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Message from the Editor-in-Chief

Dear Colleagues,

TOJDEL welcomes you. TOJDEL would like to thank you for your online journal interest. The online journal system has been diffused very fast for last six years. We are happy to see that almost more than 100,000 educators, teachers, parents, and students from around the world have visited for last six years. It means that TOJDEL has continued to diffuse new trends in distance education and e-learning to all over the world since January, 2013. We hope that the volume 7, issue 1 will also successfully accomplish our global distance education and e-learning goal.

TOJDEL is confident that readers will learn and get different aspects on distance education and e-learning. Any views expressed in this publication are the views of the authors and are not the views of the Editor and TOJDEL.

TOJDEL thanks and appreciate the editorial board who have acted as reviewers for one or more submissions of this issue for their valuable contributions.

TOJDEL will organize IDEC 2019 - International Distance Education Conference (www.id-ec.net) on August, 2019 at George Mason University in America. This conference is now a well-known distance education event. It promotes the development and dissemination of theoretical knowledge, conceptual research, and professional knowledge through conference activities. Its focus is to create and disseminate knowledge about distance education. IDEC 2018 conference book has been published at **http://www.id-ec.net/idecpubs**

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TOJDEL is guided by its editors, guest editors and advisory boards. If you are interested in contributing to TOJDEL as an author, guest editor or reviewer, please send your CV to editor.

January 01, 2019
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ABSTRACT
Review of this article helps the development of higher education administrator leadership styles. To find out the challenges in the higher education and how to change the challenges in the higher education. Which leadership styles promote the leaders to follow it. To compare different countries education system and find out the merits and it helps our higher education system makes better. It is not necessary to follow all the systems but according our culture and the environment we can adopt something new. This review paper helps the management, administrator, and school principals to adopt new system and develop suitable leadership styles. This article gives knowledge to further refine educational leadership and management policies and practices by accepting and utilizing the basic principles and styles of educational leadership.

INTRODUCTION

This review paper describes about "Strategic Transformation of Higher Education" Solution for the challenges in Global Economy". There are many challenges in higher education based on their goals and their mission. Not only challenges but also some remedys steps help to overcome the challenges. Esther Barazzone, President, Chatham University said that the higher education should focused on the goal, and it should be global comparison. Also, He/ she directed to change the online course, quality of education, skills, improved access, and competency-based education. This book instructed me that the leaders, administrators and especially the faculty of higher education to understand the policy and the critical to institutional survival. This book suggested me the practical experience, and positive learning experiences. It provides the skill to success the multifaceted for living and following in complex and uncertain global situation (Stewart E). The leaders have to find the current scenario and finding the challenges for the environment to prepare the policy to transform the higher education (George R. Boggs).

OBJECTIVES

1. To identify the challenges in higher education
2. To change the challenges in higher education
3. To develop leadership styles and characteristics towards higher education.
4. To compare different countries higher education system and their assessments.

IDENTIFY THE CHALLENGES IN HIGHER EDUCATION

Higher education institution is huge, complex, adaptive system like all other organization. The last year higher education faced many challenges in around the world, mainly learning and teaching for but they supported for teaching and learning. The leaders need to find the challenges, identify the possibilities to unhands the challenges. The students are changed their learning styles (Sarker, Davis, & Tiropanis, 2010). Then they changed their demands. The higher education has to prepare the student for their global future life and the students have to face the growing problem. There are many challenges in higher education to face and the most difficulty is designing the curriculum, pupil preservation, innovative skills, value of teaching and learning, broadening involvement, value of investigation, subsiding the necessity to expand power, the organization as the red-hot challenges(Englert, 2013). It is the reason to develop program plan, Pupil employability, spreading involvement, value of knowledge and instruction, value investigation, accepting evolving skill, and valuation.

Curriculum design:

Higher education should change the expectations and needs the society. The technology should change based on the teaching and learning perspective. The should aware of introducing new curriculum for the study program or the course. What are the course are used to get knowledge to provide? The curriculum should have based on the students and the society needs. To make sure all the student quality of learning all institutions need to redesign of the curricula(Sarker et al., 2010)

Student Employability:

All the student needs to get job is the important challenges. People are looking education possibilities to live in the world for happy life. The main concern to reduce the financial situation so that all the students are try to graduate. Now a day all the education to sell the education and provide market needs. Not only getting job as well as personal development also important challenges. They learn may skills especially team working, communication skills, information technology, and critical thinking to promote students employability(Sarker et al., 2010).

Quality of learning and teaching:

Quality is he most challengeable issues in the higher education. They have to upkeep about the quality of education and training because it is the best way to develop standard worldwide. If they don't get quality of education, then they lose their identity and don't get student strength. The teachers should give the broader knowledge and give proper input about the subjects. In UK aims to get good education and based on the job. They try to fulfill the culture needs and survival of life.

Quality research:

Higher education has to strengthen the research capacity. In order to get this challenge, HE institutions develop multidisciplinary and gather all the researcher and the expertise's to give seminar about the research capacity and develop the good relation among them. The main aims to progress and tolerate an active and globally modest study sector varieties a main input to financial success.

Challenges of Variation in Complex Instruction

Importance of advanced instruction is creation of knowledge, keep and development of complex socio-technical systems, and talking issues of interest to humans. Not only those challenges but also developing growth knowledge, gathering information potential, creating innovation, worldwide economic, ecofriendly change, and problems of human concern(Englert, n.d.). knowledge growth is twice and fast rising. Comparing to computer fields the growth is flying than another field. Getting information potential is very quick because all the people are learned to use computers and the know how to get the information they need. Grossmann's law says collecting information potential factor is grater than the 1000 years' sources. Inventors and innovators are introduced new techniques to find new information. The current scenario people get more access to get all the information and developed the centers. All kind information we can get not only education but also political, business, medicine, transport, and entertainment information. The whole information is available in the dorm of digital. The students get information before collecting the data because of the speed level of the internet sources.(Ministry of Education, 2017). The curriculum-based reform must to be changed inn higher education. The assets and tests of these modifications further learnt kindnesses of the adjustment procedure. The deficiency of suppleness in improvement curricula reduces chances for educators to adjust the course of right the exact requirements of the pupils (Shani, 2011).

DEVELOP THE LEADERSHIP STYLES

It involves many leadership styles, especially transactional, transformational, charismatic, and situational leadership. The leaders should have knowledge about the management. In the current establishments is challenging the transformation in data structures, from book to digital way. The transformation has been unknown slight of a uprising. Our present leaning towards informatics possessions the method of guidance by fastmoving up the efforts, necessitating quicker and added private change.

Transformational leadership:

Burns (1978) demarcated transformational direction as a method in which "leaders and followers raise one another to higher levels of morality and motivation". It is the skill to nurture the requirements of the following in faithful. Giving to Burns, concentrating on desire develops leaders responsible to the supporter. Public like to hint that a higher structural divine task director them encourages. A leader should overcome the conflict situation. Struggle is essential to make substitute and to make the transformation thinkable. It courses of alteration is created on identification, thoughtful, intuition, and deliberation. The substantial relationship between innovation and reframing guidance looks justified of extra examination (Bryant 2003; Crawford & Strohkirch, 2002).

Innovative Leadership in knowledge Organizations:

Mahoney (200) preserved the situation healthy, "let me say from the start that in my view leadership must exist at all levels in an organizations, regardless of the size, for it to consider itself a learning organizations… there is no excuse for them not creating an environment where everyone can participate in this process"(Crawford, 2003). The observed results, still incomplete, appear to give nearly care to the academic assumption completed by several writers talking of the requirement for supporting joint leadership in the transitions to the information humanity. Bryant's research about origin after which to risk that transformational leadership might be connective factor prompting better information management services, still his research emphasis does not empirically test the instrumental directions among the two elements. Parry (1999) says that researchers found relationship between leadership behavior and organizational performance outcomes, though there are many intervening factors.

Charismatic leadership:

Character of the frontrunner is to trail by public over his conjoins in order to reach the aims of the establishments. So, the leader needs to realize the human deeds to be skilled of communications, in order to lead the communities. The need for a leader with personality information, services and capabilities in order to guide the workers in attaining the task, idea and aims of the initiative. The charismatic leader is one that has effect, motivates, encourages, and inspires poise between the groups. The fascinating frontrunner, cheers to the individual that he holds and which diverge him from other bests(Nikoloski, 2015). It makes to find the charismatic leaders efficiency and thoughtful ideas. By motivating insight into the gaining behind their movements in respects to both their charismatic leadership styles as well as their impress organization, investigators and researchers similar are now able to better recognize the connection between frontrunner and the supporter (Sparks, 2014).

Situational leadership:

Situational leadership style is very important for developing our knowledge and act according to situation. It is known as the great man theory, progressed into the study of management behaviors, this can be replaced future concepts argument (Glynn & DeJordey, 2010). It proposes the active needs a normal thoughtful of the condition and a suitable answer, rather than a captivating leader with a huge set of devoted groups. It is particularly task-oriented against people-oriented leadership theory. Those who are enough knowledge to find out the leadership style is good and follow it (McCleskey, 2014). For example, this is managerial guidance. A leader cannot hold a particular leadership style because they have to work in different culture of people and different places. Maturity makes it easier to convert the situational leadership model into a learning-teaching model for combined education. When a leader has to introduce a new employ to the team, he must have good opinion and good thoughts about him. This is the good example as one cane imagine that the management deeds are situational in many ways and well known is qualified. Thus, all the leaders must evaluate situational background of the job and the supporter's maturity (Meier, 2016).

CHARACTERISTICS TOWARDS HIGHER EDUCATION

It is a community devoted to the search and spreading of information, to the study and explanation of ethics, and serves to the humanity. It supports their objectives and purposes. The main action is accreditation to reform their mission and vision, it is accepted by the informative public. Accreditation helps to support and maintain their value and honesty of advanced instruction. Higher education has some criteria to get permission for all the institution.

- ✓ The mission should suitable to higher education.
- ✓ The goal must be definite and proper goals, and goals for student learning.
- ✓ It assesses both recognized success, and student knowledge out comes, and the grades used to develop their information.
- ✓ They work according to their task and the goal.
- ✓ They are planned, operated, then maintained. It is the continuous evaluation for attaining the goals.

It has to cross some suitability necessities and values of the middle states commission on higher education(OECD, Federal Ministry for Education, & Middle States Commission on Higher Education, 2006). It changes, and several universities are in state of important change. It is together stimulating and unsetting the original enlightening models and resources of bringing enlightening plans and facilities are developing at all levels of advanced instruction. It helps to guide the development of those revised standards. The first values place better importance on recognized valuation and calculation of pupil education. It is the standard accept the variety of enlightening transfer structures that allow organization to light the approval values, in order to attain

better particularity. Those qualities too affirm that the different task and points of every association proceed with the structure inside which these accreditation guidelines are connected amid self-study and assessment. The guidelines accentuate works as opposed to particular structures, perceiving that there are a wide range of models for instructive brilliance.

Standard 1: Mission, Goals, and Objectives

The establishment mission plainly characterizes its motivation inside the setting of advanced education and clarifies whom the organization serves and what it plans to achieve. The mission, objectives, and goals are produced and perceived by the establishment with its individuals and its administering body and are used to create and shape its projects and practices to assess its adequacy.

Standard 2: Planning, Resources Allocation, and Institutional Renewal

All the establishment has progressing arranging and strength designation in view of its main goal and utilizations the consequences of its evaluation exercises for institutional restoration. Execution and resulting assessment of the accomplishment of the vital arrangement and strength allotment encourage the advancement and change important to enhance and to keep up institutional quality.

Standard 3: Institutional Resources

The human, money related, specialized, physical offices, and different resources important to accomplish a foundation's main goal and objectives are accessible and available. With regards to the foundation's central goal, the proficient employments of the organization's assets are examined as a component of continuous results appraisal.

Standard 4: Leadership and Governance

The organization's arrangement of administration unmistakably characterizes the parts of institutional bodies electorate in approach advancement and basic leadership. The administration structure incorporates a dynamic administering body with adequate independence to guarantee institutional respectability and to satisfy its duties of approach and asset advancement, predictable with the mission of the establishment.

COMPARING DIFFERENT COUNTRIES EDUCATION SYSTEM

Higher education systems in Finland:

The Finland's advanced education framework is a standout amongst the most critical instruction frameworks on the planet. In the essential and optional levels of tutoring in Finland is necessary and free. The advanced education in the wake of tutoring in Finland is most interesting and regard for the residents. The diverse levels of advanced education in Finland resemble, Polytechnics, Colleges and Universities. Every one of them they have outlined possess educational program in light of the present patterns and necessities to the understudies.

Higher Education Systems in India:

India is one of the quickly developing training parts in the advanced world. Indian organizations like Indian Institute of Technologies (IITs), Indian Institute of Managements (IIMs), National Institute of Technologies (NITs), National Institute of Fashion Technologies (NIFTs), All India Institute for Medical Sciences (AIIMS), Indian Institute of Science (IISC), Indian Institute of Information Technologies (IIITs), Birla Institute of Technology (BITS), and so on has worldwide acknowledgment as far as advancement and educational modules (Singh, 2011). Despite the fact that, India's advanced education frameworks needs in sufficient resources like library, research facility, foundations, and so on. Be that as it may, the understudies have the potential information, excited, exceptionally enthusiasm to learn new things, persevering to accomplish their best in instruction and also their transporter (Rumbley, Helms, Peterson, and Altbach, 2011).

Higher Education Systems in Thailand:

Thailand’s education systems are oriented with the new policy Thailand 4.0. It gives a result of good education systems in the colleges and universities level. OHEC of Thailand is changing higher education framework and policies often related to quality standards of education (Sophister, 2011).

Higher Education Systems in Singapore:

Learning does not end after people enter the workforce. Grown-ups who wish to extend their aptitudes or obtain new ones can experience ceaseless learning in post-optional instruction foundations. These organizations give an extensive variety of learning alternatives for grown-ups, which help to address labor and aptitudes holes, bolster

industry improvement and occupation creation, encourage training and vocation change by means of different pathways, and empower the workforce to remain employable in the midst of fast moves in the financial scene.

Higher Education Systems in USA:

The American advanced education area is various and creative. In 2014-15, the segment delivered more than 1 million partner's degrees, about 1.9 million four-year certifications, more than 758,000 graduate degrees, and more than 178,000 doctoral degrees.1 The world pioneer in advancement for a considerable length of time, the segment keeps on creating front line investigate and contributes forcefully to the American economy. Late gauges reasoned that the United States spends a bigger level of GDP on advanced education than some other nation (Brown, Kurzweil, and Pritchett, 2017).

COMPARING ASSESSMENT SYSTEM

There are numerous evaluation frameworks in advanced education. Illustration: Exams, Participations, Quiz, Activity, Continue Assessment Systems, and so on. In these, CAS (Continue Assessment Systems) is imperative and mainstream towards advanced education frameworks. There is an assortment of approaches to arrange appraisals (Hill and Larson, 1992: Herman, Aschbacher, and Winters, 1992). Truth be told, since the scope of built reaction composes and circumstances is boundless and more configurations are being produced constantly. Counting the many-sided quality of their advancement organization, and scoring: the requests they put on understudies and instructors, their cost and the subjective requests they make on students (Stecher et al., 1997). The appraisals are understudy evaluation, instructor evaluation, the school assessments, and framework assessment. The examination of the proof on assessment and appraisal, inside and out survey of assessment and evaluation polices in a scope of nations and a union report contrasting nation experience and drawing out general lessons for approach improvement. The adequacy of assessment and appraisal depends, as it were, on guaranteeing that both the individuals who outlines and embrace assessment exercises and also the individuals who utilize their outcomes have the best possible abilities and capabilities. This is critical to give the essential authenticity to those in charge of assessment and assessments (Herzog, 2009).

CONCLUSION

We extend our life in different ways and different experiences. But all the experiences gave good or bad direction to achieve our goal. The same thing can not apply in the higher education, Hal Moore said that we were soldiers to find the way to win whether it is good or bad but our goal is to win. In higher education, we think about the student faculty and administrators. The leaders have to think how we can provide the good education and which way to develop the skill towards the learning students. If they find their ways and transform to strategic policy. Those steps are put in the implement process. The main problem comes from the financial sides so the leader has resolve the problems and show the remedy of that issues. The organizational structures are more select and changeable. What are the technology helps to learn new for new thing, it has to be provided by the institution? The leadership styles are very important to sharp the leaders in good path way. Transformative leaders institutionalize such behaviors, and the institutional cultures reflect greater agility and responsiveness to changing the times. Higher education is the important factors in influencing social challenges, and make good decision (Browne & Shen, 2017). It is mainly considered for social and economic development.

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CAREER DEVELOPMENT PRACTICES THROUGH TRAINING, CONTINUING EDUCATION, AND E-LEARNING AND IT'S IMPACT ON QUALITY OF WORK-LIFE OF EXECUTIVES AT AUTOMOBILE INDUSTRIES IN CHENNAI CITY

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ABSTRACT
Every employee wants to have progression in their profession. The career advancement of the employees demands enhancement of their knowledge, skill, and attitude (KSA) according to the future position. The main objective of the present study is to explore the impact of career development practices through training, continuing education learning, and e-learning on quality of work-life of executives at Automobile industries in Chennai city. The present study is of exploratory research in nature. The survey method of data collection was adopted to gather primary data using self-developed questionnaire. The survey conducted among 300 executives from various passenger vehicles manufacturing automobile organizations located in and around Chennai city. The Descriptive statistical tools, Confirmatory Factor analysis, and structural equation modelling was adopted to analyze the primary data. The results of the study indicates that the career development practices through training, continuing education learning, and e-learning is having significant positive impact on quality of work-life of executives at Automobile industries in Chennai city.
Keywords: Career development practices, quality of work-life, e-learning, training, continuing education, automobile industry.

INTRODUCTION

The Indian automobile industry became the fourth largest in the world with sales increasing 9.5 per cent year-on-year to 4.02 million units (excluding two wheelers) in 2017. India produced 25.3 million automobiles, sold 17.7 million two-wheelers in FY 2016-17, and becomes the largest two-wheeler market in the globe. The automobile exports from India hiked 15.81 per cent in FY 2017-18, whereas two-wheelers exports increased around 17 per cent. Indian automobile industry consists of private and foreign players in various segments such as commercial vehicles, passenger cars, three and two-wheelers. The hyper competitive market demand acquisition and retention of talents in order to design, develop, and manufacture quality products and services to the customers according to their expectations, and even beyond their expectations. Executives in work place irrespective of the industry they work expects career advancement over a period of time which would satisfy their financial and psychological needs.

Career advancement programmes plays a critical role in talent acquisition and retention of the executives in Automobile industries. The automobile organizations are striving to establish a well-defined career path for the executives, with the possible designations, and level of KSA (knowledge, skill, and attitude) for each designation. Over a period of time, if the executive works in the organization acquires required minimum experience, educational qualification, and KSA, then he/ she would be considered for the career advancement to the next stage through systematic evaluation by head of the department or panel members. The career development practices for an executive occurs through gaining required KSA for the next level designation through training, continuing education, and e-learning practices. Most of the earlier researches proved that career advancement is one of the important factor which could leads to better perception of quality of work-life (QWL). The main objective of this paper is to assess the impact of career development practices through training, continuing education learning, and e-learning on quality of work-life of executives at Automobile industries in Chennai city.

THEORETICAL FRAMEWORK

Career development:

According to Armstrong (2001),"career development was of excessive significance to the employee and the organization in the sense that there was communication between the business for which he/she worked and the growth of the organization through the employee's career. A worker improved his/her career through an unceasing attainment of managerial or proficient skills and know-how which resulted in rewards and promotion".

The terms 'career development' or 'career advancement' are used interchangeably. The term 'career development' denotes to the enduring journey of a person's professional identity, whereas Career advancement is a short-term step or goal. In simple words, career development is wider than career advancement, career advancement is a sub-set of career development which comes through years of education, training and job experience.

Career development represents the step-by-step defined path of vertical advancement of employee through the various levels of a business from bottom to the top positions. The career advancement of an employee must be from race, gender, age or ethnicity. Career development programmes or career advancement programmes in many of the organizations offers suitable training, learning and development practices to their executives to nurture them as future leaders.

As mentioned earlier, the advancement of an executive to the next higher level designations are based on matching of their individual KSA with the KSA required in future designation. The KSA of every individual can be enhanced through systematic education, training, and work experience. So the main components of career development practices are training, e-learning and continuing education.

Training

Employee is considered an important asset of any organization. The talent of the employees can be enhanced through appropriate training methods. Training plays a major role in sharpening the job-related KSA of an employee, which brings competitive advantage to the organization. So, therefore every organizations irrespective of the industry they belongs to make huge investments is developing the talents of their employees. Employees' knowledge, skills, and behavior can be enhanced through training which improves their ability to perform their tasks more efficiently and effectively. According to Rodríguez and Gregory (2011),"training plays a vital role in enhancing the quality of service offered to the customers".

Training is a Human Resource Development (HRD) tool, which consists of planned programme designed to enhancethe performance at the individual, group, and /or organizational levels (Cascio, 1995). It has tremendous capacity in transfer and utilization of state-of-the-art technical know-how, and plays a major role in all important components of HRD such as leadership development, organization of people, formation of self-help-groups, mobilization of people as well as resources, empowerment of resource-poor rural mass, entrepreneurship development, etc.,

E-Learning

Another important way of developing KSA of an employee may be through self-learning e-learning. The term e-learning represented through various terms such as online learning, distributed learning, technology-enhanced learning, computer-based learning, or web-based training (Welsh et al., 2003). Nichols (2003) defines "E-learning as the use of various technological tools that are Web-based, Web-distributed or Web-capable for the purposes of education". In other words, e-Learning is defined as, "the use of ICTs to enhance or support learning and teaching (Gay et al., 2006)". E-learning can be defined as learning that utilizes Internet in the delivery, support, administration and assessment of learning (Kirschner & Paas, 2009). E-learning as all forms of electronically supported teaching and learning processes, which aim to construct knowledge by utilizing learner's experience, knowledge and practice by using specific information and communication systems to implement the learning process. Many of automobile organizations in India initiated to offer e-learning modules

related to the present and future job profile of an executive in order to enhance their work performance and prepare them for future positions. Most of the automobile organizations also encourages their executives to take online short-term courses and Management development Programmes (MDP) related to their job domain from reputed technical institutes and business schools.

Continuing education

Earlier the learning had not been considered as a lifelong process (Collins, 2009). The father of adult learning, Malcolm Shepherd Knowles, stated that "lifelong learning (LLL) would become the organizing principle of all education". Continuing Education (CE) is otherwise termed as professional development and Lifelong learning, which refer to systematic full-time or part-time or distance education of a short-term certificate, diploma or long-term degree course or training process for the KSA development of an employee. Continuing education of employees are required because of rapid change in the technological changes in the industry due to hyper competitive business environment.

Quality of Work-Life (QWL)

QWLdenotes to the quality of associationbetweenworkers and the work environment. According to Walton (1975) factors affecting QWL are, "Adequate and fair compensation, Secure and healthy working conditions, Opportunities for the development of human capabilities, Opportunities for continuous growth and security, Social alliance in the work organization, Law governed work in the organization, Importance of work, and the social relevance of work life".

The different authors have given different set of factors which affects perception towards quality of work-life in the organization.

Chelte (1983) outlines "QWL as, excellence of association among employees and the entire working environment with human dimensions, technical and economic concerns."

Rochita (2010) piloteda study to see the associationamong quality of work life and job satisfaction between university employees. The outcome of the research study discloses that the university employees were not content with the degree of autonomy they are enjoying, the individual growth opportunities, complexity in job, their control on the job and the amount of support they get from the top management in the job. The research also discloses that there is optimisticassociationamong job satisfaction and QWL.

Chitra and Mahalakshmi (2013) has taken ten variables to evaluate quality of work life with factors such as backing from organization, work-family conflict, peers association, self-competence, influence of job, meaningfulness of job, positivity on organizational change, autonomy, admittance to resources and time control. Henceforth the study discloses that each of these QWL variables is a noticeable predictor satisfaction of job.

RELATIONSHIP BETWEEN CAREER DEVELOPMENT AND EMPLOYEE QUALITY WORK-LIFE

There are only few researchers who had attempted to explore the interrelationship between career development of employees and their perception towards quality of work-life in the organization.

Permarupan et al.(2013) in their study titled, "the associationamong career development and talent development practices: towards employee quality work life balance", found that career development practices have a noteworthy and optimistic relationship with employee quality work life balance and they have also pointed out that their study can be further extended on the growth of 'Employees Work-Life Balance', to 'Employees Quality Work-Life' whichindicate the significance of incorporating career development practices, and talent development system in cultivation a stabilityin employee work-life.

Amin(2013),examinedthe quality of work life of employees working in the public service. Meanwhile the outcome of the study confirmed, that career development and personal factor could boosted quality of work life of among the employees. The inference of this study is that it does donate to understanding of the ways by which the management can attempt to increase quality of work life on the needs of the employee and the organization.

Based on the above literatures, the researcher developed following conceptual model and hypothesis of the study.

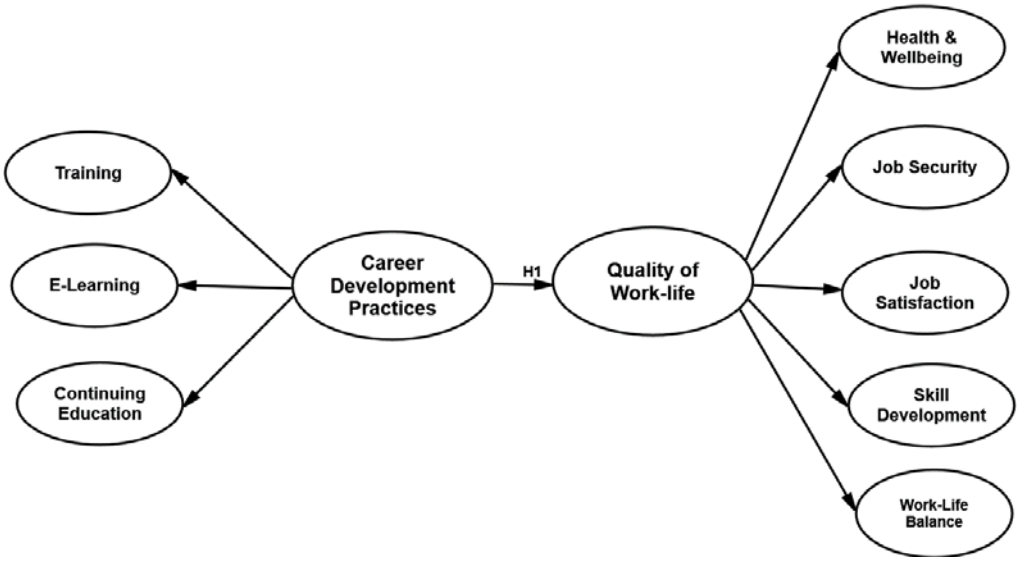

Figure 1. Conceptual Model

Hypothesis: The career development practices has positive impact on executives' perception towards quality of work-life prevailing in in selected Automobile organizations at Chennai city.

Research Methodology

The present research followed exploratory research design. The research attempted to explore the impact of career development practices through training, continuing education, and e-learning on quality of work-life of executives at automobile industries in Chennai city. The survey method of data collection was adopted to gather primary data using self-developed questionnaire. The survey was conducted among the various levels (i.e. junior, middle, and senior) executives working in various departments of selected Automobile organizations located in and around districts of Chennai city. The sampling units selected for the survey is listed in table 1.

Table 1. Sampling Units of the survey

S. No	Company Name	Location	Sample Size
1.	BMW India	Chennai	50
2.	Mahindra & Mahindra	Kanchipuram	50
3.	Ford India Private Limited	Maraimalai Nagar, Chennai	50
4.	Renault India Private Limited	Oragadam, Chennai	50
5.	Hyundai Motor India Limited	Sriperumbudur, Chennai	50
6.	Mitsubishi	Tiruvallur, Chennai	50
Total			**300**

The researcher adopted multi-stage disproportionate stratified random sampling technique to select the samples from the target population. The each sampling unit listed above are considered as different strata, in each strata departments are considered as different sub-strata, from each department the executives in different level such as junior, middle and senior level is selected for the survey. The sample size of the present research is 300. Before, the main survey the reliability and validity of the questionnaire was verified based on the results of pilot test conducted among 30 samples from the selected automobile organizations (i.e. five from each sampling unit).

Results and Discussion

The data collected through structured questionnaire was processed through IBM SPSS 23.0. The respondents' demographic profile summary is presented in table 2.

Table 2. Respondents' Demographic Profile summary

S. No	Particulars	Frequency	Percent
1	**Age group**		
	Less than 30 Years	126	42.0
	30 - 45 Years	102	34.0
	More than 45 Years	72	24.0
2	**Gender**		
	Male	238	79.3
	Female	62	20.7
3	**Educational Qualification**		
	Diploma	34	11.3
	UG Degree	188	62.7
	PG Degree	78	26.0
4	**Level of Designation**		
	Junior	167	55.7
	Middle	85	28.3
	Senior	48	16.0
5	**Experience in the Present Organization**		
	Less than 5 years	85	28.3
	5 - 10 years	104	34.7
	10- 15 years	64	21.3
	Above 15 Years	47	15.7
6	**Number of Promotions received**		
	None	37	12.3
	One	103	34.3
	Two	96	32.0
	More than two	64	21.3
	Total	**300**	**100.0**

From the table 2, it is identified that 42% of the respondents working in the automobile companies are in the age group of less than 30 years, 34.0% of the respondents are agedamong30to 45 years, whereas only 24% of the respondents belong to the age group of above 45 years.It is also perceived that majority of the respondents are male i.e. (79.3%) and rest (20.7 %) of them are female.With regards to academic qualification, majority (52.7%) of them are undergraduates, whereas 26.0% are post graduates, and only 11.3% are diploma holders. It is surmised that majority (55.7%) of them are working at the junior level and 28.3% are employed at the middle level and only 16.0% are designated at the senior level.It is also identified that nearly 34.7% of the respondents have an experience between 5-10 years' work experience, 28.3% have less than 5 years in the present organization, but 21.3% of them have 10-15 years of work experience, and 15.7% have above15 years' of experience in the selected Automobile organizations.

It is identified that 34.3% of the respondents have received only one promotion in the present organization whereas 32.0% of the respondents have received two promotions and 21.3% of the respondents have received above two promotions while 12.3% of the respondents received no promotions at all, which indicates the career advancement of the executives in the Automobile organization.

Table 3. Descriptive statistics

S. No	Variables	Mean	Std. Deviation
1.	Training	3.98	1.785
2.	E-Learning Practices	4.12	1.495
3.	Continuing Education	3.68	2.194
4.	**Career Development practices**	**3.93**	**2.058**
5.	Health & Wellbeing	3.89	1.485
6.	Job Security	4.04	1.747
7.	Job Satisfaction	4.13	2.046
8.	Skill Development	4.25	1.935
9.	Work-life balance	3.98	0.936
10.	**Quality of Work-life**	**4.06**	**1.629**

(Source: Primary data)

The descriptive statics of the primary data is tabulated in table 3. From the above table, it is found that the executives of the selected automobile organizations better perceived the e-learning practices, job security, job satisfaction, and skill development, while compared to all other chosen factors. However, they have exhibited more than moderate level of perception towards all the chosen factors of the research. Among the factors of career development practices, they have better perception towards e-learning practices with the highest mean score of 4.12, which is followed by training (3.98), and continuing education (3.68). The executives perceive least perception towards continuing education while compared to all other factors of career development practices, so the automobile organizations can provide more opportunities for their permanent employees to pursue higher education in regular or part-time, distance or through online related to their job domain.

Among the factors of quality of work-life, the executives exhibited better perception towards skill development with the highest mean score of 4.25, which is trailed by job satisfaction (4.13), job security (4.04), work-life balance (3.98), and health & wellbeing (3.89). The overall mean score of career development practices, and quality of work-life are 3.93, and 4.06 respectively. Among the above given factors, the executives exhibited least deviation towards the perception of work-life balance with SD of 0.936, whereas the highest SD exhibited at continuing education.

Results and Discussion

In the present research, “two-step approach” to structural equation modeling developed by Anderson and Gerbing (1988) is adopted, in which first step is development of a measurement model and the second step is development of full structural model, whereas the measurement model deals with the latent variables and their indicators, and the structural model deals with all hypothesized relationship between all latent variables and its observed variables. Confirmatory Factor Analysis (CFA) model is a pure measurement model, where there are unmeasured covariance between each possible pair of latent variables. Evaluation of the measurement model is evaluated like any other SEM model through goodness of fit indices. Full structural model helps to ascertainthe overall fitness of the causal model with the sample data. The researcher developed and tested above-mentioned SEM models using IBM AMOS 23.0.

3.1 Confirmatory factor analysis (CFA)

The researcher conducted Confirmatory factor analysis for the two latent variables (i.e. career development practices, and quality of work-life) of this study, in order to identify the best indicator for a particular construct. After that, overall fit of all variables of the study was identified through full structural model.

The results of CFA of the two constructs indicate a highlevel of fit which is presented in table 4. The absolute fit index of RMSEA (0.041) proved that the fitness between model and the data is good.The incremental or comparative fit indices such as TLI (0.933), CFI (0.943), andNFI (0.928) are having the values more than recommended value0.90, which indicates perfect fit. The normed chi- square (CMIN/DF) of2.437 also falls under the recommended range of maximum 3.0.

Table 4. Model fit summary of CFA

Model	χ^2	df	χ2/df	NFI	CFI	TLI	RMSEA
Model 1	723.789	297	2.437	0.928	0.943	0.933	0.041

3.2 Full Structural model

Structural model of the study was developed as two factor model with two factors, namely career development practices, and quality of work-life. The results of the full structural model of the study presented in table 5, from which it is found that the data of the research fits with the model very well. i.e. TLI (0.928), CFI (0.957), NFI (0.944), RMSEA (0.035) andnormed chi- square (CMIN/DF) of 2.442.

Table 5. Model fit summary of Full Structural Model

Model	χ^2	df	χ2/df	NFI	CFI	TLI	RMSEA
Model 1	725.274	297	2.442	0.944	0.957	0.928	0.035

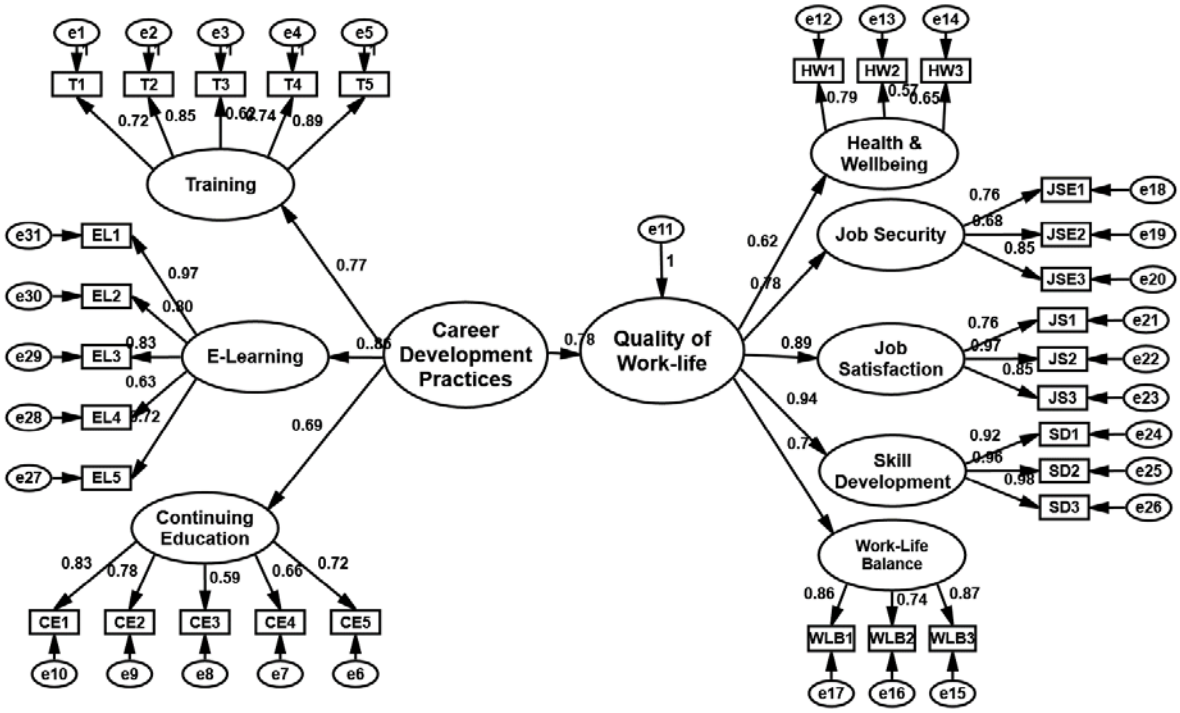

Figure 2. Full Structural model

The full Structural model of the present research is illustrated in figure 2 with its standardized coefficients. The standardized coefficient between variables and factors of the latent variables are more than 0.5, which confirms the convergent validity among all the variables with its latent variables.

The factors of career development practices such as training, e-learning and continuing education are also having standardized regression coefficients more than 0.5, and based on the values of coefficients it is found that e-learning practices is having significant impact on career development practices while compared to other two variables, namely training, and continuing education.

The factors of quality of work-life such as health & wellbeing, job security, job satisfaction, skill development, and work-life balance are having the standardized regression coefficients more than 0.5, and also it is evident

that skill development and job satisfaction plays a critical role in quality of work-life of the executives while compared to other factors.

The standardized regression coefficient value between career development practices and quality of work-life is 0.78, which proved that career development practices has positive impact on quality of work-life, which means one unit of increase in career development practices increase 0.78 units of perception of quality of work-life among the executives of the Automobile organizations in Chennai city. Therefore, it is proved that the main hypothesis of the study is proved at 1% significant level.

4. Conclusions

Ever changing business scenario demands the development of professions in the industry in terms of upgradation of their knowledge, skills, and competencies, therefore career development practices for all kind of employees are the need of the hour, and particularly it is very crucial for the executives who takes major decision of the organization at different functional level. The retention of employees is a big deal in today scenario, because of availability of plenty of job opportunities for the talented man power, so in order to retain the talents available in the organization, the organizations are striving to establish and maintain better quality of work-life in the organization.From the present research, it is proved that the career development practices of the Automobile organizations are having significant positive impact in the perceived quality of work-life among the executives, so the organizations in order to enhance the quality of work-life of the employees, apart from the other factors such as health & wellbeing, job satisfaction, job security, work-life balance, they also should focus on career development practices of the employees in the organization.

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E-LEARNING USING PICTIONARY AND GOOGLE CLASSROOM – A FLIPPED CLASSROOM METHODOLOGY

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ABSTRACT:
Corporate English, the need of the hour demands good business vocabulary, idioms and phrasal verbs (V-IP) from the students at the time of placement. Hence it is highly important for the pre-final year to be tuned with this V-IP. The objective of the study is to motivate the students to learn without forced environment with edutainment. Hence Pictionary, the picture game is used through Google Classroom among the students to learn V-IP. Further, this study empirically proves that the usage of the tool among the experimental group has shown a significant result compared to the control group using direct method. The focus of this paper is to let the students learn corporate words to fine-tune their language using Pictionary game through Google Classroom tool to have an edutainment learning style in a flipped classroom methodology.
Key words: Pictionary, Google Classroom, Edutainment, Flipped classroom, Vocabulary

INTRODUCTION:

English proficiency among the students is applauded when the students speak good English with good vocabulary, idioms and phrases. Even the corporate scenario demands English in such aspect only. A student has to be honed not only with grammatical competency but also with vocabulary, idioms and phrases in order to rise up to the expectation of the corporate/business worlds. Using edutainment methodology is a remarkable winning strategy adopted for learning language nuances. As a result, many researchers have worked on vocabulary learning and edutainment. Testing empirically the effectiveness of learning V-IP through an online tool- Google class using Pictionary using edutainment methodology in a flipped classroom setup is the primary focus of the paper.

LITERATURE SURVEY:

Some researchers have experimented on vocabulary learning as well as on edutainment, a term coined by Robert Heyman. As Colace states, “Edutainment is described as a type of entertainment which is designed with the aim of educate by including entertainment variety such as multimedia software, internet sites, music, films, videos and computer games and TV”(Colace 2006: 1). Tuzun states the reason for using computer games in education and training as follows: 1.Teaching methods go towards learner centred teaching styles which emphasize learner role moreactively than teaching methods 2. Computer games can be used as effective tools in teaching complex subjects.3. Computer games increase the motivation of learners. (Tuzun 2006: 221)

Aksakal states that, “It is pointed that subjects containing entertainment attract consumers’ attention more and events making the consumers experience are more permanent and recollective” (Aksakal 2015: 1233). Rahman states about the usage of e-Pictionary as, “The use of e-Pictionary to teach vocabulary has helped the participants (primary school) to remember the names of the pictures shown as they can see the characteristics, colours and special features of the pictures” (Rahman 2016:150). Centre represents the usage of picture dictionary as, “The use of a picture dictionary can be an effective or alternative way in teaching vocabulary as visual imagery assists learners in learning word meaning and in making better predictions and inferences” (Center 1999). Further, Fehr and et.al have proved in their research that computer-adaptive programme is effective for student’s learning of vocabulary.

Wang and et.al., have proved empirically in “Learn British English Wordpower” that IC method in English teaching has positive effect. Lin and et.al. reveal in their study that, “learning difficult words with textual definitions and videos is more effective than learning them with textual definitions and pictures and with textual definitions alone” (Lin 2012: 352). Bakhsh states about the usage of specific games in vocabulary learning that, there are five games amongst many to be used to teach vocabulary e.g. Hot Potatoes, Memory Challenge, Last One Standing, Pictionary, and Bingo. They further state that using them will enable young learners to acquire the lesson with fun where they can remember all the vocabulary easily (Bakhsh 2016: 124-125). Zainuddin and et.al., states that, “Analysis of the impacts showed that flipped classroom brought positive impacts toward students’ learning activities such as achievement, motivation, engagement, and interaction”(Zainuddin 2016: 313).

The researchers have identified that no research has been done on the effectiveness of the usage of Pictionary with google classroom that too for pre-final year students to learn corporate English. In response, this study is done to bridge the gap as well as to share information among the teacher's forum regarding the effective teaching of vocabulary with edutainment.

NEED OF THE STUDY:

Vocabulary - Idioms and Phrases(V-IP) learning is incorporated in the syllabus for the third year students of MEPCO Schlenk Engineering College, Sivakasi under the paper Professional Communication Skills Lab. The students who are at the verge of sitting for placement take up this lab. In that crucial time, while they break their head for learning their engineering subjects, little focus is given for learning English by the students. Further, they will not be interested to sit and learn in English classroom. They know pretty well that they need to be fine-tuned in their language with respect to corporate English but the stressed and crushed mind set will not permit them in their lead. Hence, an alternate pedagogy has to be implemented to keep them on toes for learning and using VIP. The researchers have identified this to be the field which demands special attention from the teacher's desk.

RESEARCH PERIOD:

This research was carried out within a period of one month.

HYPOTHESIS:

- Learning vocabulary-idioms and phrasal verbs within a stipulated time, through Pictionary using Google classroom is good compared to the direct method

EXPERIMENTAL AND CONTROL GROUP:

Two groups are selected for this study. One is the experimental group comprising of III year Mechanical Engineering students belonging to batch 2015-19 whereas another is the controlled group of III Information Technology Engineering students belonging to the same batch. Both these sets belong to upper-intermediate level of English proficiency. The same word list was given to both the experimental and control group. A pre-test was conducted from the vocabulary, idiom and phrases from the same list. After the application of this study strategy, a post-test was conducted from the same list. The results showed a significant development altogether. From the results attained, it is obvious that there is a significant development in the usage of Pictionary tool.

METHODOLOGY ADOPTED FOR CONTROL GROUP:

In the control group the students were taught using direct method. The teacher explained the concept using direct method. The interest which the students showed compared to the usage of Pictionary was relatively less. While conducting test the interest of the students to identify the answers was really low as they could not have in mind without the pictures representation.

METHODOLOGY ADOPTED FOR EXPERIMENTAL GROUP:

The researchers found that giving many vocabularies and forcing the students to study the same will not be an advisable task as so many words will lead to ambiguity of using the same. Under such limitations, the researchers have chosen words, idioms and phrasal verbs each 50 in nos., related to the corporate English. The lists are given in Annexure 1,2,3.

PICTIONARY:

Pictionary is a word game which is framed with basic rules. A team member will be acting as the picturist. The others will play the role of participants. Similarly n-number of teams can be frame starting from 2 to 15 members in each team. The card taken will have the word based on which the picturist must draw the picture. Based on the drawing the team members must identify the exact word. The team which finds it out first will be the winner of the task. Similarly such tasks will be conducted and the overall winning team will be announced at the end. Though this is the rule, some modifications are made on the need base. Students instead of using board or other things, they will simply respond using open source tools. This game blended with online tool google classroom is effectively used for learning vocabulary among the pre-final year engineering students as a mode of edutainment.

GOOGLE CLASSROOM:

Google classroom tool is used by n-number of teachers and students and it is identified as a good learning forum. As it is easily reliable, it is taken up for this study as the students can access it readily. As all the students have got the gmail account, this tool is finalized to be used for learning. In addition, this tool enhances the students interaction as well helps them to submit assignments on time. In it, the teacher creates the forum and invites the

students using his/her e-mail id. In it, the teacher could add a word/idiom/phrase along with the picture pertained to it. Following the teacher, the students could also share information and picture related to VIP.

WEEK 1 – TASK A:
The students are assigned with first vocabulary list (25 words) which they have to go through for understanding. After that the students are supposed to submit one meaningful sentence for each vocabulary. After two days first list of idioms (25 idioms) will be sent to the students. The students must frame one meaningful sentence using the idiom and must post it to the teacher. As this is a common forum all the students can view it. The students can post other related images to the vocabulary or idiom for better understanding. These all are done in the flipped classroom strategy.

Then an activity will be conducted in the two consequent hours classroom where two members will be joining as a team and will use one computer. The teacher will post any five pictures which they have studied for vocabulary as well as for idiom. When the students submit the answers, the first three teams will be considered as winners. But the winner list will be revealed once after all the students submit their assignments. This is to motivate all the students to work wholeheartedly as well as with interest. This process, represented as first Online Activity(A) is repeated for all the other weeks.

WEEK 2 TASK - B:
The students are assigned with second list of idioms (last 25 words). After that the students are supposed to submit one meaningful sentence for each idiom. After two days first list of phrasal verbs (25 nos.) will be sent to the students. The students must frame one meaningful sentence using the phrasal verb and should post it to the teacher.
Then as per the OA already stated, the students will be given five words from phrase and 5 from idiom to identify their level of understanding. The students will be given the group task and the same process is repeated for identification of winners team.

WEEK 3 TASK - C:
The students are assigned with second list of vocabulary (last 25 words). After that the students ar supposed to submit one meaningful sentence for each idiom. After two days second set of phrasal verbs (25 nos.) will be sent. The students will frame each sentences with the usage of each phrasal verb and post it to the teacher. As per the OA method students are motivated for being a winner afterwards.
The results of pre and post-tests with 30 questions, from the same set of vocabulary, are analysed for both the groups to identify the effectiveness of the tool among the students.

Table 1: Pre-Tests Results

	Question No.→	1-10	11-20	21-30		
Vocabulary	Experimental	17	24	19		
	Control	27	15	16		
Idiom	Experimental	22	25	13		
	Control	31	18	11		
Phrase	Experimental	18	27	15		
	Control	32	19	9		

Table 2: Post-Tests Results

Modules	Question No.→	1-10	11-20	21-30		
Vocabulary	Experimental	33	15	12		
	Control	32	11	13		
Idiom	Experimental	41	10	8		
	Control	37	14	7		
Phrase	Experimental	39	7	13		
	Control	40	12	6		

Statistical interpretation:

Pictionary using Google Classroom:

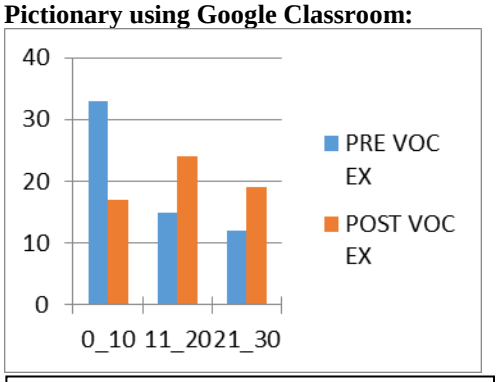

Fig.1. Pre and post-tests comparison of vocabulary Experimental group

Traditional classroom method:

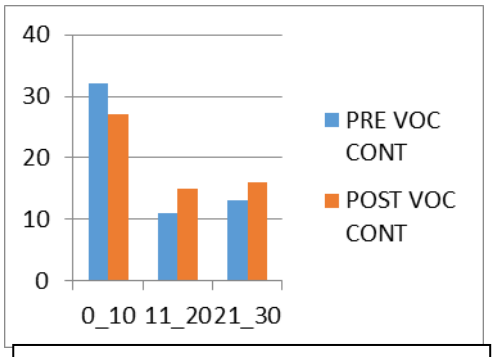

Fig.2. Pre and post-tests comparison of vocabulary Control group

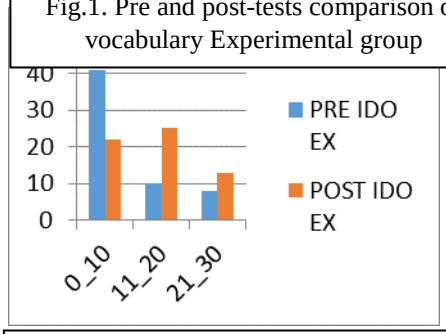

Fig.3. Pre and post-tests comparison of idiom learning by experimental

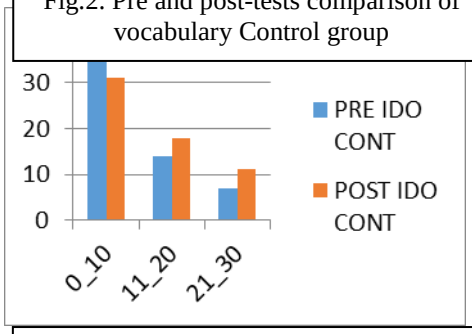

Fig.4. Pre and post-tests comparison of idiom learning by control group

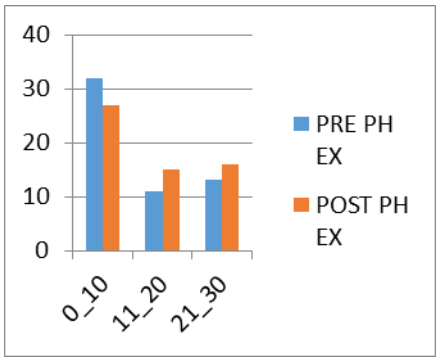

Fig.5. Pre and post-tests comparison of phrases learning by experimental

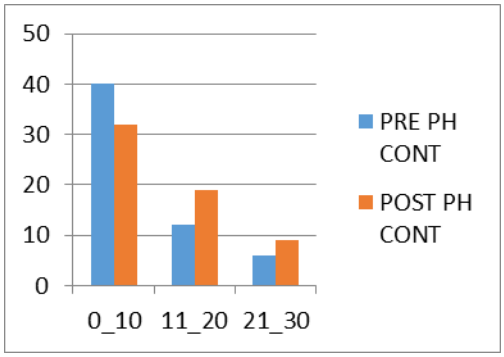

Fig.6. Pre and post-tests comparison of phrases learning by control group

The results of the exams are analysed using one sample t-test using SPSS software.

One-Sample Test

		Test Value = 30		
		t	df	Sig. level
PAIR 1	PRE – VOCABULARY (EX)	1.525	2	.267
	PRE – VOCABULARY (CONTROL)	1.694	2	.232
PAIR 2	POST – VOCABULARY (EX)	4.804	2	.041
	POST – VOCABULARY (CONTROL)	2.775	2	.109
PAIR 3	PRE – IDIOMS (EX)	.967	2	.435
	PRE – IDIOMS (CONTROL)	1.177	2	.360
PAIR 4	POST – IDIOMS (EX)	2.774	2	.109
	POST – IDIOMS (CONTROL)	1.707	2	.230
PAIR 5	PRE – PHRASE (EX)	1.052	2	.403
	PRE – PHRASE (CONTROL)	1.018	2	.416
PAIR 6	POST – PHRASE (EX)	2.774	2	.109
	POST – PHRASE (CONTROL)	1.502	2	.272

Table 3. One sample t-test results

From the attainment of the significance level as well as the t-value it is quite obvious that this research methodology is successful among the learning community. From the analysis it is obvious that the scores earned by the students of experimental and control groups are relatively low in the pre-tests for vocabulary whereas the scores earned by them in the post-tests using the different strategies show a significant development. But comparing the post-test scores of experimental and control group the experimental group has secured a significance level of 0.041 whereas the control group has secured 0.109. Similarly, the significance levels of the experimental group in post-test for idioms as well as phrasal verbs learning are 0.109 and 0.109 whereas for the control group they are 0.230 and 0.272 respectively which is high compared to the experimental group. Hence the hypothesis is proved.

The t-values for the experimental group in post-tests for Vocabulary, idiom and phrasal verbs are 4.804,2.774 and 2.774 whereas for the control group the t-values are low with 2.775,1.707 and 1.502 respectively. As a whole, the level of performance of the experimental group with Pictionary methodology using Google classroom is high compared to the Direct method.

Advantages of the study:

- Creates interest among the students

Google classroom is a free tool – so all the students can access it

- Students can access at any time
- One sharing is seen by all the others
- Teachers can have control over the students' reports

Limitations of the study:

- Needs access to system or mobile phone with internet for working

Conclusion:

The researchers have identified through this research article that there will be significant development in the level of attainment of vocabulary among the pre-final year engineering students if Pictionary game is used using Google classroom in an edutainment environment. Though many analyses are carried out for learning vocabulary, idiom and phrases, this work is distinct as it focuses on the enrichment of English learning adoptable to corporate style exclusively oriented towards placement. The students make use of V-IP in their language without any hesitation which is clear in their answering modules. The hypothesis that "Learning vocabulary-idioms and phrasal verbs within a stipulated time, through Pictionary using Google classroom is good compared to the direct method" is proved through the level of significance attained as well as from the increase in t-value. Future researchers can further explore the usage of Google classroom as a flipped learning methodology to learn grammar, to analyse and to give feedback on given texts as well as for error correction practises.

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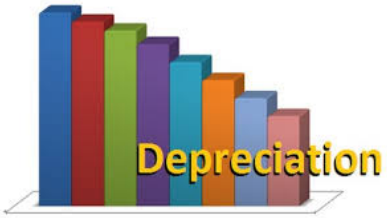
Annexure 1:Business Vocabulary List and pictures samples



1. accordingly
2. accustomed
3. appraisal
4. assertiveness
5. asset stripping
6. blunt
7. booming
8. boost to
9. brand awareness
10. breach
11. consistently
12. counterpart
13. diversify
14. downsize dramatically
15. ergonomically
16. depreciation
17. hefty
18. intrinsically
19. prerequisite
20. prioritise
21. severance
22. shrewd
23. streamline
24. surveillance
25. time-consuming
26. unwind
27. vital
28. volatile
29. well-being
30. undervalued

31. premium
32. interfere with
33. intimidate
34. intrigue

Annexure 2: Business Idioms List

Annexure 3: Business Phrases Verb List

IMPACT OF QUALITY OF E-LEARNING SYSTEMS ON PERFORMANCE OF PUBLIC SECTORS BANKS IN CHENNAI CITY, INDIA

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ABSTRACT
The technological era demands continuous learning of the workforce irrespective of the industries they work. It even applicable to the public sector enterprises which needs to compete with its counterpart in private sector. The e-learning systems are emerging technology in India which facilitates continuous learning through internet and electronic networks. The main aim of the study is to examine the impact of quality of e-learning systems on organizational performance of the selected public sectors banks at Chennai city. The survey method of data collection was adopted through structured questionnaire with the sample size of 150 employees from the selected public sectors banks from Chennai, India. The Quota sampling technique was adopted to choose the samples from the population. The percentage analysis and structural equation modeling was adopted to analyze the primary data of the research. The results of the study explored that the quality of e-learning systems is having significant positive impact on performance of the public sector banks at Chennai city. So, with the evident of this survey results it is recommended that the careful design, develop, and implementation of customized e-learning systems will enhance the learning of employees which may deliver significant positive growth of performance of the public sector banks at Chennai city, India.
Keywords: E-learning, E-Learning Quality, Organizational Performance, public sector banks, Chennai

INTRODUCTION

The rapid technological change around the globe offers lot of products and services. Changes in the technology demands the people who are part of those businesses to unlearn and relearn new concepts, features, schemes, etc. Every individual in the society doing business or working in an organization must learn new technologies in their domain irrespective the industries or sectors work. Earlier the employees work in the public sector rigid towards continuous learning and the updation of technology in public sector was also in slow pace, while compared to private sector, but now in order to compete with their counterpart (i.e. private sector), the employees in public sector industries are forced to update their Knowledge, Skills, and Attitude (KSA) according to the trends in the industry. The Information, Communication and Technological (ICT) tools offered internet-based learning systems with lot of advantages such as learning of the employees in their own pace, dividing the course content in to small modules, and having self-assessment questions/quiz at the each modules, audio and video visual aids to better explain the concepts, which creates interest among the users, etc., The ultimate aim of the e-learning systems to improve the competency of the employees which may enhance their productivity and performance. The improvement of the performance of the employees may result in better performance of the organization. Obviously, the end result of the e-learning systems is based on its quality. The foremost aim of this research study is to explore the impact of quality of e-learning systems on performance of public sectors banks in Chennai city.

LITERATURE REVIEW AND MODEL DEVELOPMENT

Literatures related to E-Learning Systems and its quality

Nikolic et al. (2018), the main aim of the survey was to present current state of quality models of e-learning systems. Development of the quality models of e-learning systems was explored where some future directions were suggested. The quality models of e-learning systems were analyzed based on their different perspectives and dimensions according to the survey. Based on the survey the quality models applications were proposed according the context of the e-learning systems. Based on the investigated studies the quality characteristics of

the e-learning systems were extracted. Different pedagogical characteristic were addressed for some studies. Learner satisfaction was addressed only in several studies. Only one study addresses software usability. As the main results of the survey one can conclude that there is large numbers of quality models of the e-learning systems. Finally, future research direction was suggested based on the results. In the future research the quality models should address different technical aspect of the e-learning systems which could assure sustain development of the systems due to rapid changing in information and communication technologies.

Hadullo et al. (2017) presented in the study a model for assessing LMS assisted e-learning through studying the existing e-learning contexts and models for quality evaluation. Therefore this research was based on the six dimensions of quality and their constructs targeted: the P3 Course Evaluation Model, the PDPP evaluation model, the e-learning Quality Framework, the TMLE framework and the e-learning maturity model. A complete e-learning quality assessment model was attained which is to be validated by conducting a survey among 200 respondents from JKUAT University in Kenya by structured equation modeling.

Alla (2013), in his study focused on the concept of system quality and discusses the main dimensions of system quality (Usability, Accessibility, Reliability, and Stability) and evaluates the impacts of these dimensions on the efficiency of e-learning system. The study found that Usability is the strongest dimension that affects system quality of elearning. The study used survey method for data collection, questionnaires was distributed to students and teachers and analysed by using Statistical Package Social Sciences (SPSS) software. This paper concludes that efficiency of e-learning system could not be fulfilled without achieving high level of system quality that attracts learners to increase their usage of e-learning

Alla and Qais Faryadi (2013), the main purpose of their study is about the concept and the main dimensions of information quality (Accuracy, Relevancy, Accessibility, and Validity).It evaluates the impacts of these dimensions and the efficiency of e-learning system. The study found that Accuracy is the strongest dimension that affects the information quality of e-learning system followed by Accessibility, Validity, and Relevancy respectively.

2.2. Literatures related to Organizational performance and its dimensions

Kim et al. (2017), the purpose of this study is to examine the relationships among a learning organization, knowledge and financial performance using the Dimensions of the Learning Organization Questionnaire and its abbreviated version. This study used a secondary data set and performed second-order factor analysis and structural equation modeling for testing the proposed relationships. The study found that a learning organization has a positive effect on knowledge performance; knowledge performance has a positive effect on financial performance; and knowledge performance fully mediates the relationship between a learning organization and financial performance.

Ziemak (2015), the aim of this article is to analyse the theoretical views and results of empirical research concerning the relation between organisational learning (OL) and organisational performance (OP). Methodology: The study was carried out through extensive literature research, including relevant literature review from databases such as ProQuest, Elsevier, Emerald and EBSCO (the phrases: “organisational learning”, “learning organisation” and “organisational performance” were searched in the keywords, titles or abstracts). Findings: From a theoretical point of view, the relation between OL and OP is neither obvious nor clear, but the analysis of the empirical studies allows one to assume that OL has an essential impact on OP. However, differences in the strength of the relation were shown and some contradictions related to the presence of the relation between OL and selected (mostly financial) performance aspects identified. Furthermore, the article discusses the significant differences and inconsistencies in the methods of measuring OL, measuring OP, selecting contextual factors and adopted methods of data analysis. Implications: Inconsistencies and gaps found in the studies of the relationship between OL and OP made it possible to designate the direction for promising further research. Value: The article presents valuable insight through its in-depth, critical analysis of the organisational learning and organisational outcomes. First and foremost, this indicates that the formula of the previous empirical studies does not allow for the development of precise solutions pertaining to organisational learning management for the benefit of OP improvement.

Khatoon and Farooq (2015), in their study explored the influence on organizational performances. The constructs considered in the study include financial perspective, customer perspective, internal business process perspective and learning and growth perspective on performance in the organization. This is for setting up a complete performance evaluation system and forming a whole set of performance indices to assess strategies so that the vision and strategies of organizations could be achieved. The purpose of the study is to explore the extent to which balanced scorecard has been used in manufacturing and service industry vis –a – vis public and private sector in India and to explore the relationship between balanced scorecard and its constructs with organizational performance. Statistical tools such as t- test and Correlation were applied to achieve the objectives. The results obtained indicated a positive relationship between the balanced scorecard and organizational performance with performance depending on the four perspectives. The researchers have concluded that the adoption of the balanced scorecard by companies can be a means to improve organizational performance. The adoption will assist the business organizations to formulate practical strategies to enhance their performance by focusing on the four perspectives of Balanced Scorecard.

Wageeh A. Nafei (2015), in his study explored OL as one of the most important organizational factors that can direct the behavior and attitudes of the employees to improve OP. There are two constructs relevant to OL, namely, Adaptive Organizational Learning (AOL) and Generative Organizational Learning (GOL). This research is practical, according to its purpose, and descriptive, according to its data collection method. Out of the 312 questionnaires that were distributed, 250 usable questionnaires were returned, a response rate of 80%. The findings reveal that the aspects of OL (AOL and GOL) have a significantly direct effect on OP. Accordingly, the study provides a set of recommendations including the necessity to pay more attention to AOL, in general, and GOL, in particular, at healthcare organizations in Al-Taif Governorate, KSA. This will achieve its success currently and in the future, besides attaining a competitive advantage.

Akthar et al. (2012), the present study is conducted to investigate the impact of organizational learning on organizational performance of higher education institutes of Pakistan. Non-probability purposive sampling strategy was adopted, and a sample of size 150 was chosen amongst the employees. The response rate obtained was 66 percent. The data were collected by using DLOQ. Regression analysis was performed to estimate the impact of explanatory variable ‘organizational learning’ on the response variable ‘organizational performance’ with “Culture” as a moderator. The results revealed a significant positive impact of the organizational learning on organizational performance. Inquiry and dialogue, and systems connection were the two dimensions which were found to be highly significant; however, five of them (continuous learning, team work, embedded systems, empowerment and leadership) were insignificant in relation to the organizational performance.

Velnampy and Nimalathasan (2007), in their research initiated on “Balance score Card and organizational performance as a comparative study of state and private sector banking Organizations in Srilanka” with a samples of 290 respondents in 40 banking organizations in North and eastern provinces. The results from the operational hypotheses indicates that total perspectives (CP, IBP, LGP, and FP) have a significant relationship with organizational performance which means, as the total perspectives increase organizational performance increases in state banks whereas learning growth perspectives significantly contributes to total perspectives in both banks are important contributors to positive organizational performance, particularly learning growth and financial perspectives are meaningfully contributing to the performance of the private banks.

Literatures related to quality of e-learning systems quality and Organizational performance

PeiKoa and ChenKob (2012), in their study aimed to discuss the relationship between organizational innovation on training quality of e-learning and organizational commitment in Taiwan. Questionnaire survey was conducted on service industry in Taiwan based on random sampling. A total of 1,500 questionnaires were distributed to directors, general employees, and human resource personnel in 150 companies; totally 543 valid samples. The valid return rate was 36.2%. The data were analyzed by the structure equation modeling. Based on the results, the findings are as follows: (1) some organizational background variables have significant effect on training

quality of e-learning; (2) different organizational background variables have no significant effects on organizational commitment; (3) some organizational background variables have significant effect on organizational performance; (4) training quality of e-learning has significant correlation with organizational commitment; (5) partial training quality of e-learning has significant correlation with organizational performance; (6) organizational commitment has significant correlation with organizational performance; (7) partial training quality of e-learning has significant correlation with organizational performance through the mediating effects of organizational commitment.

Liu et al. (2012), presented a framework considering how organizational factors affect the quality and service of e-learning systems and how these factors influence organizational benefits in the view of IS success model and resource-based theory. A questionnaire survey of 120 Taiwanese companies was performed to validate the framework. The results show that top management support, information security policy, and institutional policy are positively related to system quality, while top management support, organizational learning culture, and institutional policy are positively related to system service. Additionally, system service is significantly related to organizational benefits. Our model provides two novel aspects of e-learning study. Firstly, we extend IS success model by incorporating four organizational factors as antecedences influencing system quality and system service. Secondly, the model is framed and examined on an organizational level, which provides a top-down view for managers when designing and implementing e-learning systems in the organizational context.

MacDonald and Thompson (2005), in their paper talked the necessity for quality e-Learning experiences and used the Demand-Driven Learning Model to assess an online Masters in Education course. Multiple data collection procedures were used to know the experiences of stakeholders in this case study: the learners, design team, and facilitators. It is originate that all five dimensions of the model (structure, content, delivery, service, and outcomes) must work in concert to instrument a quality e-Learning course. Key themes comprise evolving learner needs, the search for connection, becoming an able e-participant, valued interactions, social construction of content, integration of delivery partners, and mindful weighing of benefits and trade-offs. By sharing insights into what is needed to design and deliver an e-Learning experience, our conclusions add to the growing knowledge of online learning. Using this model to assess perceptions of quality by key stakeholders has led to insights and recommendations on the Demand Driven Learning Model itself which may be beneficial for researchers in this area and strengthen the model. In this current study they used a credible model, the Demand-Driven Learning Model (DDLM), and its companion evaluation instrument to design and assess an online course. Numerous data collection approaches were used to understand the experiences of key stakeholders in this case study: learners, design team, and facilitators. In addition to adding to the growing knowledge of online learning, our findings highlight additional elements that could be combined into the DDLM to further refine the model.

2.3. Conceptual model development

According to Condon (2013), knowledge on the following elements are required to review eLearning Courseware are Learner support, Construction strategies, Learner profile, Instructional design, Ergonomy, Media, Interoperability, Legal aspects, and Maintenance. From the review of earlier researches it is found that the various authors identified different elements of the examining the e-learning systems quality.

According to MacDonald et al. (2001), in their Demand-Driven Learning Model (DDLM) with five factors namely structure, content, delivery, service, and outcome of e-learning systems.

It is described as given below:

- **Structure:** It refers to layout of the e-learning systems into relevant modules or chapters.
- **Content:** It refers to the information mentioned in the e-learning courseware.
- **Delivery:** It refers to presentation of the information through audio-video visual aids.
- **Service:** It refers to features provided by the e-learning systems.
- **Outcome:** It refers to the expected outcome of the e-learning systems.

The organizational performance of the organization can be assessed by the Balanced Score model developed by through Kaplan and Norton (1996), which has the following dimensions

- **Financial perspective**, including traditional financial measures such as revenue growth, return on investment or return on assets, market share, and earnings per share,
- **Customer perspective**, with measures of importance to customers such as timeliness, quality, performance, cost, and service,
- **Internal business process perspective**, with measures of the critical internal activities and processes that the organization uses to meet its customers' expectations, and
- **Learning and growth perspective**, which measures the organization's ability to adapt and innovate for the future; this could include time to market for new product development, workforce training and development, and process improvement.

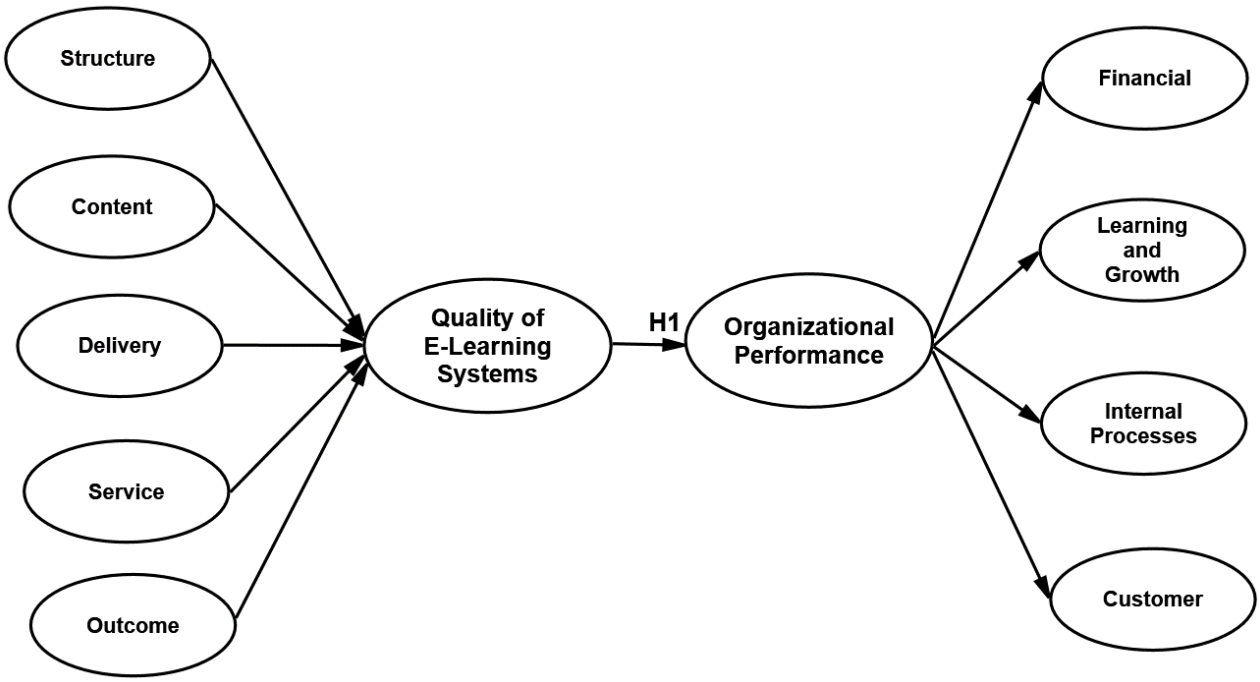

Figure 1. Conceptual Framework

Based on the literature, the above-mentioned conceptual model was developed and the following hypothesis is formulated which has to be tested through the structural equation modeling technique.

H1: The quality of e-leaning systems has positive impact on organizational performance of the public sector banks at Chennai city.

3. RESEARCH DESIGN AND METHOD

The researcher adopted descriptive research design in order to describe the impact of quality of e-learning systems on organizational performance of public sector banks at Chennai city. Both primary and secondary data is used to prepare the research paper. The primary data was collected through survey method of data collection using the structured questionnaire, whereas the secondary data was collected from various journals, magazines, books, previous research reports related to the chosen research context. The conceptual model was developed based on the secondary data, whereas primary data was analyzed through appropriate statistical tools with the help of IBM SPSS 20.0 and IBM AMOS 20.0 to accomplish the research objectives.

The quality of e-learning systems construct was assessed through MacDonald et al. (2001) Demand-Driven Learning Model (DDLM) with five factors namely structure, content, delivery, service, and outcome of e-learning systems. Organizational Performance of public sector banks was assessed through Kaplan and Norton (1996) Balanced Scorecard model with four factors/perspectives such as financial, learning and growth, internal processes, and customer. The sampling units (i.e. public sector banks) was chosen based on India's Best bank 2016 survey done by Business today and KPMG. Under the segment 'Bank of the Year – public Sector banks', the banks such as State Bank of India, Punjab National Bank, and Bank of Baroda were ranked as top three

public sector banks of the year based on growth in % of deposits, growth in operating profit, Cost to Income ratio, etc.

Table 1. Sampling Distribution

S. No	Bank Name	No. of Branches	No. of Samples
1	State Bank of India	10	50
2	Punjab National Bank	10	50
3	Bank of Baroda	10	50
	Total	30	150

(Source: Primary Data)

The target population of the research refers to all the employees working in selected banks of any branches in located in Chennai city. The employees with at least one year experience in the present bank and working in junior, middle, or senior level in the branch offices of selected branches are considered for inclusion of sample. The researcher adopted quota sampling techniques (i.e. Non-probability sampling technique) to select the samples from the target population. The researcher has taken five branches from each banks and from each branch office five employees were chosen. The sampling distribution of the survey was described in table 1.

Table 2. Reliability Analysis

S. No	Factors	Cronbach Alpha
1	Structure	0.749
2	Content	0.860
3	Delivery	0.793
4	Service	0.904
5	Outcome	0.834
6	Financial	0.888
7	Learning and Growth	0.764
8	Internal Process	0.803
9	Customer	0.914

(Source: Primary Data)

The pilot study of the research was conducted with the help of thirty samples (i.e. ten samples from each selected bank), which was used to analyze the reliability of the questionnaire. Table 2 presents the outcome of reliability analysis of the all the factors used in the constructs. The Cronbach alpha coefficient values of all the factors used in the research are found to be more than 0.7, which means that the questionnaire used in the research is reliable.

RESULTS AND DISCUSSION

Sample Profile

The results of any research is better explained or understandable by analyzing the profile of the samples, because bias in sample selection may reduce the accuracy of the results or limit the generalizability of the findings of the research. Therefore, the profile of sampled respondents are described using frequency analysis using IBM SPSS 20.0 software. The profile of the sampled respondents is summarized in table 3.

Table 2. Sample profile

S. No	Demographic factor	Frequency	Percent
1	**Gender**		
	Male	85	56.7
	Female	65	43.3
2	**Age Group**		
	Upto 30 Years	36	24.0
	31- 40 Years	52	34.7
	41-50 years	39	26.0
	Above 50 Years	23	15.3
3	**Educational Qualification**		
	Undergraduate	94	62.7
	Postgraduate	56	37.3
4	**Position in the bank**		
	Junior	84	56.0
	Middle	43	28.7
	Senior	23	15.3
5	**Experience in the Present bank**		
	1 – 5 years	82	54.7
	5- 10 Years	48	32.0
	Above 10 years	20	13.3
6	**Computer literacy**		
	Basic	56	37.3
	Intermediate	76	50.7
	Advanced	18	12.0
7	**Usage of E-learning systems**		
	1 – 3 Years	45	30.0
	3 – 6 years	79	52.7
	Above 6 years	26	17.3
8	**Overall satisfaction towards E-Learning systems**		
	Highly Dissatisfied	2	1.3
	Dissatisfied	4	2.7
	Neutral	6	4.0
	Satisfied	81	54.0
	Highly Satisfied	57	38.0
	Total	**150**	**100.0**

The results show that majority of the respondent were male which accounted for nearly about 56.7% of the total gender category. It is also found form the analysis that 34.7% of the respondent who were surveyed for the study fall under the age group of 31-40 years. With regards to the educational qualification 62.7% of the respondent

were graduate those who are employed in the bank and 56% of them are designated in the junior position in the selected banks.

It is also inferred from the analysis that about 54.7% of the employees those who surveyed for the study have 1-5 years of experience in the present bank where they are employed. The analysis also resulted out that 50.7% of the employee's knowledge or literacy was intermediate.

Moreover 52.7% of the found that the usage of e-learning system could be useful to them for 3-6 years and 54% of the employees opined that they were satisfied with regards to the E-Learning systems

4.2. Data analysis

The relationship between the constructs of the study are examined through the structural equation modeling (SEM) approach.

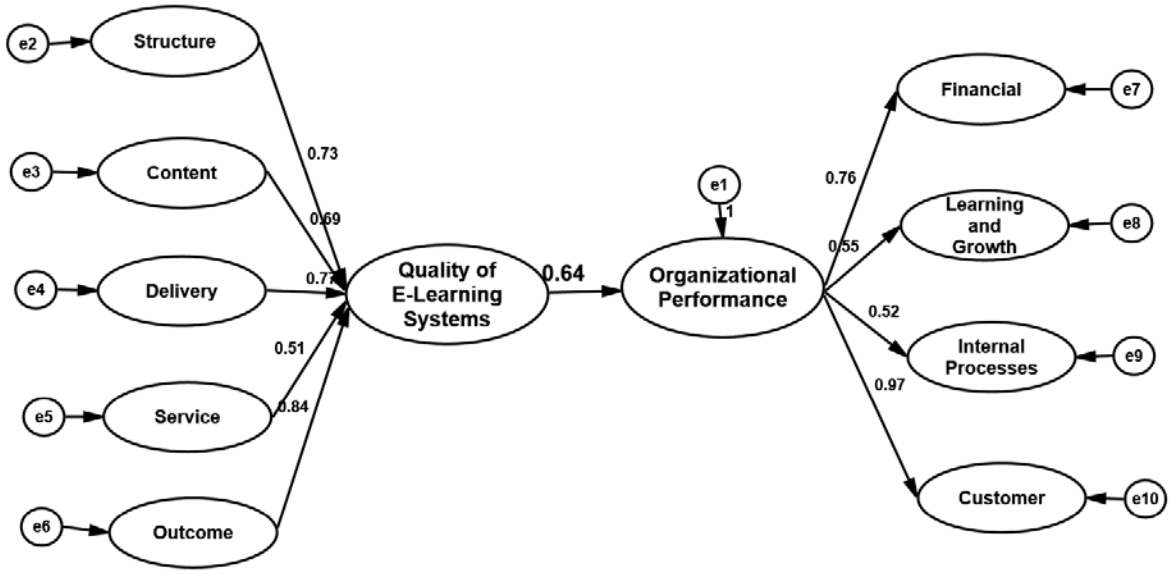

Figure 2. Structural Model with standardized regression coefficients

Table 2. SEM model coefficients of Conceptual model

Observed Construct		Latent Construct	Standardized estimate	P
Organizational Performance	<---	Quality of E-learning Systems	0.636	<0.001**-
Structure	<---	Quality of E-learning Systems	0.731	-
Content	<---	Quality of E-learning Systems	0.689	<0.001**
Delivery	<---	Quality of E-learning Systems	0.773	<0.001**
Service	<---	Quality of E-learning Systems	0.508	<0.001**
Outcome	<---	Quality of E-learning Systems	0.838	<0.001**
Financial	<---	Organizational Performance	0.757	-
Learning and Growth		Organizational Performance	0.554	<0.001**
Internal Process		Organizational Performance	0.518	<0.001**
Customer		Organizational Performance	0.968	<0.001**

Note: ** denotes significant at 1% level.

From the above SEM model, it is found that all the factors of quality of e-learning constructs such as structure, content, delivery, service, and outcome are having significant positive relationship with the main construct with the factor loading more than 0.5. Similarly, the factors of organizational performance are also having significant

positive relationship and all the above-mentioned associations are significant at 1% level. The results of the SEM also evident that the quality of e-learning systems has significant positive impact on organizational performance. The model fitness indices of the above SEM model such as Chi-square value (2.643), p value (0.211), GFI (0.939), AGFI (0.944), RMR (0.043), and RMSEA (0.034) are all with in the suggested values which indicates its goodness of fit of the developed conceptual model with the primary data collected through the present research.

CONCLUSION

There is no doubt, the employees can better perform in learning organizations, so obviously e-learning systems can enhance the performance of employees of the public sector banks, however, the quality of e-learning systems in terms of its structure, content, delivery, service, and outcome can enhance the quality of e-learning systems next level which creates interest among the employees, and boost the efficiency of the learning through the e-learning systems. Always, there is a hope that better learning ensures that acquiring adequate knowledge, skills, and attitude of the employees which can improve their productivity and efficiency. The organization is not a just single entity, so the performance of the organization is the aggregate performance of the individuals in the organization, which means if

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IMPLEMENTING KIRKPATRICK MODEL FOR EVALUATING DISTANCE EDUCATION IN GOVERNMENT INSTITUTION

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ABSTRACT
This study aims to measure the effectiveness of Distance Education Program within the Education and Training Centre for Administrative Staff in MORA has been running for more than five years. Therefore, evaluation research needs to be done to determine the effectiveness of the program. The research method is qualitative evaluative. The evaluation research model refers to the Kirkpatrick Four-Level consisting of Reactions, Learning, Behavior, and Results. Data were collected through questionnaires, documents studies, interviews, and observations. The end result of this study shows the following findings: At the reaction level with the indicator facilities, instructors competencies, and administration service were rated in a good category, while the distribution of certificates was not satisfactory. Level of learning with the indicator of instructor ability in managing learning, a flexibility of study schedule, a flexibility of exam time gets a good category. The examination results of participants were in accordance with expectations. The level of behavior indicates that participants are better in self-learning with e-modules than attending online discussions. In the last level result shows that after participants attending distance education, their knowledge and skills are improved. This study provides recommendations to improve the performance of online learning method in the future.

INTRODUCTION

According to the data gathered by the National Statistics Bureau, the number of government employees in Indonesia is 4,374,349 people. Government employees are civil servants whose competence should always be improved. Indonesia's geographical characteristics led to the high cost of employee competency improvement programs, the problem is that as a developing country, budget allocations in Indonesia focus more on infrastructure development than for the development of employee competencies. Online learning is considered cost-effective, especially in transportation costs and has more flexibility to choose the learning time. However, the application of online learning methods can be ineffective, if the timing is not properly scheduled, the learning materials are not updated, and the participants' learning motivation is lacking. Information technology has been used generally in learning over the last few years to reach cost-efficiency in improving employee competency (Huang, Huang, & Chuang, 2016) (Keengwe & Maxfield, 2014). Online learning on web-based platforms or e-learning for government's employees is expected to address the increasing need to improve the competence and quality of government employees. Researchers specifically conduct the research within the Education and Training Centre for administrative Staff at MORA

This research is interesting because MORA has a hierarchical unit of work in all of Indonesia's regions, starting from the central, provincial, district, sub-district, religious-based colleges, as well as schools. The number of employees at MORA according to the latest statistic data (the year 2016) was 229,245 people. This number is quite large when compared to other Ministries, but the number of instructors at the Education and Training Centre for administrative personnel is currently 12 people. There is a wide gap between the available number of Instructors and the personnel to serve, so leaders of Education and Training Centre in MORA develop training with e-learning for administrative staff, to reach more participants. Distance Education Program within the Education and Training Centre for Administrative Staff in MORA has been running for more than five years and implemented using the government budget of the Indonesian Republic. The problems faced in the implementation of distance education are heavy workload combined with limited time available, makes e-learning ineffective. Therefore, evaluation research needs to be done to determine the effectiveness of the program. Evaluation results are expected to assist management in making future program sustainability decisions. Educational evaluation is an effective way to provide evidence for all parties related to resource allocation, employee management, program quality assurance, and education policy decision-makers.

THE STUDY

Designing evaluation activities requires good technical, analytical, and skills to answer evaluation questions and creates appropriate evaluation techniques. (Azzam & Szanyi, 2011) (Romero-Gutierrez, Liso, & Chico, 2016) (Wise, Darling-Hammond, McLaughlin, & Bernstein, 1984). The method used in this research is the qualitative evaluative method. Qualitative methods are suitable for use in research designed to describe specific programs

using a variety of empirical data. The evaluation model uses Kirkpatrick Four-Level Model, which consists of reaction evaluation, learning evaluation, behavior evaluation, and result evaluation. This model is highly relevant to be used in evaluating training programs with e-learning (Kirkpatrick & Kirkpatrick, 2007). The advantage of this model is to use a systematic, more comprehensive process covering the cognitive, psychomotor, and affective aspects. The results of this research evaluation are expected to assess the effectiveness of the training program and obtain information to develop the training program in the future.

The study involved 151 participants who have attended two years learning in 2015 and 2016, which comes from the west, the middle and the eastern regions of Indonesia. As a guideline to collect data and information, the evaluator uses online surveys. The first step in conducting this evaluation study is developing indicators, criteria, and categories. The online survey used in this study used a Likert scale with a range of values from 1 to 5, the rating category is as follows 5 = very good, 4 = excellent, 3 = good, 2 = fair, 1 = bad. Before evaluation instruments were used in the study, questionnaires were tested to calculate empirical validity and reliability. In measuring the validity and reliability of the instrument, the researchers conducted a questionnaire test on 30 participants who had followed a similar program. The calculation of empirical validity with the respondents amounted to 30 people (N = 30) at a significant level (α) 0.05. The test results show that all questions in the questionnaire are considered valid if it has a correlation coefficient> 0.361 by looking at the r-value of Product Moment of Pearson table. The calculation results state that all items are valid. The coefficient of Cronbach's Alpha shows a count of 0.948 which means a reliable questionnaire and can be used to collect research data.

Table 1: Reaction and Learning Indicators

Reaction	Learning
1. Online learning facilities	1. Instructional techniques
2. Instructor competencies	2. Suitability of learning schedule
3. Learning materials	3. Trainee learning outcomes

Table 2: Behavior and Result Indicators

Behavior	Result
1. Online forum activities	1. Knowledge improvement
2. Self-learning motivation	2. Skill enhancement

Reaction aspect measures online learning facilities, instructor competencies, and learning materials. Evaluations of learning are measured through instructional technique, suitability of schedule, and trainee learning outcomes. Behavior level evaluations measure the online forum activities, self-learning motivation. Result level measures the participant's knowledge improvement and their skill enhancement.

FINDINGS

Reaction Level

Online Learning Facilities

Reactions to online learning facilities include three criteria: participants' assessment of synchronous learning facilities, asynchronous learning facilities, and certificates of learning.

Table 3: Online Learning Facilities Evaluation

Criteria	Average	Category
Synchronous learning facilities	3.34	Good
Asynchronous learning facilities	3.15	Good
Certificates of learning	2.52	Fair

The first criteria for assessing the online learning facility is the availability of synchronous learning facilities. Of the 151 participants surveyed, 12 participants gave excellent ratings (8%), 60 participants gave very good ratings (40%), 55 participants gave good ratings (36%), 16 participants gave fair ratings (11%), and 8 participants gave poor ratings (5%). The average respondent's answer is 3.34 indicates that the participants are quite satisfied with the synchronous learning facilities.

The second criteria is the availability of asynchronous learning facilities, 7 participants gave an excellent assessment (5), 54 participants gave very good ratings (36%), 57 participants gave good ratings (38%), 20 participants gave fair ratings (13%), and 13 participants gave poor ratings (9%). %). The average respondent's answer is 3.15 indicates that the participants are quite satisfied with asynchronous learning facilities.

The third criteria are the availability of the certificate as proof that participants have finished their online learning activity. This certificate is important for the participants, as an evidence and a form of recognition for their competency improvement efforts. The results of the questionnaire show that 1 participants gave excellent ratings (1%), 42 participants gave very good ratings (28%), 32 participants gave good ratings (21%), 36 participants gave fair ratings (24%), and 40 participants gave poor ratings (26%). The average respondent's answer is 2.52 indicating that the participants are not satisfied with the certificate. The reason is the unfinished distribution where many participants have not received their certificates even after completing their online learning activity over a year ago.

Instructor Competencies

Things that greatly affect the interest of participants in the online learning is the ease of discussion with the instructor, and ease of interaction with e-learning (Matsunaga, 2016). Reactions to the instructor's competencies include two criteria, Instructor's Mastery Level on their subject matter and online guidance provided by Instructor.

Table 4: Instructor Competencies Evaluation

Criteria	Average	Category
Instructor's mastery level on their subject matter	3.48	Good
Online guidance provided by Instructor	3.32	Good

First criteria for instructor competencies shows that 16 participants gave excellent ratings (11%), 69 participants gave very good ratings (46%), 45 participants gave good ratings (30%), 13 participants gave fair ratings (9%), and 8 participants gave poor ratings (5%).

Second criteria's result shows that 13 participants gave excellent ratings (9%), 65 participants gave very good ratings (43%), 42 participants gave good ratings (28%), 20 participants gave fair ratings (13%), and 11 participants gave poor ratings (7%). The average respondent's answer is 3.48 and 3.32 indicating that the participants were satisfied with the instructor's competencies.

Learning Materials

Participants' Reactions to the learning material include two criteria: the conformity of subjects to the needs of the employees and the relevance of the content materials taught by the instructors to the participants' duty at work.

Table 5: Learning Materials Evaluation

Criteria	Average	Category
Conformity of subjects to the needs of employees	3.73	Very Good
The Relevance of the content materials	3.69	Very Good

The evaluation result for the first criteria shows that 24 participants gave excellent ratings (16%), 77 participants gave very good ratings (51%), 38 participants gave good ratings (25%), 9 participants gave fair ratings (6%), and 3 participants gave poor ratings (2%). The evaluation result for the second criteria shows that 20 participants gave excellent ratings (13%), 80 participants gave very good ratings (53%), 39 participants gave good ratings (26%), 8 participants gave fair ratings (5%), and 4 participants gave poor ratings (3%). The average respondent's answer to both criteria is 3.73 and 3.69. They are included in a very good category which means the participants are very satisfied with the teaching materials provided.

Learning Level

Instructional Techniques

Online learning techniques both synchronously and asynchronously are performed by instructors with specific management techniques. This indicates the ability of the instructor in managing the learning process. In relation to the learning technique, evaluation is conducted by giving appraisal to one criterion, i.e. instructor's online explanation. The Evaluation result of the learning technique from 151 online survey participants shows that 12

participants gave excellent ratings (8%), 66 participants gave very good ratings (44%), 51 participants gave good ratings (34%), 16 participants gave fair ratings (11%) and 6 participants gave poor ratings (4%). The average result is 3.41 which are included in the good category.

Suitability of Learning Schedule

Employees who join the online learning program are not free from their daily duties at the office. This makes time an essential factor in the online learning process, especially in its sufficiently and flexibility.

Table 6: Suitability of Learning Schedule Evaluation

Criteria	Average	Category
The flexibility of learning schedule	3.39	Good
The flexibility of exam time	3.34	Good

The evaluation result for the first criteria shows that 16 participants gave excellent ratings (11%), 61 participants gave very good ratings (40%), 47 participants gave good ratings (31%), 20 participants gave fair ratings (13%), and 7 participants gave poor ratings (5%). The evaluation result for the second criteria shows that 14 participants gave excellent ratings (9%), 59 participants gave very good ratings (39%), 48 participants gave good ratings (32%), 24 participants gave fair ratings (16%), and 6 participants gave poor ratings (4%). The average respondent's answer to both criteria is 3.39 and 3.34 they are included in a good category which means the participants are satisfied with the suitability schedule.

Trainee Learning Outcomes

The set value for a trainee to pass the program is a score above 60. Using this criterion, participants' test results data shows that 60% of the participants passed the exam. These results meet the researcher's expectations for a minimum passing participants rate of 50%.

Table 7: The result of the Trainee's Learning Outcomes

Score	Participants	(%)	Category
0-30	36	24%	Not pass
31-60	24	16%,	Not pass
61-80	67	44%	Pass
71-100	24	16%	Pass

Behavior Level

Behavior is assessed through two aspects: participant's activity level in online forum discussions and the participant's ability to learn independently or the so-called Self-Learning Motivation.

Online Forum Activities

Table 8: Online Forum Activities Evaluation

Criteria	Average	Category
Participant's activity level in online forum discussions	2.89	Fair

Online survey related to the first criteria of learning motivation by measuring participant's activity level in online forum discussions shows the result that 8 participants gave excellent ratings (5%), 40 participants gave very good ratings (26%), 44 participants gave good ratings (29%), 46 the participants gave the ratings (30%) and 13 participants gave poor ratings (9%). The average number for online learning technique is 2.89 which is included in the fair category. It shows the low level of the participant's activity in online forum discussions.

Self-learning Motivation

Table 9: Self-learning Motivation Evaluation

Criteria	Average	Category
The ability of participants to learn independently	3.18	Good

The second aspect is the ability of learners to utilize provided learning materials independently the result shows that 11 participants gave excellent ratings (7%), 50 participants gave very good ratings (33%), 56 participants

gave good ratings (37%), 23 participants gave fair ratings (15%) and 11 participants gave poor ratings (7%). The average number is 3.18 which is included in the good category.
Result Level

Knowledge Improvement
Respondent's answer to the question of whether there is an increase in knowledge after joining the training indicates that 16 participants gave excellent ratings (11%), 70 participants gave very good ratings (46%), 45 participants gave good ratings (30%), 13 participants gave fair ratings (9%), 7 participants gave poor ratings (5%). The average number of 3.50 is included in the very good category.

Skill Enhancement
Respondent's answer to the question of whether there is any improvement in skills and performance after joining the training, shows that 16 participants gave excellent ratings (11%), 67 participants gave very good ratings (44%), 43 participants gave good ratings (28%), 20 participants gave fair ratings (13%), 5 participants gave poor ratings (3%). The average number of 3.46 is included in the good category.

Information and communication technology (ICT) can be utilized to improve the quality of learning, the use of ICT in Educational Technology is able to create an effective learning environment (Gray, 2011) (Latchem & Jung, 2009) (Tynan, Willems, & James, 2013). Implementation of online education for employees in MORA is expected to have a positive impact on service to the community in accordance with the duties and functions. Decision makers have an opinion that learning outcomes with e-learning are no worse than traditional learning in terms of knowledge enhancement. Therefore, the implementation of online education can be justified, with consideration of cost efficiency and expansion of access of education participants (Means, et.al, 2009). The following table summarizes the results of the evaluation e-learning within the Education and Training Centre for Administrative Staff in the Indonesian Ministry of Religious Affairs:

Table 10: Evaluation of Reaction Level

Level	Indicator	Criteria	Category
Reaction	Online Learning facilities	Synchronous learning facilities	Good
		Asynchronous learning facilities	Good
		Certificates of learning	**Fair**
	Instructor's Competencies	Instructor's Mastery Level on their subject matter	Good
		Online guidance provided by Instructor	Good
	Learning Materials	Conformity of subjects to the needs of employees	Very Good
		The Relevance of the content materials	Very Good

Most participants were satisfied with the asynchronous learning facilities achieved with the availability of e-modules, presentation materials and audiovisual media in downloadable multimedia and video formats. While the direct learning is done through chat in accordance with the schedule set. The next criteria for measuring participant satisfaction is the availability of a learning certificate as proof of having passed the training remotely. Certificates are important documents in training as evidence to complete learning. Certificates as well and should play a role in the measurement of promotion in certain positions. In this study found there is one criterion that is not in accordance with the evaluation category that the division of the certificate is not complete. So for the future management should be more serious by preparing a special officer who handles the creation and distribution of certificates.

Instructors should be able to ensure an effective learning process and support a positive school climate (Leite, Fernandes, & Mouraz, 2014) (Catalano, Perucchini, & Vecchio, 2014). Instructors and their students can have different interpretations, express themselves, have freedom of speech that is tied to academic activities. They should interact and create cooperative knowledge. (Wen & Liu, 2016). The instructor's competence in the e-learning program at MORA is in line with the expectations of the participants. The selection of teaching materials should be really deep, and the scope is right. In addition, the order of the material should also be considered, making it easier for participants to learn the content of the material. The evaluation result of the participants' reactions to the material taught in e-learning has been in accordance with the needs of the employees, and the material learned is relevant to the work of the participants.

Table 11: Evaluation of Learning Level

Level	Indicator	Criteria	Category
Learning	Learning Techniques	The ability of the instructor in managing learning	Good
	Suitability of schedule	The flexibility of learning schedule	Good
		The flexibility of exam time	Good
	Trainee learning outcomes	Participants who pass the exam	As expected

Instructors and their students can have different interpretations, express themselves, have freedom of speech that is tied to academic activities. They should interact and create cooperative knowledge. (Wen & Liu, 2016). According to the data analysis results, it is known that the Instructors generally provide technical guidance for the implementation of online learning before the training begins. There is a technical explanation of online learning to the participants before the training begins. The participants' assessment of this criteria is in good classification. The organizers have also provided an application manual that can be downloaded by the participants.

The suitability of synchronous learning implementation with the specified schedule has been in accordance with the criteria. In accordance with the analysis of interview results of instructors related to the discipline in synchronous learning, it can be seen that most try to follow the agreed schedule so that it can be concluded that the discipline in applying synchronous schedule in accordance with the evaluation category.

Participants are quite active in completing the task, although some do not take the final exam. Future strategies that can be taken to increase participation is by conducting a notification system test that is a short information dissemination system that is done electronically through e-mail, SMS, or social media that is agreed.

Table 12: Evaluation of Behavior Level

Level	Indicator	Criteria	Category
Behavior	Online forum activities	Participant's activity level in online forum discussions	Fair
	Self-learning motivation	The ability of participants to learn independently	Good

Part of which is quite difficult to obtain data is to measure the behavior change participants before da after following the learning with e-learning (Kirkpatrick & Kirkpatrick, 2008). In this research we provide questions through questionnaires to the participants about the level of activity in the discussion forum and the desire in doing self-learning using modules provided Instructor. Researchers found that participants were more doing self-learning than discussions in online forums. Discussion using a chatroom can only be done when the participants do not do the job, while self-study provides learning opportunities anytime anywhere without time limitation. The researcher also analyzed the discussion activity by looking at the system, it is seen that not all participants can be online at the same time.

Table 13: Evaluation of Result Level

Level	Indicator	Criteria	Category
Result	Knowledge Improvement	An increase in knowledge after joining the training	Very Good
	Skill Improvement	Skill and Performance Improvement	Good

The fourth level or the last level of this studies measure the increase in knowledge and skills perceived by participants. Criteria of knowledge enhancement get value in accordance with the evaluation category that is very good and skill improvement with good value. The researcher also conducted an interview with the alumni leaders, to know the impacts obtained by the institution. Most leaders recognize the improvement and skills of administrative staff who have followed the learning using e-learning. The quality of online learning depends on the level of involvement of participants in the learning process, internet capabilities, and virtual social interaction (Militaru, 2016). In accordance with the results of observations, the researchers found another problem in the system that is the feature of online discussion forums that are not sufficient due to the mixing of space between different subject matter and different instructors. The discussion room becomes crowded with comments that might confuse the participants.

CONCLUSIONS

Almost all Level evaluated in this study indicate that the program is quite effective with the average score included in a good category. Only two criteria included in fair criteria, i.e. the problem in distributing certificates and the low participant's activity level in the online discussion forum. Therefore, recommendations for improvements in future program implementation are: (1) any form of online education program must provide a

certificate containing information such as the name of the institution, the name of the participant, the learning period, the course, and the graduation class or criteria. The certificate will serve as a document proving that the owner has mastered certain knowledge and has learned certain skills. This document will be used to improve the rankings of employees' offices, especially those requiring certain qualifications. The online education manager MORA should pay more attention to its learning certificates, especially on the information it provides and its distribution. In this case, the Ministry of Religion needs to create a special team that will manage the certificate as a result of online learning activities, (2) busy work, and time-difference between regions in Indonesia, make online discussion not effective, this can be overcome by providing material enrichment and provide training for self-study, and (3) create a discussion room for each subject so that the participants focus more on the learning process.

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PERCEPTION OF ODL STUDENTS TOWARDS RIGHT TO INFORMATION ACT 2005: A CASE OF IGNOU, INDIA

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ABSTRACT
The Right to Information Act in India was enacted on June 15, 2005 and came into effect on October 12, 2005 replacing the Freedom of Information Act 2002. The Act heralded a new beginning by giving citizens an opportunity to participate in the democratic processes leading to transparent and open governance. In Indian context, the Right to Information (RTI) Act is being seen as a grievance redressal tool rather than an information retrieval tool. The Act has been used by different citizens and non-governmental organisations to unearth cases of financial misappropriation and corruption at different occasions. The Indira Gandhi National Open University (IGNOU) is a premier institution of distance higher education in India funded by the federal government. Consequently, IGNOU comes under the purview of the Act. The awareness and perception of the citizens towards the different provisions of the Right to Information Act play important role in making judicious use of the Act. The current study tries to study the perception of IGNOU students towards the Right to Information Act 2005. The analysis of data revealed that IGNOU students considered the Act as an important tool in seeking information from government departments. The respondents had a fare idea of the provisions of the RTI Act. They perceived that the users make judicious use of the Act. It was perceived that the users sought only the required information from the public authority except a few who misused the Act. The respondents agreed that the practice of multiple applications from the same applicant and multiple hearings on the same subject lead to wastage of precious time of government machinery. Lack of infrastructure, information management system and training of the public information officers were considered as few of the constraints in effective implementation of the Act. The study highlighted the need of improving the support services by IGNOU for its students. Opening up of alternative channels for information dissemination was also considered important in study.
Keywords: Perception, Right to Information Act, ODL Students, IGNOU, INDIA

INTRODUCTION

The concept of extending right to the citizens to seek information from government bodies is not new. The nations globally have acknowledged the right to information (RTI) at different times through promulgation of laws to this effect. The right to information law at international level was first enacted by Sweden in 1776. This enabled her parliament to access relevant information held by the King at that point of time. Subsequently, Finland (1951), United States of America (1966) and Norway (1970) enacted similar laws to open the threshold of information held by government departments to the citizens (Karim, 2013). Slowly it became a global trend and different countries enacted such laws for benefit of their citizens. In Indian context, the access to potential information held by government departments was restricted through Official Secrets Act, 1923. The prevailing Right to Information Act which relaxed and replaced the Freedom of Information Act 2002 was enacted on June 15, 2005 and consequently, came into effect on October 12, 2005.

The RTI Act 2005 was expected to herald a new beginning leading to transparent and open governance, and participatory democracy. The Act gives the citizens an opportunity to actually participate in the governance that is essential for inclusive growth at national level. The implementation of the RTI Act is one of the important initiatives for making the functioning of the public institutions accountable and transparent thereby empowering the citizens. The right to information for the citizens is increasingly been seen as a way to *"promote openness, transparency and accountability in public administration"* (Singh & Verma, 2009). The centre, state and local government authorities

are expected to be more accountable to common citizens of the nation. At the same time, it is to encourage the citizens to be vigilant and become informed citizens as also actively participate in democratic process by way of accessing information and records available with the public authorities in different forms. It has also helped in changing the attitude of the people at the global level towards flow, exchange, and use of information. The Act is even popular among the students who make use of it in getting their grievances resolved (Business Today, 2013).

The promulgation of RTI Act 2005 is perceived as the advent of *"RTI Movement"* in Indian context (World Bank, 2012). Added to this, eGovernance and ICT tools have become potential empowering tools in the hands of the government and citizens alike (Singh, 2010). Making the information and knowledge accessible to all is perceived to be crucial for creating equal opportunities of development for all. This is where the RTI Act facilitates the process for free flow of information that forms the basis for a healthy debate on issues of vital importance to every section of the society. The access to right kind of information and an understanding of how to make use of that information empowers people and proves to be their real strength (Ansari, 2008).

As observed by Dharanesha (2015), RTI Act is perceived to be an important tool in the hands of the citizens to fight against corruption, irregularities, misappropriation of funds, and misuse of power among others. It is expected to promote good governance and pave the way for inclusive development. Under the provisions of the RTI Act, the citizens can access the information hitherto not available and accessible to them from a public authority. The important conditions in seeking the information are: the applicant is an Indian Citizen; the information is held by that public authority; and the information is not exempted by the Act under any of the provisions.

The current study examines the perception of the Open and Distance Learning students towards the Right to Information Act 2005 with special reference to Student Evaluation Division of Indira Gandhi National Open University.

REVIEW OF LITERATURE

As per the clause 2(j) of the RTI Act 2005 (GoI, 2005), right to information *"means the right to information accessible under this Act which is held by or under the control of any public authority and includes the right to (i) inspection of work, documents, records; (ii) taking notes, extracts, or certified copies of documents or records; (iii) taking certified samples of material; and (iv) obtaining information in the form of diskettes, floppies, tapes, video cassettes or in any other electronic mode or through printouts where such information is stored in a computer or in any other device"*.

The UN General Assembly in 1949 declared under Resolution 59(I) that *"Freedom of information is a fundamental human right"* (Mendel, 2008). In Indian context, the statutory provisions of the RTI Act extend the citizens the right to *"query, examine, audit and review' government activities and decisions*". However, Dharanesha (2015) while studying the perception of the citizens towards RTI Act, has sighted an important aspect of implementation of the Act in Indian context. He claims that the citizens are not aware of the scope of the Act and therefore, seek questions which do not fall under the purview of the Act such as 'why' and 'how' among others. He further claims that the non-response of such questions invites dissatisfaction of the applicants and further leads to complaints to CIC.

Implementation of RTI Act

As perceived by Singh (2016), *"RTI and e-Governance are twins and are inseparable. E-Governance will never be complete unless the RTI Act is fully implemented neither will RTI work if there isn't a full-fledged system of computerization and administration"*. With a view to creating an independent mechanism for management of applications under the RTI Act, the central government has created Online RTI MIS portal that facilitates the citizens to file RTI applications Online. It is a single window system for receipt of requests and appeals from the Indian citizens. The portal facilitates online maintenance of the RTI application records. The portal provides for names of different public authorities to whom the application is forwarded by the system. The Public Information

Officers (PIOs) are required to provide information online through the system. It facilitates generation of different types of reports by the RTI functionaries. The recent circular from the DoPT mandates PIOs to upload all RTI applications received offline along with their responses on the online portal for tracking online and maintenance of central database.

In case an applicant seeks information that pertains to some other person and impinges upon privacy of the latter, this invokes the provision of the third party information as per the RTI Act. In such a situation, the relevant provisions of the Act need to be followed keeping in view the privacy of the individual concerned before such information is released. The Act also provides that the adequate information be put in public domain as part of self-disclosure for providing easy access. However, the study by Shashi (2011) revealed that as many as 53% of the public authorities did not follow the self-disclosure mechanism for sharing the information.

Uses of the RTI Act

The studies have shown that the citizens have used different provisions of the RTI Act for getting information on potential schemes launched by the government from time to time and redressing their grievances on account of denial of basic entitled services (World Bank, 2012). They have been successful at times in exposing illegal acts leading to corruption as well. Sharma (2015) has reported that the RTI has helped people in resolving their grievances pending with public authorities for long due to various concocted reasons. However, there is still an issue of lack of awareness of different enabling provisions of the Act among the common man. PWC (2009) reported that awareness level of people towards RTI was minimal since only 13% of the rural and 33% of the urban population was aware of the provisions of the Act. Lack of general awareness about RTI Act among public has also been highlighted as a constraint by the researchers. PRIYA (2006) claimed that over 90% of the people were not found aware of the provisions of the RTI Act. In case of Haryana, as many as 70% applicants belonged to government service and all were from urban areas. However, the studies have shown that the common people are now responding to the Act quite enthusiastically and coming forward to know more about a range of activities of the public authorities (World Bank, 2012).

In spite of all odds the RTI Act has made an indelible impact on the lives of the people. As has been perceived, this Act has proved to be a tool for redressal of grievances of the people related to government departments that is way more than the Act being an instrument of empowering people with information and administrative transparency. People from different strata of society including the *"disabled, old and young below the poverty line"* have taken utmost benefit of the Act (Dharanesha, 2015). Similarly, Chauhan (2018) perceived that in spite of all constraints, the working of the government has changed and the transparency and accountability in functioning has enhanced due to implementation of RTI Act 2005. The impact of the Act on the functioning of the government departments has been such that it has improved the efficiency of the system in delivering benevolent policies and administrative decisions. The quality of services provided by the government departments has improved a lot since they have become receptive to the public opinion and sentiments (Dharanesha, 2015).

In his study, Sharma (2015) held that the implementation of RTI has improved the daily life of people. In the past, the RTI applicants have used the RTI Act for appointment of teachers, getting implemented the ban on smoking in Chandigarh as per the relevant Act, identification of ponds that were never dug in a village in the State of Orissa, and getting scholarship, dress, and books for the students who never got it in a village in Telangana (Singh, 2010). A similar case was resolved in a government school in Chitrakoot in Uttar Pradesh. In another instance, as reported by Murkute (2008) an applicant could know his right PF account number only as part of a response to an RTI application from provident fund office.

The NGOs like Mazdoor Kisan Shakti Sangthan (MKSS), National Alliance of People's Movement, Rural Workers' Campaign, Dalit Sangharsh Samiti, National Campaign for People's Right to Information (NCPRI), Sabar Ekta Manch, Pardarshita, Satark Nagarik Sangathan (SNS), JOSH, Parivartan, Housing and Land Rights Network

(HLRN) among others have also been found taking recourse to RTI Act to extract information from public authorities, and helped people in realizing their legitimate rights. Some other organisations including individual RTI activities have made use of RTI Act in unearthing cases of corruption and financial misappropriation on the part of the public authorities. The NGO SNS working for social upliftment has successfully made use of the RTI Act in improving *"the quality of public services including water, sanitation, and the public distribution system"* as reported by Surie (2011).

Misuse of the Act

The RTI Act has both positive and negative influence on working of the government departments (Dharanesha, 2015). Quite a few clever people try to misuse the provisions of the Act. Scholars such as Paul (2018) (as cited in Chauhan, 2018) also have perceived misuse of the provisions of the RTI Act in the hands of opportunists and politically influential people. Asking baseless information for no reason or public interest, may lead to wastage of precious time and energy of public authorities as the time so spent could have been utilized by them for some other productive work. Paul (2018) (as cited in Chauhan, 2018) claimed that 2-3% applicants make misuse of provisions of RTI Act unreasonably. Though, he reported that the applicants have been benefited by the Act in as many as 60-70% cases and the provisions have helped the government to enhance transparency in its working.

Dharanesha (2015) reported that more than 50% applications filed under RTI Act were related to simple information pertaining to one of the government departments. Quoting an example of silly questions asked by RTI applications, Dharanesha (2015) reports that an applicant asked a PIO that *"are you born to your parents properly, if you are born to only your parents please give me a certified copy and DNA certificate in this regard"*. He points out that the users should develop some ethics not to consume precious time of the government officers in providing futile information that is of no literal use for the applicant. The awareness and consciousness among the people should prevail and genuine motive should be considered while seeking the information on any issue.

There is no limitation for submission of applications and number of questions in a single application as per the RTI Act, 2005. As quoted by Dharanesha (2015), taking advantage of the openness of the Act, an individual submitted as many as 265 applications in a single day in Gulbargha district. He further pointed out that some of the RTI activists file 50-100 questions on an average, and attending them by PIOs adversely affects their office work. This type of irresponsible action on the part of the RTI applicants not only disrupts the functioning of government office but also makes a mockery of the provisions enacted for empowerment of the citizens. Consequently, this flexibility and openness of the Act has given birth to a special class of people *'RTI Activists'* who misuse the Act not for valid reasons or benefit to them or society at large but for reasons best known to them.

Constraints

The journey so far in implementation of the RTI Act has not been easy for the government departments. There have been challenges and constraints of different types before the government departments as also beyond the control of the PIOs who have a pivotal role to play in effective implementation of the Act. The studies have reported not only constraints related to awareness about different provisions of the RTI Act among common man but also lack of availability of infrastructure, and training and capacity building opportunities to the government officers designated as public information officers in different departments. As reported by PWC (2009), approximately 45% of the PIOs had no training to handle RTI matters. However, the centre and state governments are now providing training to the PIOs and first appellate authorities in order to enable them handle the applications in an efficient manner (PWC, 2009).

Sahu and Dwivedi (2009) reported that PIOs were often given additional responsibility and, consequently, they were not able to devote their full time in responding to the queries of the applicants. As reported by PWC (2009), as many as 89% of the PIOs were facing scarcity of staff to handle RTI matters. As a result, the motivation level of the PIOs was found to be very low and they were reluctant to handle RTI matters (PWC, 2009). PRIYA (2006) also observed

that the person designated as PIO did not have access to the desired information at times that made his/her task tougher. In other cases the PIO had been a junior officer and did not get due attention from his/her seniors for responding to RTI applications. Sahu and Dwivedi (2009) also perceived the difficulty faced by the PIOs in extracting information from their departments as one of the constraints.

The lack of infrastructure with PIOs has been observed as one of the prime constraints by PCW (2009). This has affected the process of timely disposal of the RTI applications by PIOs adversely. Poor record management was highlighted as another constraint in implementing the RTI Act and providing the required information in reasonable time to the applicants (World Bank, 2012). PWC (2009) reported that 38% of the PIOs blamed inappropriate record management system for delay in providing the responses, and handling the influx of the applications, and thus, providing information was one of the constraints in effective implementation of the Act. Sahu and Dwivedi (2009) also revealed that the organisations with lesser or medium use of ICT were facing constraints in implementation of the Act. Such institutions faced difficulty in providing information in a stipulated time.

The scarcity of staff at Information Commission level has been highlighted by some of the studies. A survey by CHRI (2018) (as cited in Chauhan, 2018) reported that over 33% of the positions of Information Commissioners were lying vacant. The state information commissions faced similar staff crunch where over 25% posts were lying vacant for long. Consequently, *"over two lakh appeals and complaints were pending till November 2017"* (Chauhan, 2018). The scarcity of staff has not only led to increase in number of pending cases with CIC but also lowering of quality of orders depicting decisions of the Commissions (Chauhan, 2018). PWC (2009) reported lack of software at Information Commission and PIO levels as one of the constraints.

OBJECTIVES

The Indira Gandhi National Open University is a public institution of distance higher education and, consequently, is covered under the RTI Act 2005. A number of applications seeking information under RTI Act are received from IGNOU students and general public. The current study is an attempt to know the perception of IGNOU students towards the RTI Act 2005. The specific objective of the study was to understand and analyse the perception of open and distance learning students towards Right to Information Act with special reference to IGNOU.

RESEARCH METHODOLOGY

A descriptive study research design has been chosen for the current study. Likert scale has been used to study the perception of the students. The RTI applicants who submitted their applications through the *"RTI Request and Appeal Management Information System"* – An Online Portal being maintained by National Informatics Centre under the aegis of Ministry of Personnel, Public Grievances and Pensions, Government of India for managing applications under RTI Act, 2005 during the last two years, to receive information on examination matters from Student Evaluation Division of IGNOU were considered for the study. The applicants who submitted their applications offline were not considered since it was observed that the email IDs were not provided by them invariably, and that could limit the opportunity to administer the survey tool online. The perception scale was designed especially for the current study to seek data from the sample. The scale was administered on 10 applicants on pilot basis to check the content and format validity. The Cronbach's Alpha Score was also calculated in order to know the internal consistency of the items. The value of the score was found to be .80 that showed a high level of internal consistency among the items of the scale (Cronbach, 1951).

Sampling, Tool and Data Collection

The preliminary data such as names and email IDs of the RTI applicants was taken from the RTI-MIS Online Portal maintained by DoPT. It was observed that 696 applicants in all had filed their applications online for seeking information on different activities performed by the Student Evaluation Division of IGNOU. Therefore, the questionnaire was administered on all of them.

The Likert Scale containing 13 items was used in the questionnaire to know the perception of the respondents on different aspects connected with RTI activities. In addition, 4 items were included in the questionnaire to know the profile of the applicants. In all 137 responses were received from the participants. The analysis revealed that as many as 106 applicants were IGNOU students and 31 applicants were other than IGNOU students who sought information on different aspects of the University. Since the study was focused on IGNOU students, keeping the objective of the study in view, 106 responses received from IGNOU students were taken for further analysis. The secondary data was collected through published reports and articles. The decisions of the statutory authorities also were consulted to understand the issues that led to mutual conflict between a public authority and an RTI applicant.

DATA ANALYSIS AND INTERPRETATION

The response to the questionnaire was received from 106 IGNOU students who had filed their applications under RTI Act through the online system. The responses were subjected to statistical analysis. The findings are presented in the forthcoming paragraphs.

Profile of respondents

The analysis of the data revealed that majority of the respondents were male (79.25%) and only 20.75% respondents were female. It was observed that 41.51% respondents belonged to bachelor degree level programmes followed by another 37.74% who belonged to master degree level programmes of IGNOU. The trend of lesser number of responses from female participants was visible through the level of programme also. Majority of the respondents (75% and above) at all the programme levels belonged to male category. The gender-wise programme level-wise distribution of respondents is presented in Table-1.

Table-1: Gender-wise Programme level-wise distribution of respondents

Level of Programme	Female Freq. (%)	Male Freq. (%)	Grand Total Freq. (%)
Bachelor	8	36	44
	(18.18)	(81.82)	(41.51)
Certificate	1	8	9
	(11.11)	(88.89)	(8.49)
Diploma	3	10	13
	(23.08)	(76.92)	(12.26)
Master	10	30	40
	(25.00)	(75.00)	(37.74)
Grand Total	**22**	**84**	**106**
	(20.75)	(79.25)	(100.00)

The analysis revealed that the information sought by the respondents through RTI application primarily belonged to examination system of IGNOU, non-receipt of grade card, copy of answer-script, non-receipt of provisional certificate, non-reflection of assignment grades, examination data, non-receipt of original degree, re-evaluation of answer-script, online payment of examination fee, and examination centres among others. It was further noticed that the information sought through the RTI application was important to 90% respondents. Some other (5.56%) respondents sought information in public interest. However, as many as 3.33% respondents (66.67% females and 33.33% males) reported that the information sought was not important to them, rather, they wanted to teach a lesson to the concerned staff of the University. This reaction from the respondents could be a part of previous grudge with the staff.

Perception

The Likert Scale on perception of participants towards the RTI Act contained 13 items in all. The scale points ranged from '*Strongly Disagreed*' (1 point) to '*Strongly Agreed*' (5 points). The midpoint of the scale i.e. '*Undecided*' was given 3 points. The mean score of different items of the perception scale ranged from 3.34 to 4.22. A mean value above 3 showed a positive inclination of participants towards the statement and agreeing to it.

The analysis of the responses as presented in Table-2, revealed that the respondents liked the different provisions of the RTI Act since they could seek the information desired by them from the government offices (M=4.22, SD=1). However, they wanted that the provisions of the ACT should be made more strict (M=4.16, SD=1.055) so that the government departments do not avoid giving correct information. Though, the respondents liked the procedure being followed for seeking information under the RTI Act (M=4.12, SD=1.028). They believed that the government departments can be made to work with the implementation of RTI Act (M=4.07, SD=1.184). The participants were of the opinion that the Act needs suitable amendments so that government departments are made to provide the desired information quickly and the applicants are not put to any kind of harassment (M=4.04, SD=1.132).

The analysis of data further revealed that the mean score of some of the statements was close to 3. And therefore, it was considered that the respondents either did not support that statement much or were not sure in that context. The respondents were not very sure whether RTI Act may lead to avoidable harassment of employees of the government departments in certain cases (M=3.34, SD=1.145) or the provisions of the RTI Act should be made more liberal to give leverage to the government departments in providing information (M=3.41, SD=1.206). They were also not much sure that with the help of RTI Act, one can take revenge from the government officials who delay the response deliberately (M=3.39, SD=1.164). However, the respondents favoured the statements that all RTI applicants make proper use of the provisions of the Act (M=3.90, SD=1.071) and they seek only the information that is important for them (M=3.90, SD=1.141). The respondents agreed to some extent that practice of multiple hearing leads to wastage of time of Information Commission and that of the government department concerned (M=3.75, SD=1.120); and multiple copies of the same RTI application lead to multiple hearings at CIC on the same subject that might have been addressed already (M=3.65, SD=0.996). In case of IGNOU, the respondents were not pretty sure that work in IGNOU can be done with the help of RTI application only.

Table-2: Perception of IGNOU students towards RTI Act

Sr No.	Statement	Strongly Agree	Agree	Do not know	Strongly Disagree	Disagree	Frequency	Mean	SD
a)	Provisions of RTI Act are very good since we can get relevant information from any government office	46	40	4	4	4	98	**4.22**	1.000
b)	The procedure being followed for seeking information under IRT Act is good	40	44	4	4	6	98	**4.12**	1.028
c)	All the RTI applicants make proper use of the provisions of RTI Act	30	41	15	5	5	96	3.90	1.071
d)	All the RTI applicants seek only that information which is important for them	35	36	11	4	11	97	3.90	1.141
e)	With the help of RTI Act, Govt. Department can be made to work	49	23	13	5	7	97	**4.07**	1.184
f)	Application under RTI Act is the only way of getting the work done at IGNOU	26	23	27	9	13	98	3.47	1.251

Sr No.	Statement	Strongly Agree	Agree	Do not know	Strongly Disagree	Disagree	Frequency	Mean	SD
g)	With the help of RTI, one can take revenge from the officials of the Govt. Department who delay the action deliberately	18	30	25	6	17	96	3.39	1.164
h)	In certain cases, RTI may lead to avoidable harassment of the employees of Government Department.	17	25	33	7	13	95	3.34	1.145
i)	RTI Act needs suitable amendments so that the applicants get quick response and Govt. Dept. is not put to harassment unnecessarily	42	28	12	4	7	93	**4.04**	1.132
j)	RTI Act provisions need to be made more strict	46	30	10	3	6	95	**4.16**	1.055
k)	Provisions of the RTI Act need to be made more liberal	22	22	25	5	18	92	3.41	1.206
l)	Multiple copies of the same RTI application lead to multiple hearings at CIC on the same subject	19	34	32	4	4	93	3.65	.996
m)	Practice of multiple hearing leads to wastage of time of Information Commission and Govt. Dept. concerned	28	30	24	5	6	93	3.75	1.120

DISCUSSION

The University has implemented the RTI Act through a well established system of providing information to its students and Indian citizens at large. The Student Support Service Centre acts as the nodal point for all types of RTI applications received by the University through offline and online modes. In addition, a senior officer in each of the Divisions, Schools of Studies, Regional Centres, and Regional Evaluation Centres has been designated as the Public Information Officer to facilitate smooth flow of information to the applicants under RTI Act. The heads of the concerned departments have been designated as first Appellate Authority as per provisions of the Act. In majority of cases, the RTI applicants happen to be the *bona fide* students of the University. Therefore, the University PIOs go extra mile in providing the desired information and helping the students. Taking a cue from the application filed by a student under the RTI Act, efforts are made to resolve other similar grievances in one go. The constraints such as lack of infrastructure and work overload on PIOs do affect the smooth implementation of different provisions of the RTI Act in IGNOU as well. However, the motivation and commitment of the officers towards its students help them in effectively implementing the RTI Act.

The analysis revealed that the respondents had a fair idea of different provisions of the RTI Act and they were making use of the Act for seeking information on different matters. However, males were found to be more active than the females in seeking information under the Act. It could mean that male students are more aware than the female students. The different provisions of the RTI Act have been liked by majority of the respondents but they were not sure whether some relaxation should be given to government departments in providing the information. The respondents sought only the information that was useful for them. However, a small number of respondents also sought the information that was not important to them. Similar to the studies conducted by PCW (2009), PRIYA (2006), Sahu and Dwivedi (2009), Sharma (2015), and (Dharanesha, 2015), the current study reported that the right

to information is perceived to be an important tool in the hands of Indian citizens. However, Bhalla (2010) has found that the RTI Act has impacted the life of people in the urban areas in the Indian context though it has failed to penetrate the life of the poor especially in rural areas.

Studies by RaaG and SNS (2016), and PWC (2009) have reported harassment of RTI activists by government officials at time. However, the current study revealed that some RTI activities made use of different provision of the Act to harass University officials and take revenge on one pretext or the other, and tried to drag them up to the Information Commission even though the information available was provide to them. They used RTI Act as a tool to teach a lesson to the concerned staff of the University. The major disagreement was expressed in cases where information sought belonged to third party. This finding is similar to that of Paul (2018) (as cited in Chauhan, 2018) who claimed that 2-3% applicants made misuse of provisions of RTI Act unreasonably. The respondents in the current study were of the opinion that filing of multiple applications on the same issue not only leads to wastage of productive time of the PIOs but also results in multiple hearing at Information Commission. Goel (2016) also held that some of the RTI applicants file multiple applications for seeking the same that had either been provided earlier or denied, in order to harass the public officer and take him/her to a ride.

Training and development of PIOs and first Appellate Authorities has been a concern for effective implementation of the RTI Act. PRIYA (2006) advocated that more training opportunities should be created for PIOs and first appellate authorities. PWC (2009) also propagated that there was a need for capacity enhancement of the PIOs. However, the current study revealed that ample training opportunities were provided to the PIOs in IGNOU and such programmes were organised in the university from time to time. Though, there is a need to strengthen the RTI Cells at Division and School level by providing adequate staff and IT infrastructure.

CONCLUSION

The IGNOU is a premier institution of distance higher education at national level in India. As many as 7 to 10 lack students seek admission to different academic programmes offered by the University each year in July and January cycles. The total number of active students on rolls of the University is over 30 lakh. The University has a national jurisdiction and makes all out efforts to reaching all nooks and corners of the country including the rural and remote areas with opportunities of quality education. It has a mandatory responsibility to serve its students well despite all odds The receipt of meager number of applications under RTI Act from IGNOU students signifies that the University is able to manage its services well almost to the satisfaction of its students. In order to ensure that proper support service is provided to IGNOU students, a dedicated Student Services Centre has been established at the Headquarters. In addition, the single window help desks are functioning at the Regional Centres located in different parts of the country. The departments concerned make all out effort to resolve the relevant queries of the students.

The current study has found that the IGNOU students have been aware of their rights under the RTI Act 2005. They have been making use of the Act at times for getting their grievances resolved. They perceive the different provisions of the Act to be useful and productive. However, the status of filing of RTI applications by the IGNOU students shows that there is a need for improving the support services further by the University in order to mitigate the hardship faced by the students. As part of their mobility due to change in job or otherwise, IGNOU students keep on changing their mailing address. If the mailing address is not updated in time, there is a likelihood that the documents sent by the University to the students would return undelivered. Though, the University has already launched online facility for updating of the mailing address by the students; it is likely that all the students might not be using this facility. It has also been observed at times that the task at the University level has been accomplished already yet information could not reach the student concerned in time and that forced him/her to file an application under the RTI Act. The University needs to work on creating more options for sharing of information with the students. The availability of adequate staff and infrastructure also would enhance the effectiveness of implementation of RTI Act in the University.

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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 perquisite 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 pursing any e-learning courses.
- All most 48.7% of the faculty those who are pursing 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 pursing 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 pursed 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

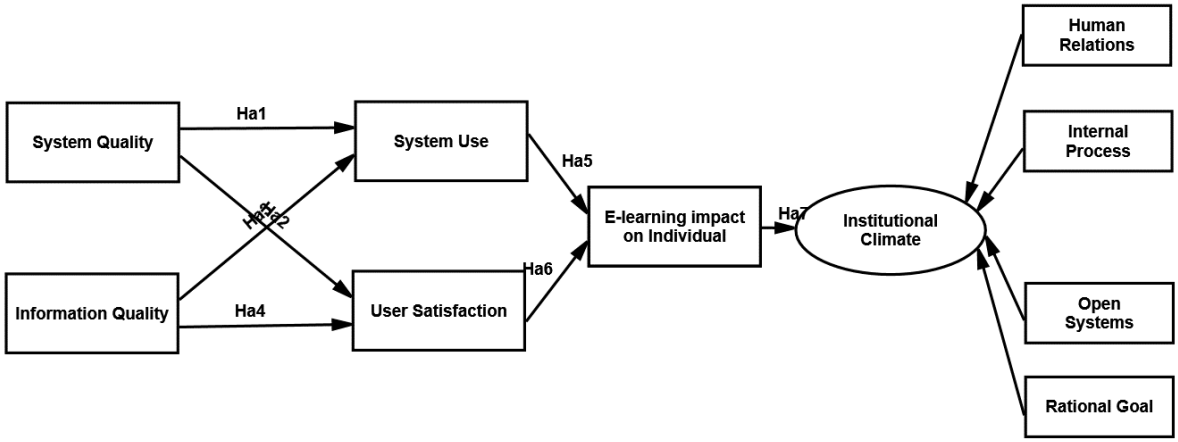

Figure 1. Conceptual Model of the Research

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.

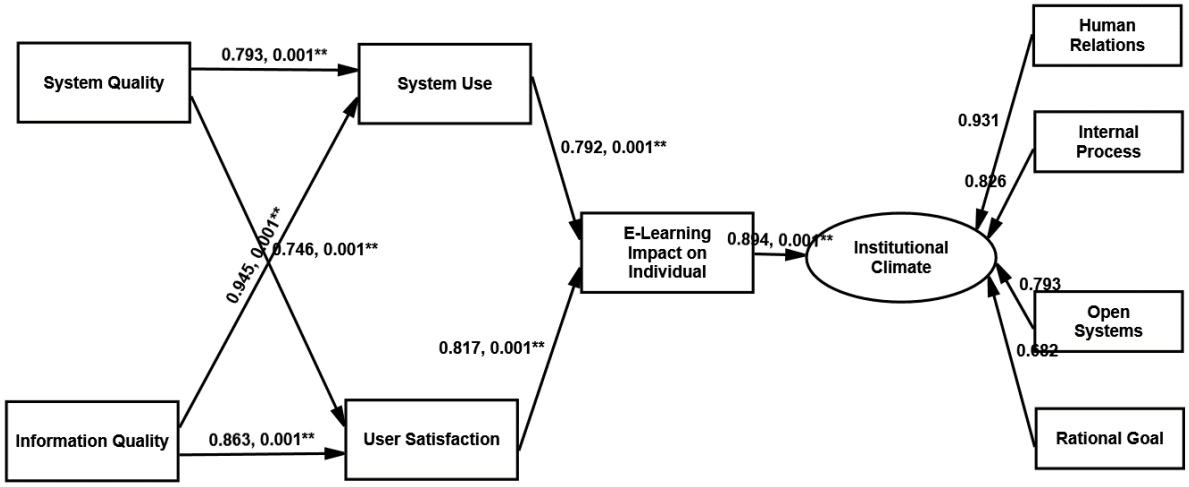

Figure 2. Role of E-Learning Practices on Institutional Climate – SEM model

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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TECHNOLOGICAL ADVANCEMENTS IN EDUCATION 4.0

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ABSTRACT:
The use of technological advancements in teaching and learning can enhance the teaching and learning process and create the interest of learners to participate in the learning materials. Education 4.0 in a way completes the phenomenon of digital penetration in our everyday lives. In Malaysia, education 4.0 is more highlighted to embrace the fourth industrial revolution as part of the call to revamp the Malaysian higher education system. To realize this, first, the process of using technological advancements in teaching and learning must be changed. In this paper, the technological advancements in IR4.0 consists of the 3D Printing, augmented reality, virtual reality, cloud computing, hologram, biometrics, multi-touch LCD screen, internet of things, artificial intelligence, big data and qr-code for educational purposes. This paper provides a review of using technological advancement in education 4.0.
Keywords: teaching and learning, technological advancements, education 4.0

INTRODUCTION

The first industrial rotation was built on steam king; the second industrial rotation humans harnessed the new energies of petro carbons and electrical energy; the third industrial revolution has seen information technology shrink incredible processing index from mainframe computers to mobile that connect individual across continent instantaneously. Currently, we are entering a fourth industrial years that will be based upon a combination of the existing and the new, and it is a years that will bring more significant changes than everything that had gone before. For instance, traditional equipments will be replaced to the massive environmental equipments (Ali, 2017).

Education 4.0 in a way completes the phenomenon of digital integration in our everyday lives where human beings and machines are aligned to take out solvent, troubleshoot and of course discover new theory of innovation. In education 4.0, information is available ubiquitously and teaching and learning process has become dynamic. In the evolvements of technological advancements, it is not complex to envisage what education 4.0 hold for us. The future of education 4.0 can change economic utilization of information in a remarkable way. To address the needs of industrial revolution 4.0 (IR4.0) in education, higher learning institutions must keep on integrating an innovative method to enhance the teaching and learning process.

THE MOVEMENT OF EDUCATION 4.0 IN MALAYSIAN EDUCATION SYSTEM

The movement of education 4.0 in Malaysian education system started when former Higher Education Minister Datuk Seri Idris Jusoh highlighted the theme of “Higher Education 4.0: Knowledge, Industry and Humanity” in 2018. He believes that the integration of IR4.0 in Malaysian higher education system will help the learning institutions to stay relevant and competitive in the dawning of Industry 4.0. Higher learning institutions are urge to revamp their education system and take initiatives to embrace the teaching and learning 4.0. One of the underpinned in teaching and learning 4.0 is the advances use of technology 4.0 such as 3D Printing, augmented reality, virtual reality, cloud computing, hologram, biometrics, multi-touch LCD screen, internet of things, artificial intelligence, big data and qr-code and so forth. The theme also introduced four components that need to be emphasizing such as first, redesigned the learning spaces with the usage of multi-tiered collaborative tables and smart board. Second, utilize diverse pedagogies such as heutagogy, pedagogy and cybergogy. Third, employ fluid and organic curriculum where higher learning institutions need to adopt the innovations without being tight

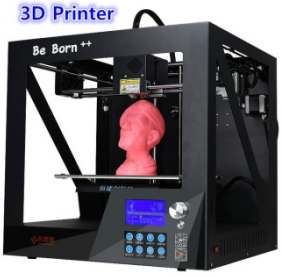
by traditional curriculum practices. Fourth, incorporating the usage of technological advancements in teaching and learning process.

Other than these four components, the theme are also focusing on the concept of 'evaluation without examinations' which any assessments are not solely based on examinations. Students also need to be prepare for Industry 4.0 where the TVET 4,0 framework could help to lesser the number of unemployment issues. Another aspect is the collaboration between the industry and university which the industry and academia act as one to fulfil the industry needs. Higher learning institutions could take initiatives to introduce the programs such as 2u2i and CEO@Faculty programs. Finally, the human element needs to go along where the merging of IR4.0 in academia should benefit humanity in the long run. To achieve this, the process of teaching and learning and incorporating latest technology must be transformed (Dzulkifli, 2017).

THE LATEST TECHNOLOGICALADVANCEMENTS IN EDUCATION 4.0

The usage of technological advancements in education 4.0 is expected to present significant role for higher learning institution (Blaschke, 2012). Incorporating the latest technologies, it can raise the effectiveness of teaching and learning process (Vawn, 2018). With new technologies, students would have more attention towards learning and they would require for more (John & Cedric, 2004). Here are the examples of the latest technologies advancements in education 4.0:

1. 3D Printing



Students view is not only limited to text book pictures, By using this 3D printer, students will have access to 3D models of different elements which 3D view helps them to have a deeper level understanding of their subjects.

2. Augmented Reality

The use of augmented reality helps students to gain their interest in learning because this technology provides an indirect vision of a real-world setting. Students will get an experience of getting physical with better sensory inputs and graphics elements.

3. Virtual Reality (VR)

This technology helps student to gain deeper engagement as compared to a traditional textbook. They will gain visual elements enhances the connections between learning concepts and information effectively.

4. Cloud Computing

This advanced technology help students lesser their burden to carry their home works, heavy text books and assignments. With internet connection, they are able to access their work at home from their class anytime and anywhere.

5. Hologram

This technology helps student to learn in real time which can be integrate into the real environment. This technology also offers a visual and interactive learning experience.

6. Biometrics

The facial recognition, fingerprints and eye tracking are helpful in easing off the class attendance which can saves times in the classroom, for security purposes and create a better understanding of student engagement. In libraries, this technology can be used to identify students who are borrowing books.

7. Paper-thin Smartphone

This technology is not only durable or unbreakable but also offers interactivity in the classroom and paperless. Paper thin smartphone operates like a small sheet of interactive paper. This means when students are reading they do not feel like they are holding a sheet of glass or metal.

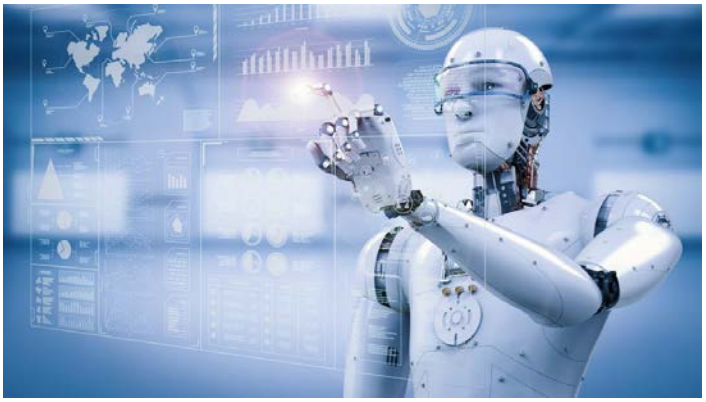
8. Multi-touch LCD screen

This technology presents the perfect presentation solution than the traditional big board in front of the classroom. Students will sit around the table tablet, swipe on the board to manipulate and drag images around the screen, or type notes with their onscreen keyboards.

9. Internet of Things

The internet of things influences education specifically with the ever-growing popularity of mobile devices. This technology helps to establish a rapid communication and interaction between the students and teachers in and outside the classroom.

10. Artificial Intelligence



This technology can accelerates the teaching and learning process and also improving the student learning experience. It can reduces the irrelevant work that teachers have to do every now and then, which means they can focus more in meaningful learning experience for the students.

10. Big Data

This technology help the institution to manage data which it is possible to find evidenceand can facilitate interchange of data among institutions and students. For instance, the institutions able to identify of how well students are learning, students' drop out pattern, students' academic performance or predict any information related to attendance patterns.

11. QR-code

A Quick Response (QR) code is a digital image available from free QR scanner apps that can be scanned using any devices such as mobile, ipad, laptop and so forth. When the students scan the code, it will be taken directly to a website. This technology use in the classroom can reduce the frustration of long web addresses, user friendly and save time which they can quickly scan the QR code easily to the website.

CONCLUSION

One of the ways to boost our education system is by using advance technology in teaching and learning process. This is to help student understand the learning contents effectively than using those traditional approach, In line with industry revolution 4.0, Malaysia needs to improve the education system so that Malaysia can be one of the competitive countries in the world. Since students are more favour towards using technology, educators need to move a step forward. Malaysian Ministry of Education also need to provide adequate facilities to learning institutions in order for them to utilize the technology 4.0 effectively.

Previous studies have shown that the usage of technology has helped students to improve their learning (Halili, Nurul & Rafiza, 2018; Halili & Suguneswary, 2016; Halili & Hamidah, 2016; Maryam & Halili, 2015). In the era of education 4.0, students are able to search millions of information in the internet, interact and collaborate with each other and so forth. Thus, policymaker need to play their role by making the use of latest technology 4.0 in teaching and learning process by educators is compulsory. Educators need to attend a training of how to expert in using this advance technology in order to develop their skills and competency. This is one of the ways to assist educators to understand and explore in using these technologies 4.0 in classroom.

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