

## **E-LEARNING SERVICE QUALITY AND USER SATISFACTION OF INSURANCE INSTITUTION IN TAMIL NADU, INDIA - AN EMPIRICAL STUDY**

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### **ABSTRACT**

The introduction of innovative learning technique called synchronous e-learning in giving learning and preparing has turned out to be main stream in the present e-learning condition. Be that as it may, the adequacy and student fulfillment towards its utilization are as yet dark. This examination is led utilizing the subjective technique to recognize the student fulfillment on the synchronous e-learning style and furthermore to distinguish what are the issues and difficulties that can be enhanced towards the execution of fruitful synchronous e-learning. This investigation has recognized the understudy's fulfillment level towards the utilization of synchronous e-learning and furthermore distinguished a few issues that is connected to the shortcomings of the framework and the difficulties looked by understudies.

**Keywords:** E-learning, Information quality, System quality, Service quality, User satisfaction

### **INTRODUCTION**

E-learning courses of action exist for the two PCs and web; it just takes a better than average e-learning instrument for preparing to be empowered from in every practical sense wherever. Advancement has pushed so much that the land gap is crossed with the use of contraptions that impact you to feel just as you are inside the classroom. E-learning offers the ability to share material in an extensive variety of designs, for instance, chronicles, slideshows, word reports and PDFs. Driving on the web classes (live online classes) and talking with instructors by methods for talk and message exchanges is moreover a decision open to customers. There are a lot of different e-learning structures (likewise called Learning Management Systems, or LMSs for short) and procedures, which consider courses to be passed on. With the right device distinctive techniques can be motorized, for instance, a course with set materials and thus stamped tests.

E-learning is a direct (and frequently free) plan which outfits the understudies with the ability to fit learning around their lifestyles, effectively allowing even the busiest individual to energize an employment and increment new capacities. Without a doubt the most basic progressions in direction have happened since the dispatch of the web. These days' understudies are learned in the use of mobile phones, content advising and using the web so partaking in and running an online course has transformed into a fundamental illegal relationship. Message sheets, electronic informal communication and distinctive techniques for online correspondence empower understudies to remain in contact and look at course related issues, while pleasing a sentiment gathering. In the speedy paced universe of e-taking in the open advancements to make a course new and stimulating are constantly changing, and course substance can and should be revived quickly to give understudies the to a great degree latest information. This is especially basic if the e-getting the hang of planning is being given to specialists in a fragment were remaining up with the most recent on industry enhancements is completely basic. This is one motivation behind why various associations are by and by offering planning by methods for e-learning - distinctive reasons fuses low costs and the limit with regards to specialists to analyze time allowing and put. As a rule, standard learning is expensive, takes a long time and the results can change. The essentialness of E-learning is directly a given truth and it can offer an alternative that is impressively speedier, more affordable and conceivably better.

All though e-learning has not possessed the capacity to satisfy its guarantee in upsetting corporate preparing in India, there is little uncertainty that in future the method of learning will assume a noteworthy part in human asset advancement in India in light of the fact that the exploration completed on the fruitful execution of e-learning is for the most part in the western piece of world (Vivek Agrawal et al, 2017 & Yung-Ming Cheng, 2012) Information quality, benefit quality, framework quality, and teacher quality, as the predecessors of

e-learning acknowledgment can give point by point records of the key powers supporting workers' discernment with respect to their convictions (i.e. seen convenience, saw usability, and saw delight), and this circumstance can additionally upgrade workers' utilization goal of the e-learning framework. Ian Roffe (2002) investigates the down to earth and hypothetical issues associated with the assessment, quality affirmation and engagement of working an e-learning program as a separation learning administration on a global reason for individuals in business. Yung-Ming Cheng (2014) Information quality, framework quality, bolster benefit quality, and educator quality contribute altogether to apparent helpfulness (PU), affirmation, and stream, which together clarify medical attendants' fulfillment with the use of the mixed e-learning framework, and this thusly prompts their proceeded with framework use goal.

Chiao-Chen Chang (2013) he found that esteem and fulfillment decides clients' continuation goals of e-learning frameworks in scholastic libraries. This examination addresses self-reported duration aims as a major aspect of the review; accordingly, it could have presented errors. The ramifications of proposed e-learning achievement demonstrate are talked about. Scholastic administrators ought to fortify the proficiency of e-learning frameworks to impact clients' eagerness to consistently utilize such frameworks. Ulf Daniel Ehlers (2009) despite the fact that the topic of value is disputably examined as of now while e-learning 1.0 showed up available, e-learning 2.0 makes considerably greater instability. This paper goes for noting the accompanying inquiries: what constitutes the new, creative component, which is depicted by Web 2.0 and e-learning 2.0? Does this advancement have results for how it guarantees, oversee and create quality in e-learning? In three stages, it is depicted what e-learning 2.0 constitutes, which essential components of Web 2.0 it expands on, and what has changed. In a moment, step the outcomes this suggests for quality advancements in e-learning are talked about.

Antonia Stefani et al (2006) separate learning has been broadly inquired about the previous couple of years; all things considered the concentrate has been more on its mechanical measurement. Planning, creating and supporting a huge scale e-learning application for Higher Education is as yet a testing assignment from various perspectives. E-learning is data-intensive, user-driven, and has expanding requirements for multiculturalism, productivity, adaptively and competitiveness. In spite of the fact that the many-sided quality of such frameworks has expanded exponentially, the plan procedure still does not have a deliberate quality control strategy. In this work we address the expanding requirement for new strategies that boost ease of use, and consequently end-user fulfillment. We examine the mechanical, administrative and monetary components that influence the outline and sending of a huge e-learning stage with cutting edge benefits and propose an arrangement of new measurements for evaluating its quality.

Sway little (2003) TATA Interactive Systems (TIS), which has one of the world's biggest groups for the plan and improvement of custom-built e-learning arrangements, is focused on accomplishing the most demanding quality benchmarks. Towards the finish of a year ago, TIS turned into the primary organization giving custom-built e-learning answers for be evaluated at level 5 on the capacity development show (CMM) scale. The CMM is the most thorough quality standard world-wide and includes driving organizations, for example, Boeing, Raytheon, IBM, NASA and Motorola. Its esteem and esteem well-known inside the IT world – are starting to be perceived inside the e-learning scene as well. One key segment in TIS's drive for reliable high caliber is its use of "six sigma" procedures to its improvement and creation forms. This is investigated in the article, first by depicting an "outside-in" approach, at that point key ideas, and venture stages, changing business forms, a three-step cycle and criteria or mysteries for venture achievement.

## REVIEW OF LITERATURE

Alistair Inglis (2008) six strategies for approval were found to have been utilized as a part of connection to improvement of the seven systems that were analyzed: assessing the exploration writing identified with viability in web based picking up; looking for contribution from a specialist board; undertaking observational research; undertaking overview examine; leading pilot tasks; and drawing on contextual analyses. From the assortment of methodologies utilized and the courses in which they were utilized it was inferred that a perceived arrangement of strategies for approval of value structures has not yet risen. This paper attracts consideration regarding the requirement for more thoughtfulness regarding be paid to the advancement of techniques for approval that are both goal and vigorous. Andrew Ettinger et al (2005) a social change needs to occur in associations for e-learners to participate all the while. Mixing e-learning with different types of learning can be a valuable prologue to the train, however eagerness soon wears off. Basic protections from the idea are investigated including absence of time and the forlornness of e-learning, and how the "anyplace, whenever" component of the arrangement can be as a lot of a block starting at an assistance. Andrew Ettinger et al (2006) E-learning ought to not really be utilized to supplant classroom preparing as it isn't appropriate for everything. You have to ensure that the learning or preparing needs drive the innovation as opposed to the next path round, and the innovation itself can represent a

large number of issues. The time included is additionally ordinarily belittled, similar to the different scope of individuals who ought to be associated with the start-up group.

Baomin Li (2009) the utilization of e-learning in this pre-service instructor instructional class is effective on the grounds that it accomplishes the normal objective. The self-study capacity of pre-service instructors is moved forward. Students additionally take an interest effectively. Be that as it may, promote change should be done in educational modules outline instructor bolster. Debjani Bhattacharya et al (2012) seven develops as takes after; national centrality, exchange straightforwardness, specialized sufficiency, ease of use, finish data, protection and security and helpfulness of data were distinguished from the investigations, which can be utilized to survey the request side administration nature of government entryways. Regardless of a well-structured, national-level anticipate e-government and satisfactory subsidizing in India, a large portion of the activities under the plan are far beneath the desire level of residents. Technology-enabled applications have guaranteed simple access to taxpayer supported organizations with monetary pick up in specific cases, yet they have not guaranteed subjects' fulfillment. Enhanced administration quality in view of natives' need and desire can diminish the hole amongst outline and reality and go about as positive trigger for reception of e-government. This examination can help government gateway engineers get knowledge into clients' needs to enhance the plan and execution of online administrations. The issues are noteworthy and can't be disregarded practically speaking. Galamoyo Male and Colin Pattinson (2011) they found that how interface configuration can decidedly improve the quality characterizing attributes of learning in an e-learning domain. Methods for accomplishing these qualities of learning through powerful e-learning are accounted for. This is finished by tending to necessities for quality-learning through successful interface-design contemplations, towards meeting the general quality prerequisites of discovering that ought to be natural for an all encompassing e-learning condition. The estimation of human PC communication and the basic variables of advancing profitable association are tended to.

Hamed Taherdoost (2017) secrecy, trustworthiness, protection, confirmation, non-disavowal and accessibility are predecessors of customers' apparent security in e-benefit. Thinking about the high centrality of saw security, it is reasoned that upgraded sentiments of security will bring about enhanced view of value. Besides, it is discovered that clients will expect to utilize e-benefit on the off chance that they feel that the nature of e-benefit is high. Jennifer Ireland Helen Mary Correia and Tim Mark Griffin (2009) they distinguishes a few highlights of the new structure that vary from different models and clarifies the consideration of these highlights as far as the help they accommodate quality change at a college where scholastics are the fundamental planners of e-learning locales. Joan Buckley (2003) beginning confirmation proposes that e-service conveyance has more prominent potential for achievement out in the open division errands that have low or constrained levels of multifaceted nature. At last, the paper presumes that any talk of e-public benefit must take discernment of the specific circumstance, both inside and outside, in which e-service is conveyed.

Josephine Csete and Jennifer Evans (2013) it is suggested that e-learning ventures require watchful arranging, framework and overseeing. Likewise that guiding, assessment and formal revealing and also the accessibility of expert, specialized and instructional plan bolster are noteworthy factors in progress. This paper is preparatory work. Encourage discoveries and investigations are normal at the last fruition of all activities. An abundance of information is accessible in gathered task documentation and reports, incorporating singular undertaking assessments with quantitative and subjective information. Kevin Young (2002) takes a gander at the discoveries of a noteworthy e-learning benchmark contemplate led in July/August 2001 among senior level officials inside UK plc crosswise over industry/fabricating/retail, monetary administrations, government, training and IT/telecoms segments. Contrasts the discoveries and a comparable bit of research did in 2000 to build up how e-learning has created. Inspects current preparing and HR issues, preparing needs, zones in which preparing is given, the most prominent sorts of preparing conveyance, the status of e-learning, mindfulness and comprehension of e-learning, current utilization, purposes behind executing e-learning, benefits foreseen and as of now experienced by early e-learning adopters, rate of profitability and desires for what's to come.

Dwindle A.C. Smith and John Peters (1998) Considers the qualities of "activity getting the hang of", noticing a portion of the significant organizations which have used this approach, including the British Airports Authority. Takes a gander at an ordinary activity learning program which includes angles, for example, handling genuine issues and working in little gatherings or "sets", and notes advantages, for example, the way that the projects can be intended to suit the association and that the brightest individuals in the organization can be tested to take care of basic issues.

Raphaël K. Akamavi (2005) the way toward opening an understudy ledger is archived in a flowchart/stream arrange, which features operational advances and the perceive line amongst front-end and private alcove staff. This procedure mapping system/flowchart takes into account the conclusion and distinguishing proof of both

potential and real bottlenecks in the current procedure, which kept a quality administration experience for the client. Subsequent to delineating this tricky territories/non-value included exercises, the embraced subjective triangulated methodological approach yields an overhauled flowchart showing these progressions. Besides, this paper proposes a re-engineered procedure (i.e. e-process or virtual process), which evacuates these bottlenecks efficiently.

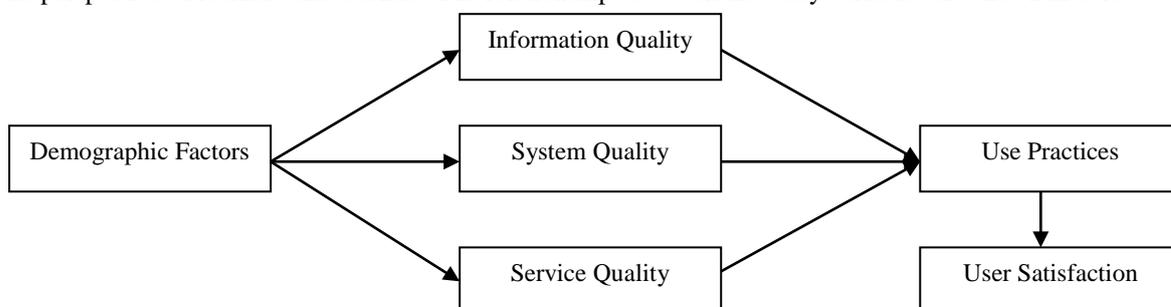
Shirley Alexander (2001) the concentration of much e-learning action is upon the improvement of courses and their assets. Fruitful e-learning happens inside an unpredictable framework including the understudy understanding of taking in, instructors' methodologies, educators' arranging and considering, and the instructing/learning setting. Staff advancement for e-learning centers around the level of innovative conveyance systems when different issues, for example, the instructors' origination of learning affects the arranging of courses, improvement of showing techniques and what understudies realize. This article proposes a more exhaustive structure for the outline, improvement and usage of e-learning frameworks in advanced education

### RESEARCH GAP

Despite the fact that it is of critical significance to have a wide applied model portraying the intricacy of e-learning usage, most e-learning research is sporadic and scattered in nature, and frequently yields opposing discoveries. It appears that these discoveries identified with look into on separate training are likewise relevant to the exploration on the computerized innovations. There is additionally an awesome requirement for more research on the part of culture and social contrasts in the usage of the advancements in various national locales and in differing instructive and preparing conditions Cost adequacy constitutes a huge issue in the usage of the electronic advances, especially at multi grounds colleges and separation educating suppliers. It appears that economies-of-scale gave by the expansive separation showing colleges, working on the premise of the mechanical model, additionally persuaded that concentrate through data and correspondence innovations ought to be financially savvy.

### THE STUDY FRAMEWORK

The study assumes that system quality affect the efficiency of e-learning systems through three dimensions (information quality, system quality and service quality), and therefore the study evaluated each dimensions from the perspective of learners and teachers. The relationships between the study variables are shown in below:



**Figure 1: The Study Framework**

### RESEARCH METHODOLOGY

This evaluation of information technology in e-learning system was a cross-section survey performed on a sample selected from a population of students involved in academic work using e-learning or online learning methods in a regular basis. The questionnaire was distributed to the participants via e-mail because of fast response and low cost, and need for short time to collect information and data. The study used software application in Surveymethods.com and utilized an online survey, deploy the questionnaire via e-mail, and collect data and make analysis to the collected data from the participants. The questionnaire was divided to three parts: (1) A brief profile and demographic data of participants (2) Addresses the user's perception and attitude of e-learning systems and system quality in particular (3) Ask participants to rank dimensions of system quality from the perspective of e-learning. The study analysed the collected data from part 3 in the questionnaire using Statistical Package for the Social Sciences (SPSS) software package to identify impact of information

quality, system quality and service quality dimensions on the efficiency of e-learning systems and to build the final quality conclusion and future framework.

**RESEARCH OBJECTIVES**

To identify demographic factors influencing towards e-learning quality in insurance institution  
To determine the relationship between e-learning quality and user satisfaction

**THE RESEARCH HYPOTHESIS**

The study attempt to verify the following two hypotheses:

H<sub>0</sub>1: There is no significance difference between gender and e-learning system

H<sub>0</sub>2: There is no positive relationship between e-learning system and user satisfaction

**RESULTS ANALYSIS AND DISCUSSION**

The term ‘analysis’ refers to the calculation of certain measures along with searching for patterns of relationship among variables that exist between different data groups.

**Table 1: Demographic Classification of the Respondents**

Demographic Variables		Frequency	Total (Percentage)
Gender	Male	153 (83.6)	265 (100)
	Female	112 (16.4)	
Year	First	65 (24.5)	265 (100)
	Second	90 (33.7)	
	Third	110 (41.7)	

The analysis of the demographics in Table 1 shows that 83.6% of respondents are male and 16.4% are female. The percentage of female is showing a decline. According to the year wise of respondents, it shows that 24.5% of respondents are in the first years, 33.7% are second year and 41.7% of them are third year. Thus it can be interpreted that highest percentage was third year.

**Table 2: Mean and SD Value of Information Quality**

E- Learning Factors		Mean	SD
Information Quality	Completeness	3.62	1.07
	Well organized	3.51	1.03
	Effectively presented	3.84	0.98
	Of the right length	3.91	0.95
	Clearly written	3.49	1.08
	Useful	3.84	1.07
	Completeness	3.74	1.13
System Quality	Easy to use	3.62	1.07
	User friendly	3.51	1.03
	Stable	3.84	0.98
	Secure	3.91	0.95
	Fast	3.49	1.08
Service Quality	Prompt	3.62	1.07
	Responsive	3.51	1.03

	Fair	3.84	0.98
	Knowledgeable	3.91	0.95
	Available	3.49	1.08
<b>Use Practices</b>	Power point slides	3.62	1.07
	Audio	3.51	1.03
	Script	3.84	0.98
	Discussion board	3.91	0.95
	Case studies	3.51	1.03
	Practice problems	3.84	0.98
	Excel tutorials	3.91	0.95
	Assignments	3.49	1.08

Source: Primary Data

By referring to demographic characteristics of private engineering institution faculty members in Tamil Nadu and PMS factors scores in table 3. Independent sample t-test has been conducted in order to examine the significance of relationships between them.

**H<sub>0</sub> 1: There is no significant difference between Gender and E-Learning factors**

**Table 3: T Test for Gender Vs. PMS Factors Scores**

E-Learning factors		N	Mean	SD	T	Sig
Information quality	Male	153	3.71	0.72	.059	0.004
	Female	112	3.69	0.68		
	Total	265	3.71	0.71		
System quality	Male	153	3.71	0.72	.029	0.001
	Female	112	3.69	0.68		
	Total	265	3.71	0.71		
Service quality	Male	153	3.61	0.92	.042	0.008
	Female	112	3.47	0.65		
	Total	265	3.45	0.65		
Use Practices	Male	153	3.61	0.92	.039	0.006
	Female	112	3.41	0.75		
	Total	265	3.55	0.54		

Table 4 is the independent t-test analyses of perception of respondents based on gender. In the table, the E-learning factors and use practices mean, SD and significance value can be observed. In information, mean value of male is (M =3.71, SD = 0.72), female is (M = 3.69, SD = 0.68), enduring cited above for mean and SD value and there is a significant relationship between gender and Information quality, system quality and service quality because the significant value is less than 0.05. There is a significant relationship between gender and employee integration because the significant value is less than 0.05.

**H<sub>0</sub> 2: There is no significant relationship between E-learning Quality and User Satisfaction**

**Table 4: Regression for E-learning Quality and User Satisfaction**

R	R Square	Adjusted R Square		Std. Error of the Estimate	F	Sig
.246 <sup>a</sup>	.060	.059		1.0034	63.17	.000 <sup>a</sup>
Coefficients <sup>a</sup>		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
(Constant)		2.295	.170		13.52	.000
Information quality		.357	.045	.246	7.95	.001
System quality		.347	.044	.248	6.95	.020
Service quality		.337	.037	.252	6.85	.003

Source: Primary Data a. Dependent Variable: User Satisfaction

R is the coefficient of correlation, which is 0.246 and R square is coefficient of determination i.e. 0.060 which explains the change in E-learning quality may leads to change in user satisfaction in terms of ratio. More the R square better the model, F value is 63.17 which is more than threshold value of 4. Since significant value is <.05 so it is significant at minimum 5% level. Therefore, an E-learning quality variable positively influences user satisfaction. In this association null hypothesis is rejected.

**FINDINGS AND SUGGESTIONS**

This article has endeavored to unbundle the issue of characterizing a wide calculated system for the utilizations of electronic innovations in instructive and preparing settings, and additionally to analyze the obstructions intrinsic in their real usage. It appears that both the talk on e-learning and its related research are as of now in motion. The article made four noteworthy focuses. To start with, the talk on cutting edge advancements is portrayed by an extensive rundown of difficult to-recognize terms. This confounding wording originates from the way that the variable innovative capacities are rich and complex. It doesn't appear to be conceivable at this phase to total the various terms into one acknowledged term, to be utilized by all specialists and analysts in this field. It is probably, that new terms will enter the talk on innovations in picking up/showing forms as new advancements and new mechanical applications keep on developing.

Notwithstanding, it is conceivable to issue a supplication to all players in the e-learning field to clarify unmistakably the correct parts of the innovation, which they are alluding to in their exchange or potentially inquire about, to indicate whether the execution happens in grounds based, remove educating or mixed learning situations, and to relate the degree to which the innovation enlarges or replaces customary practices. Such an elucidation may help incredibly in merging the various bits of ebb and flow examines discoveries into a more sound system and in leading a coherent exchange. Second, the time appears to be ready to recognize the way that putting the understudies in the focal point of the learning procedure, and accepting that the data and correspondence advances have the energy of transforming them into self-coordinated and self-sufficient students have ended up being very gullible and unconfirmed presumptions. Most understudies, even computerized locals that were conceived with a mouse in their grasp, can't and unwilling to control completely or to a great extent their investigations. Educators ought not to be seen just as aides as an afterthought. They have an enormously essential part in executing the extensive variety of potential outcomes empowered by the new advancements. Be that as it may, their parts are not undeniable. Emerging the capability of the advancements in getting the hang of/showing settings does not mean simply transplanting the acts of up close and personal experiences to the innovative milieu.

The two understudies and educators should be prepared to wind up noticeably capable PC literates, and emotionally supportive networks ought to be given on a continuous premise all through the examination procedure. Certainly, these constitute testing undertakings which require speculation of cash, time and fitting mastery. Third, the examination on e-learning is set apart by huge holes, especially at the institutional and framework wide levels. There are as of now a huge number of scattered investigations at the small scale level of educating and learning in classroom settings, regardless of whether virtual or genuine. These investigations yield

opposing outcomes, experience the ill effects of different predispositions, and for the most part don't yield hearty conclusions that empower approach creators to utilize them in an understandable way. Incredible exertion ought to be contributed by organizations and governments to design wide-scope thinks about, to enhance the nature of existing examinations on the utilizations of innovations in different settings, and to combine the numerous discoveries into a thorough structure that may serve arrangement producers, professionals, and specialists at various levels.

Fourth, both the exploration and routine with regards to e-learning are implanted with innate difficulties that ought to be handled by all members. Innovations create at a quickened rate that makes it hard to consider their effect reflectively. Basic factors in the usage procedure ought to be distinguished that are less delicate to the advancement of new innovations. The advantages of utilizing advancements ought to be considered in connection to their cost or included esteem. Not very many examinations exist right now on the expenses of applying the new advances. Advancements ought not to be executed by any methods since they are thought to be creative in nature. They ought to be actualized just on the off chance that they end up being to be better or less expensive. Furthermore, last, designers of new advances ought to know about the effect of creative advances on the narrowing or he augmenting of the computerized hole amongst rich and poor and amongst created and creating nations. Portable advancements today can possibly diminish the computerized separate, while some other imaginative advances are expanding the hole. Crossing over finished the advanced gap constitutes a consuming need in the worldwide and interconnected world in which we live.

## CONCLUSION

The investigation inferred that framework quality is the fundamental factor the effectiveness of e-learning framework and consequently e-learning frameworks take thought on the measurements of framework quality. The us capacity factor was found as the most grounded measurement that influence the framework quality The examination suggests that future investigations should direct further assessment to different measurements for example, objectivity, fulfillment, and consistency, likewise analyze the connection between framework interface and data quality.

## REFERENCES

- Alistair Inglis (2008) "Approaches to the validation of quality frameworks for e-learning", *Quality Assurance in Education*, Vol. 16 Issue: 4, pp.347-362
- Andrew Ettinger, Viki Holton and Eddie Blass (2005) "E-learner experiences: learning from the pioneers", *Industrial and Commercial Training*, Vol. 37 Issue: 6, pp.286-290
- Andrew Ettinger, Viki Holton, Eddie Blass (2006) "E-learner experiences: key questions to ask when considering implementing e-learning", *Industrial and Commercial Training*, Vol. 38 Issue: 3, pp.143-147.
- Antonia Stefani, Bill Vassiliadis, Michalis Xenos, (2006) "On the quality assessment of advanced e-learning services", *Interactive Technology and Smart Education*, Vol. 3 Issue: 3, pp.237-250
- Baomin Li (2009) "The use of e-learning in pre-service teacher education", *Campus-Wide Information Systems*, Vol. 26 Issue: 2, pp.132-136
- Bob Little (2003) "Six sigma" techniques improve the quality of e-learning", *Industrial and Commercial Training*, Vol. 35 Issue: 3, pp.104-108
- Chiao-Chen Chang (2013) "Exploring the determinants of e-learning systems continuance intention in academic libraries", *Library Management*, Vol. 34 Issue: 1/2, pp.40-55.
- Debjani Bhattacharya, Umesh Gulla and M.P. Gupta (2012) "E-service quality model for Indian government portals: citizens' perspective", *Journal of Enterprise Information Management*, Vol. 25 Issue: 3, pp.246-271
- Galamoyo Male and Colin Pattinson (2011) "Enhancing the quality of e-learning through mobile technology: A socio-cultural and technology perspective towards quality e-learning applications", *Campus-Wide Information Systems*, Vol. 28 Issue: 5, pp.331-344
- Hamed Taherdoost (2017) "Understanding of e-service security dimensions and its effect on quality and intention to use", *Information & Computer Security*, Vol. 25 Issue: 5, pp.535-559.
- Ian Roffe (2002) "E-learning: engagement, enhancement and execution", *Quality Assurance in Education*, Vol. 10 Issue: 1, pp.40-50
- Jennifer Ireland Helen Mary Correia and Tim Mark Griffin (2009) "Developing quality in e-learning: a framework in three parts", *Quality Assurance in Education*, Vol. 17 Issue: 3, pp.250-263
- Joan Buckley (2003) "E-service quality and the public sector", *Managing Service Quality: An International Journal*, Vol. 13 Issue: 6, pp.453-462

- Josephine Csete and Jennifer Evans (2013) "Strategies for impact: enabling e-learning project initiatives", *Campus-Wide Information Systems*, Vol. 30 Issue: 3, pp.165-173
- Kevin Young (2002) "Is e-learning delivering ROI?", *Industrial and Commercial Training*, Vol. 34 Issue: 2, pp.54-61
- Peter A.C. Smith, John Peters, (1998) "Learning about service quality", *Managing Service Quality: An International Journal*, Vol. 8 Issue: 2, pp.119-125
- Raphaël K. Akamavi (2005) "Re-engineering service quality process mapping: e-banking process", *International Journal of Bank Marketing*, Vol. 23 Issue: 1, pp.28-53
- Shirley Alexander (2001) "E-learning developments and experiences", *Education + Training*, Vol. 43 Issue: 4/5, pp.240-248
- Ulf Daniel Ehlers (2009) "Web 2.0 – e-learning 2.0 – quality 2.0? Quality for new learning cultures", *Quality Assurance in Education*, Vol. 17 Issue: 3, pp.296-314
- Vivek Agrawal, Sucheta Agarwal, Anand Mohan Agrawal, (2017) "Perception of employees toward e-learning service quality: exploratory factor analysis", *Industrial and Commercial Training*, Vol. 49 Issue: 7/8, pp.350-356
- Yung-Ming Cheng (2014) "Extending the expectation-confirmation model with quality and flow to explore nurses' continued blended e-learning intention", *Information Technology & People*, Vol. 27 Issue: 3, pp.230-258
- Yung-Ming Cheng, (2012) "Effects of quality antecedents on e-learning acceptance", *Internet Research*, Vol. 22 Issue: 3, pp.361-390