 7.3% of the faculty opined that others courses were most preferred e-learning courses opted by the faculty.
- Majority 50.0% of the teaching faculty have completed at least two e-learning courses, 28.7% of them have completed only one e-learning courses, while 15.3% of them have finished three of the e-learning courses and 6.0% of the faculty have completed more than three courses through e-learning.
- With regards to the Number of e-learning courses presently pursuing it is found that 56.7% of them are currently undergoing one e-learning courses. While 30.0% of the faculty are pursuing two e-learning courses, 11.3% of faculty are studying more than two e-learning courses presently and it is also found nearly 2.0% of the faculty are pursuing any e-learning courses.
- All most 48.7% of the faculty those who are pursuing the E-learning courses found it extremely useful for their subject knowledge development knowledge development, and 38.0% of the faculty also opined that E-learning courses learnt by them were very useful in development of subject knowledge. Whereas 6.7% of the faculty expressed their view as E-learning courses undergone by them were somewhat useful in development of the subject knowledge, 4.0% said that these E-learning courses were occasionally useful in the enchantment of subject knowledge and 2.7% of them expressed that pursuing the E-learning courses were not at all useful in subject knowledge development.
- Majority (52.0%) of the respondent agreed that they were highly satisfied with the e-learning courses they have pursued and 37.3% of the teaching faculty opined that they are satisfied with the e-learning courses undergone by them. While 11 respondent that accounted to 7.3% were neutral with regards to the overall satisfaction towards e-learning courses, 2.0% of them were dissatisfied and 1.3% are highly dissatisfied with the overall satisfaction towards e-learning courses pursued by them.
- Majority 95.3% of the teaching faculty highly agreed that they were willingness to recommend e-learning courses to friends in teaching domain and 4.7% of them opined that they will not recommend e-learning courses to friends in teaching domain.

Table 4. E-Learning – Descriptive Statistics

S. No	E-learning Factors	Mean	Standard Deviation
1	System Quality	3.94	1.635
2	Information Quality	4.15	2.413
3	System Use	4.03	1.834
4	User Satisfaction	3.85	0.935
5	E-learning impact on Individual	4.05	1.268
6	E-Learning Practices	20.02	1.568

The results of the descriptive statistics related to e-learning practices are summarized in table 4, which indicates that the mean scores of all the factors are more than moderate level and among the e-learning factors, the teaching faculty has better satisfaction towards the information quality of the e-learning resources with the mean score of 4.15. The overall e-learning practices mean score is 20.02.

Table 5. Institutional Climate – Descriptive Statistics

S. No	Institutional Climate Dimensions	Mean	Standard Deviation
1	Human Relations	4.14	1.934
2	Internal Process	3.67	2.193
3	Open Systems	3.78	1.738
4	Rational Goal	3.93	0.823
5	Institutional Climate	15.52	1.823

The outcome of the descriptive statistics related to dimensions of institutional climate is presented in table 5, which indicates that the mean scores of all the dimensions are more than moderate level and among the four institutional climate dimensions, the teaching faculty has better satisfaction towards the human relations of the self-finance engineering colleges with the mean score of 4.14. The overall e-learning practices mean score is 15.52.

Structural Equation Modeling

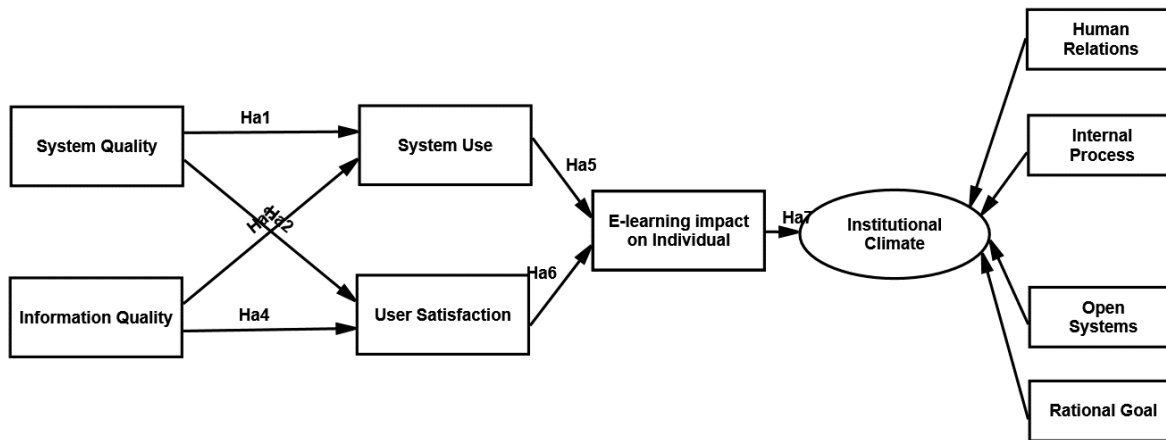


Figure 1. Conceptual Model of the Research

Based on the literature review and theoretical foundation of the research the researcher developed the conceptual model of the research which is portrayed in figure 1. The following hypothesis are formulated based on the above-mentioned model:

- Ha1: System quality is having significant positive impact on system use.
- Ha2: System quality is having significant positive impact on user satisfaction.
- Ha3: Information quality is having significant positive impact on system use.
- Ha4: Information quality is having significant positive impact on user satisfaction.
- Ha5: System use is having significant positive impact on Individual/user.
- Ha6: User satisfaction is having significant positive impact on Individual/user.
- Ha7: Impact of E-learning resources on individual is having significant effect on their perception towards institutional climate.

The structural equation modeling approach was used to test the above-mentioned hypothesis related to the conceptual model.

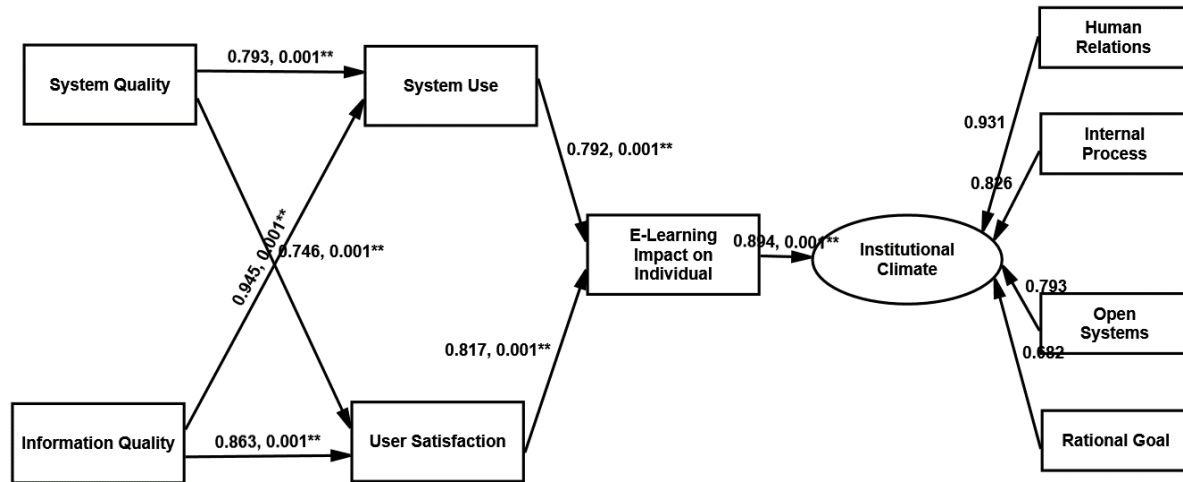


Figure 2. Role of E-Learning Practices on Institutional Climate – SEM model

The SEM model of Role of E-Learning Practices on Institutional Climate based on standardized regression coefficient is presented in figure 2. From the above figure, it is identified that all the hypothetical relationship mentioned in the conceptual model of the research is accepted at 1% level of significance. The standardized regression coefficient of the path between e-learning impact on individual and institutional climate is 0.894, which means that the e-learning practices are having significant positive effect on perception of teaching faculty towards institutional climate. The model fitness indices of the above SEM model such as Chi-square (2.356), p value (0.682), GFI (0.924), AGFI (0.946), RMR (0.05), and RMSEA (0.04) are also falls under the recommended range of values, which means that above mentioned model is fit.

Conclusion

The Organizational Learning is an important component of growth of any organization, particularly self-finance engineering colleges being a part of knowledge based industry, which imparts subject knowledge, skill, and attitude to the students and prepare them for employment in industry, the knowledge of teaching faculty plays a crucial role. The e-learning resources plays a vital role in enrichment of teaching faculty at self-finance engineering colleges at free or nominal cost. The results of the study proves that the impact created by e-learning resources on the individual has the significant positive effect on the perception of teaching faculty towards the institutional climate of self-finance engineering colleges. Therefore, through this study it is recommended that motivating the teaching faculty to do more e-learning courses (at least one in a semester) will always enhance the institutional climate of the organization.

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