# EXAMINING THE IMPACT OF E-LEARNING ON RESOLVING WORK PLACE ISSUES IN MANUFACTURING INDUSTRIES AT CHENNAI CITY

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**ABSTRACT**
The performance of every organization may be affected by internal and external factors. The predominant internal factor which may affect the performance of the employee is 'workplace issues' such as bullying, discrimination, role conflict, communication, low motivation & job satisfaction, gossip, etc. In the present research, the researcher has taken only four major workplace issues and wants to find out the effect success of e-learning system on minimizing workplace issues of the selected manufacturing organizations from Chennai city. The sample size of the research is 250, chosen from five different manufacturing organizations. The primary data was collected through the questionnaire with 50 items. The findings of the study revealed that all the three hypothesis formulated based on the conceptual model is true and significant at 1% level. Based on the outcomes of the research it is determined that the successful e-learning systems was able to minimize the workplace issues of the selected manufacturing organizations from Chennai city, India.
**Keywords:** success of e-learning systems, workplace issues, manufacturing industries, role conflict, communication, low motivation & job satisfaction.

## INTRODUCTION

Every individual around the world spends significant portion of their life-time in their workplace. The employees those who find comfortable in the organization used to have long-term association with the organization. Present technological world integrates the individuals from different geographical locations, cultures, and demographic profile in the workplace, which may lead to interpersonal conflict, and workplace issues. All kind of the organization may face workplace issues and there is a need of robust mechanism to prevent, control, and resolve such issues in the organization, because workplace issues may create negative outcomes in the organization such as low motivation & productivity, increase in absenteeism, turnover, etc. Educating the seriousness of the issues and its negative consequences which may affect the individual and organization may prevent, control, and resolve the workplace issues at the least time possible. The organization may use e-learning modules or online resources in order to educate the employees about workplace issues. The proper structuring of e-learning modules with appropriate content may affect the knowledge of the individual which in turn educate them which is right and wrong, and make the changes in the behaviour of the individuals. The foremost objective of the research is to inspect the influence of e-learning on resolving work place issues in manufacturing industries at Chennai city.

## CONCEPTUAL FRAMEWORK OF THE STUDY

**E-Learning:** E-learning is one of the best significant services driven by the internet. It has the possibility to convert in what way and when employees learn and integrates a learning culture with the job atmosphere. It is not only about training and teaching but also about learning that is custom-made to an employee. So E-learning is a plat form where various fields such as web-based training, technology driven instruction and online training come together. Hence tablets, computers and smartphones enable and improve the approach towards e-learning. Workplace is termed as a place where employer-employee build relationship. Here the employer delivers the tools such as e-learning whereas employees have to handle and mature their skills and employability and are finally are accountable for upholding the value that the employee add to the company they are employed. E-learning can encourage employees to devote more time and energy in learning at workplace. The key is that the alternate and flexible learning atmospheres provided by the technology can decrease the hindrances and everyday problems of arrangement learning activities with the job schedules. However, e-learning delivers noteworthy economic and social gains over the traditional classroom learning. Henceforth this e-learning benefits include anytime, anywhere, any location learning, time reduction in attaining new skills because of the

  

nature of e-learning with its visual, feedback mechanism and period taken to learn are the other merits. While with regards to the investment E-learning is considered to increases its payback throughout its lifetime.

**Workplace**
It is the physical place where employee carry on his job for sake of his living. Where a place can vary from a home-office to a big factory or an office building.

**Workplace issues**
It is the issues worried with the working environment, behavior of the employee, flow of communication, employee recruitment & termination, and employee growth, which consequence in the whole performance, constancy, and culture in an organization. It is found that employee nearly spend about one-third of their adult lives at workplace, which reasons for workplace issues to become mutual source of stress for many employees. In the modern world it is highly difficult to have a place of work where each and every employee's role, their anticipations, and personalities match work flawlessly with each other, without conflict. As such, certain workplace issues may even be a reasons for negative psychological symptoms. Moreover research has also indicated that perceived stress at the workplace are related with a higher prevalence of mental health issues which may cause anxiety and depression.

**Issues at Workplace:**
**Role conflicts:** It occurs when there are incompatible demands placed upon a person such that compliance with both would be difficult. Persons experience role conflict when they find themselves pulled in various directions as they try to respond to the many statuses they hold. Role conflict can be something that can be for either a short period of time, or a long period of time, and it can also be connected to situational experiences. Role conflict happens when there are contradictions between different roles that a person takes on or plays in their everyday life

**Communication: It** is the course of exchanging information and ideas. There are various methods of communication. In order to be an efficient and appreciated member at the organization it is significant that you become capable in all of the various methods of communication that are suitable which even include the e-learning methods of communication. It is a two-way process of attainment a mutual understanding, in which members not only exchange data, news, ideas and feelings but also generate and share meaning. In broader sense, communication is a means of linking people or places.

**Low job satisfaction:** Job satisfaction has been defined as a rewarding emotional state succeeding from the appraisal of one's job; an affective reaction to one's job; and an attitude towards one's job. As job satisfaction is a widely researched and complex phenomenon, it follows that there are numerous definitions of the concept.

**Performance issues:**
A performance issue is a failure to meet the basic requirements of a job. They are based on reasonable expectations of behavior and results as defined by a job description, performance objectives, policy and a firm's organizational culture.

## LITERATURE REVIEW

**Impact of e-learning on resolving workplace issues**
Ahmed et al. (2016), in their research highlighted challenges that hinder effective implementation of e-learning in Iraq and recommend possible solutions to tackle them. A total of 108 respondents voluntarily participated in this research. They consisted of academic staff (N=74), professors in charge of e-learning (N=3), and undergraduate students (N=31). Three methods were used to collect data: a survey instrument, semi-structured interviews, and focus groups. Data was then analyzed and reported quantitatively and qualitatively. This provided in-depth understanding to the current status of e-learning in public Iraqi universities and highlighted major hindrances of its successful application. Based on this analysis, the study proffered many recommendations that should be considered in order to fully benefit from e-learning technologies.

Doculan (2016), the development that has taken place in internet technologies has changed globally the learning approaches that are current adopted. With this regards there is no exemption to a county like Philippines. E-learning has become more popular because of its usefulness and potential in the Higher Education Institutions. Therefore it is must for any institution to evaluate the merits and demerits E-learning before it is implemented. This would be able to ascertain the wants and factors that directly affect the readiness to use. The present study is conducted to assess the readiness of Philippine Higher Education Institutions to use E-learning.

  

Noren Creutz and Wiklund (2014), in their research explored the addresses of learning that are portrayed by e-learning at workplace. The basic objective of this research is to know how learning is defined in study inside this area. The researcher has reviewed articles on e-learning at workplace from the year 2000 to 2013, where the results are offered in four descriptions emphasising four overlapping time phases with different truth regimes: celebration, questioning, dissolution and reflection. It is also established form the research that learning as a phenomenon tends to be relegated in relative to the digital technology used. With regards to the above mentioned facts it is debate for a proposal of more critical and problematized method to e-learning, and a deeper understanding of the tasks and prospects for organizations and employees to gain knowledge in the digital era.

Habib Ullah Khan(2013), Communication has a role of heart in all kinds of educational interactions, with the popularization of computer technology for home and office use, teaching methods have changed communication styles from plain lectures to multimedia presentations. These new trends in education are in their infancy, online learning or E-learning, and are quickly becoming an important aspect of education in our future around the world. In spite of easy availability of new multimedia support, still the uses of technological tools of communication in the educational fields are in their initial stages, in the under developing countries like Oman. We have yet to fully experience the transformative effects of these mediums, particularly on web based learning. Group work activities are another main point or task in the high education. Switzer and Shriner were of the view that students are the most obvious party who benefit from group work among students, faculty members, and the community. According to them there are four overlapping types of benefits for students. These are: 1) immediate educational benefits, 2) immediate social benefits, 3) critical thinking benefits, and 4) long-term career benefits. Different researchers were of the opinion that face to face communication will not solve the empowerment problems in group work activities. As, through FTF interaction male dominant role can be produced due to identity of speaker, eye contact, nodding, moving the hands , and facial expressions etc. In this situation suitable adoption of technology can be consider as an alternative mode of communication, where there is a chance of discrimination. This case study will be a further step in addition to the previous technological tools & group work related researches. In this researcher will try to explore that how suitable technological tools can play a role to overcome the group work problems and to increase the performance of the students in the developing countries like Oman.

Chen and Kao (2012). E-learning systems, approved by organizations for training the employee to improve the performance of their employees, which are categorized by self-directed, independent learning. Motivation for learning is very important in designing e-learning practices at workplace. There is very much limited research has been carried out by various researcher in the field of alignment of e-learning with individual learning requirements and organizational goals. This research aims to explain the significance of learning motivation towards e-learning systems by the employees' which is grounded on the information systems achievement model. The researcher has collected the data form 185 employees who access e-learning systems in their work place in Taiwan and investigated through PLS. Outcomes of the research display that employees' motivation towards learning, which reflects their learning wants and strengths, inclined by perceived usefulness and fulfilment towards e-learning, and their use of the systems, which improved their job performance. Moreover the outcome of the study also confirmed that significance of employees' motivation towards learning and the necessity for position of employees' learning requirements and organizational objective is achieved through e-learning training.

Hsiu-Ju Chen (2010), E-Learning systems are progressively has being accepted by todays modern enterprises, since of their cost-down effect. But, the existing literature offers little perception into their beneficial significances. It is anticipated that a transmission of the learned knowledge, skills and attitudes of the employee towards jobs will occur through e-learning systems use. Henceforth it marks e-learning systems a valuable instrument for enlightening outcomes of the job, though it is not properly standardised. The IS achievement model, which captures together the technological and human elements of information systems, delivers a theoretical basis for connecting system use to system job. The present research inspects the association among e-learning systems use and overall outcomes of the job which is grounded on the model. The researcher has collected data from 193 e-learning system users were investigated with partial least square (PLS). The research outcomes display that that e-learning systems are observed as useful and filling the employee's need of e-learning systems use is significantly related with complete outcomes of the job. The outcome show that there is a basis for instituting a link among an organization's investment in e-learning and human capital management, it also advance empirical support to the IS achievement model.

  

Paivi and Paiivi (2005), discovered the application of e-learning as a tool for learning at workplace, where it was used as a form learning for the adult and organizational as well with the theoretical point of view. Moreover the researcher has also review various empirical studies on current explanations to pedagogical difficulties faced in workplace learning in broad view and in specific with regards to e-learning. Lastly, the research has focused on the challenges faced with the further growth of e-learning solutions at the workplace. The researcher has also reviewed theories of adult, workplace and organizational learning to bring out key pedagogical suggestions of these theories from an e-learning view point. But few articles related to electronic networks and communication tools has also been developed for workplace learning are also termed here. The result displays the growth of effective e-learning solutions for the use of work organizations which needs integrated knowledge of research from various sources: sociocultural, cognitive and organization theories of learning. The inference are grounded on empirical illustrations and the literature review pedagogical challenges and theory-based procedures are offered for the design of e-learning atmospheres at workplace. These contain addition of theoretical knowledge with applicants' practical skill, support for the explication of implied knowledge, and backing of association and knowledge exchange among various groups of individuals. Hence this research incorporates various theoretical methods for the design of e-learning atmospheres at work place.

Wagner et al. (2005), the need for training in Occupational Medicine in India is well known. The majority of company doctors cannot leave their work and join a residence program. The question which course delivery mode - residential or blended or distance education - is appropriate to teach working company doctors is therefore an urgent one. Adult education: Adults learners - in contrast to young students - have a lot prior experiences and knowledge which they want to use. They have tight personal schedules and are very practical and goal-oriented. They usually have a fulltime work. Adults need more guides than lecturers. Immediate use, practice by doing and discussion groups are the most powerful tools in teaching. Lecturing seems to be the most ineffective teaching method. Distance education is widely used already in teaching occupational health & safety and occupational medicine (OS H) in other countries. Almost 100% of all post-graduate teaching in occupational medicine is done by distance education in the UK. A "blended" course model seems appropriate for Occupational Medicine teaching. It has contact phases and self-learning phases The Indian Association of Occupational Health could play a leading role in expending high quality teaching in Occupational Medicine. These activities would contribute to the Government's goals to strengthen Occupational Health in India. This article discusses distance education and online teaching as one viable way to deliver high quality training in Occupational Medicine to working company doctors in India.

Elizabeth et al. (2004), Seven in-employment postgraduate Master's level students in an e-learning unit participated in this research, designed to identify tensions between participation in a community of learning that was part of their studies, and participation in the communities of practice that they were engaged in at their workplaces. It was hypothesised that participation in both these forms of community in their different contexts may enhance each other, or could potentially have a disrupting effect on each. The research employed an interviewing technique. The students' perceptions of the impact of participation in the one form of community on their participation in the other was mixed, with some suggesting that it was enhancing, and others suggesting the contrary, or that there was no impact. The findings indicate that the enhancing effect of participation in communities of learning relevant to a learner's workplace community of practice occur when the learning tasks are designed to enable negotiation of tasks and collaboration with learners who have similar workplace issues.

**METHODS & SAMPLES**

The present research is conducted in manufacturing industries context. The descriptive research design is followed in this research. The research is attempted to describe the employees' perception towards success of e-learning systems followed in selected manufacturing industries and its impact on minimizing workplace issues of the organization. The survey was conducted to collect the primary data from the 250 samples from five different manufacturing organizations from Chennai city, India. The structured questionnaire with 50 items, and three sections were used for the survey. In which first section deals with their personal details such as age, qualification, designation, department, experience in the present organization. The second section deals with success of e-learning systems using e-learning success model developed by Holsapple and Lee-Post (2006), which has three major factors namely system design, system delivery, and system outcome, however in the present research the model is slightly modified with 'workplace issues' instead of 'system outcome', because the main purpose of this study is discover the influence of e-learning system on workplace issues, so the questionnaire used in the study has two major factors namely system design, and system delivery. The system design (15 items) has three sub-factors such as system quality (5 items), information quality (5 items), and service quality (5 items), whereas system delivery (10 items) has two sub-factors namely system use (5 items), and user satisfaction (5 items). The third section of the questionnaire deals with workplace issues (20 items) with four sub-factors namely role conflict (5 items), communication (5 items), low motivation & job satisfaction

  

(5 items), and performance issues (5 items). The questionnaire used in the study was pretested using pilot study with 50 samples (10 from each selected manufacturing organization). The results of the pilot study indicates that the questionnaire is reliable and valid. The results of reliability analysis of the questionnaire was tabulated in table 1.

**Table 1.** Reliability analysis results

| S. No | Factors | Reliability Cronbach Alpha |
|---|---|---|
| 1 | System Quality | 0.902 |
| 2 | Information Quality | 0.735 |
| 3 | Service Quality | 0.884 |
| 4 | System Use | 0.821 |
| 5 | User Satisfaction | 0.793 |
| 6 | Role Conflict | 0.931 |
| 7 | Communication | 0.865 |
| 8 | Low Motivation & Job Satisfaction | 0.811 |
| 9 | Performance Issues | 0.926 |

The above table 1, it is establish that all the factors of the research has Cronbach alpha coefficients above than 0.7, which means the questionnaire used in the study is reliable and valid. In the present study, the researcher adopted percentage analysis and structural equation modeling approach using SPSS 20.0 and AMOS 20.0 statistical software.

## RESULTS AND DISCUSSION

The demographic profile of the respondents are summarized in table 2, which describes the age group, designation, department, and experience in the present organization using frequency analysis with frequency and percent.

**Table 2.** Profile of samples

| S. No | Factors | Frequency | Percent |
|---|---|---|---|
| **1** | **Age group** | | |
| | 18 - 25 Years | 43 | 17.20 |
| | 26 - 32 Years | 39 | 15.60 |
| | 33 - 40 Years | 81 | 32.40 |
| | 41 - 48 Years | 56 | 22.40 |
| | More than 48 Years | 31 | 12.40 |
| | | | |
| **2** | **Educational Qualification** | | |
| | ITI | 64 | 25.60 |
| | Diploma | 87 | 34.80 |
| | Undergraduate | 78 | 31.20 |
| | Post-graduate | 21 | 8.40 |
| | | | |
| **3** | **Designation** | | |
| | Junior | 132 | 52.80 |
| | Middle | 86 | 34.40 |
| | Senior | 32 | 12.80 |
| | | | |
| **4** | **Department** | | |
| | Technical | 189 | 75.60 |
| | Non-technical | 61 | 24.40 |
| | | | |
| **5** | **Experience in the Present Organization** | | |
| | Up to 5 Years | 96 | 38.40 |
| | 6 - 10 Years | 56 | 22.40 |
| | More than 10 Years | 98 | 39.20 |
| | **Total** | **250** | **100.00** |

  

Table 2 summarize the profile of the sample with age group, qualification, designation, department, and experience in present organization.

- Around one-third of the samples (32.40%) are aged 33-40 years, 17.20% of them aged 18-25 years, 15.60% of aged 26-32 years, 22.40% of them aged 41-48 years, and only 12.40% of them aged more than 48 years.
- One-fourth (25.60%) of the samples are qualified with ITI from various trades such as fitter, carpenter, welder, machinist, etc. Around one-third (34.80%) of them are qualified with Diploma in various branches such as Mechanical, Electrical & Electronics, Electronics & Communication, etc. 31.20% of them are undergraduates, and only 8.40% of them are post-graduates from Technical, and Arts & science education.
- Majority (52.80%) of the samples are working in junior level positions, one-third (34.40%) of them are working in middle level positions, and only 12.80% of them are working in senior positions in the selected manufacturing organizations from Chennai city, India.
- Most (75.60%) of the samples are working in technical departments in various manufacturing units related to production of products, whereas around one-fourth (24.40%) of them are working in non-technical departments such as stores, administration, etc.
- 38.40% of the sampled employees are having work experience of up to 5 years in the present organization, whereas 22.40% of them are working in 6-10 years, and 39.20% of them are having work experience of more than 10 years in the present organization.

**Impact of E-learning on resolving work place issues using Structural Equation Model**

The conceptual model of the research was formulated based on the extensive literature surveyed by the researcher, and it is presented in figure 1. The impact of success of e-learning on minimizing workplace issues was examined using Structural equation modeling (SEM) approach, in which success of e-learning is an independent variable, and workplace issues is a dependent or outcome variable.

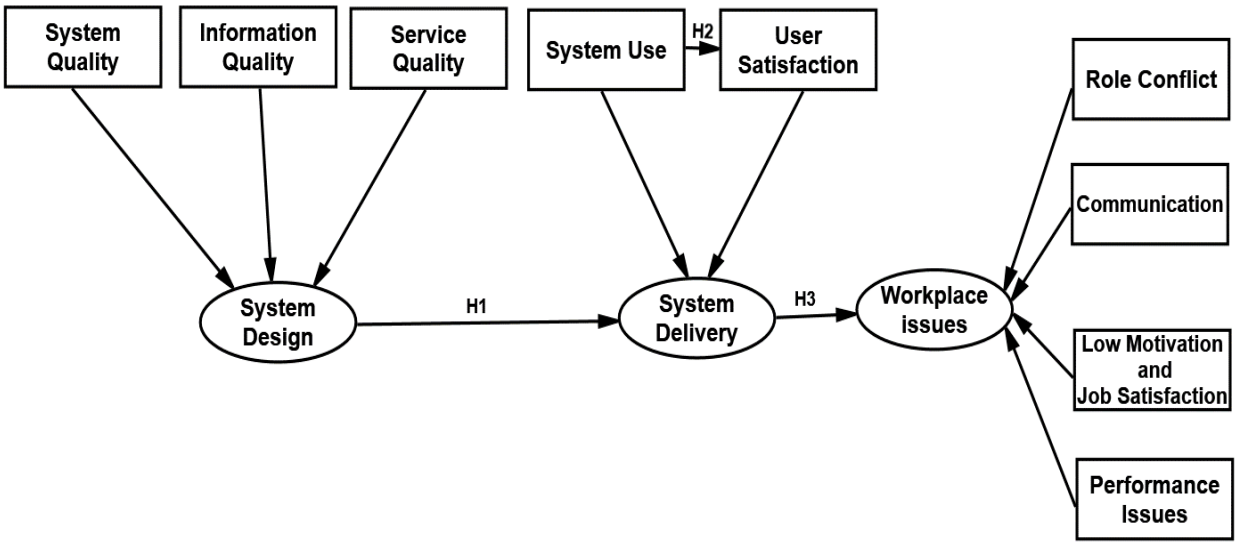


**Figure 1.** Conceptual model

The independent variable has two stages (i.e. system design, and System delivery). The following hypothesis can be formulated and tested using structural equation modeling approach.

H1: System design is having significant positive impact on system delivery.
H2: System use is having significant positive effect on user satisfaction.
H3: System delivery is having significant negative impact on workplace issues (or)
Success of e-learning system is having significant negative impact on workplace issues of selected manufacturing organizations.

  

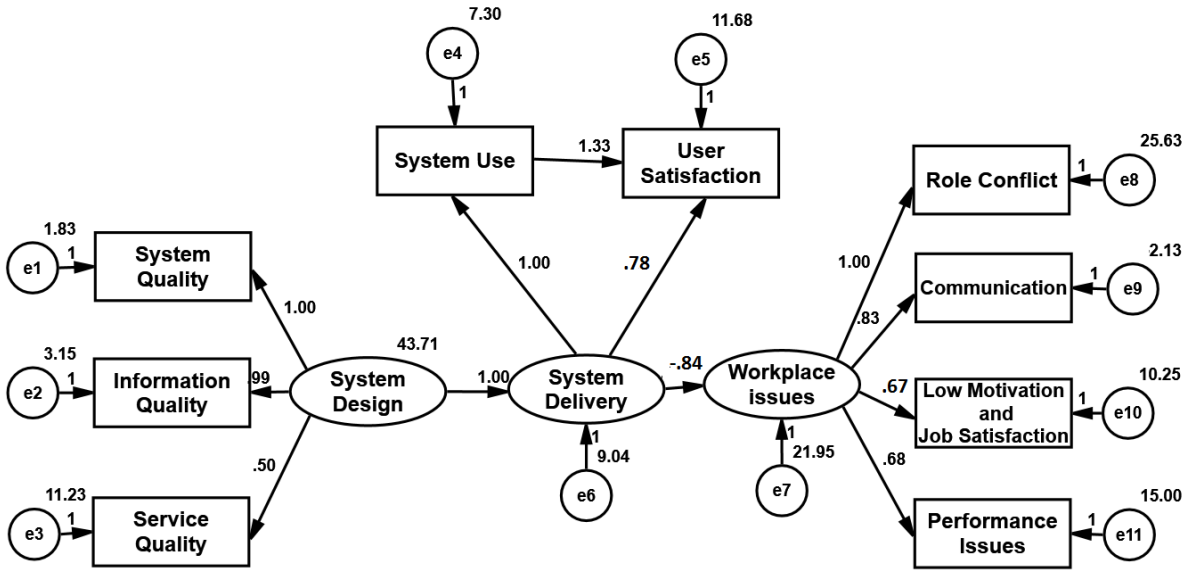


**Figure 2.** SEM Model with unstandardized regression coefficients

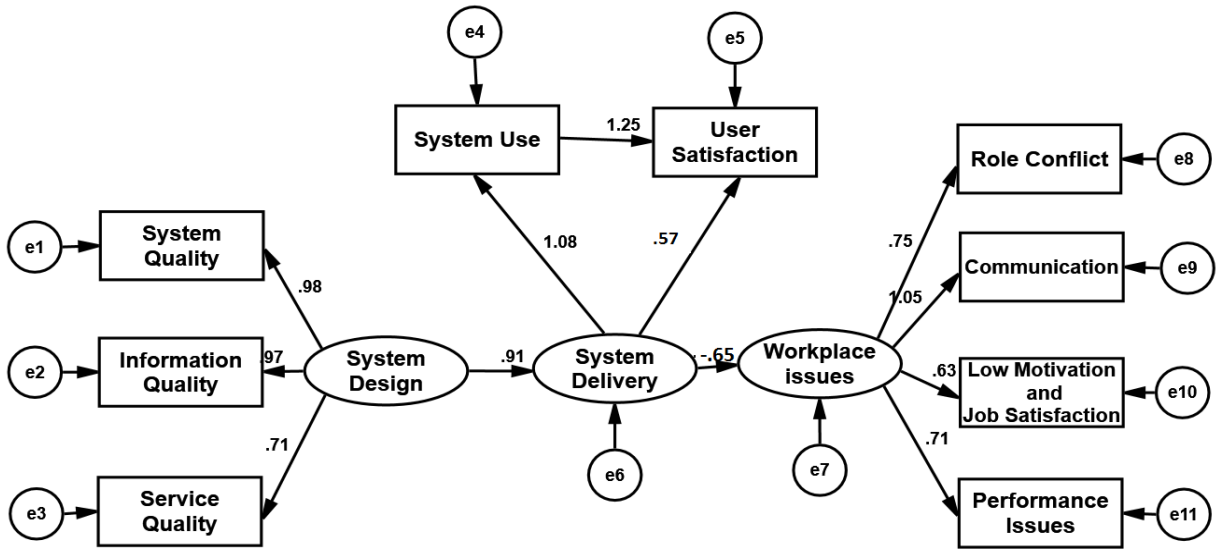


**Figure 3.** SEM Model with standardized regression coefficients

Figure 2 and 3 represents the SEM model of the research with unstandardized and standardized regression coefficients respectively.

From the SEM models shown in the above figures, it is found that all the factors of the system design construct, system delivery construct are having significant factor loading (i.e. more than 0.5).
The standardized regression coefficient of system design on system delivery is 0.91, which is positive and significant at 1% level, whereas the standardized regression coefficient of system use on user satisfaction is 1.25 (i.e. it is also positive and significant at 1% level, and standardized regression coefficient of system delivery and workplace issues is -0.65, which is negative and significant at 1% level, therefore the results of the SEM indicates that all the hypothesis given above based on the conceptual model are true and significant at 1% level.
Model fitness indicates of the above set model such as Chi-square, p value, GFI, AGFI, CFI, NFI, TLI, RMR, and RMSEA are inside the mention ranges which confirms that model is fit with the primary data collected for the research.

## CONCLUSION

The findings of the study indicates that system design is having positive effect on system delivery, whereas system use is having significant positive effect on user satisfaction, and system delivery is having negative effect on workplace issues of the organization, which means the successful e-learning system is able to shape

  

the knowledge, skill, and attitude of the employees and minimizes workplace issues at manufacturing organizations from Chennai city, India. The prevention or eradication of workplace issues can produce positive outcomes in the manufacturing organizations such as enhanced productivity, motivation, morale, loyalty, engagement, commitment, citizenship behaviour, etc. So, through this research it is concluded that educating the employees through the training programmes, and e-learning programmes the organization can minimize the workplace issues in their organizations.

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