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Message from the Editor-in-Chief

Hello from TOJDEL

TOJDEL welcomes you. TOJDEL looks for academic articles on the issues of distance education and e-learning and may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should discuss the perspectives of students, teachers, school administrators and communities. TOJDEL contributes to the development of both theory and practice in the field of distance education and e-learning. TOJDEL accepts academically robust papers, topical articles and case studies that contribute to the area of research in distance education and e-learning.

The aim of TOJDEL is to help students, teachers, school administrators and communities better understand how to organize distance education for learning and teaching activities. The submitted articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJDEL. TOJDEL provides perspectives on topics relevant to the study, implementation and management of learning with technology.

I am always honored to be the editor in chief of TOJDEL. Many persons gave their valuable contributions for this issue.

TOJDEL will organize the IDEC-2019 International Distance Education Conference (IDEC 2014) (www.id-ec.net) in August, 2019 in Fairfax, VA., USA.

Call for Papers

TOJDEL invites article contributions. Submitted articles should be about all aspects of distance education and e-learning. and may address assessment, attitudes, beliefs, curriculum, equity, research, translating research into practice, learning theory, alternative conceptions, socio-cultural issues, special populations, and integration of subjects. The articles should also discuss the perspectives of students, teachers, school administrators and communities.

The articles should be original, unpublished, and not in consideration for publication elsewhere at the time of submission to TOJDEL.

For any suggestions and comments on the international online journal TOJET, please do not hesitate to fill out the comments & suggestion form.

April 01, 2019

Editors,
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ASSESSING BUSINESS STUDENTS' EXPERIENCES WITH E-LEARNING IN A GHANIAN UNIVERSITY

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ABSTRACT
Objective: Though e-learning has gained root in most universities all over the world that has resulted in the change of doing the business of teaching and learning, there are others where this is not so. This paper sought to investigate the perception of students using a Moodle platform from a university where the use of e-learning platform to supplement classroom's instructional delivery is not mandatory thus almost all courses do not use such platforms. **Design**: A purposive sampling questionnaire was used in this study to solicit the views of third year business students after using the platform for two courses taught by the author in both semesters of the 2016/17 academic year. A link from Google form that contains the questionnaire was inserted into the Moodle platform for all 414 students who enrolled for the two courses to fill. In all 349 students completely filled the questionnaire indicating a response rate of 84.3%, which was deemed adequate for the study. **Results**: It was observed that overwhelming majority of the respondents own computing devices spending more than half of each day using those devices. They also use computers for academic purposes (studying and researching) while using mobile devices for non-academic purposes (personal life and social networking). Finally, they have positive impression with studying with the Moodle LMS whiles they identified some challenges in using the said platform. **Conclusions**: Respondents are ready for e-learning take off since they own their devices, spend most of the time with them and are digital savvy. The identified issues with the existing Moodle platform should be addressed before it is made mandatory.
Keywords: Students' perceptions, Moodle learning environment, experiences of e-learning, questionnaire survey.

INTRODUCTION

It is evident that the ways organizations conduct their businesses has changed and this changes will continue to occur. This is by the courtesy of Information Technology-mainly used in United States or it equivalent term Information and Communication Technology (ICT)- mainly by the rest of the world. The radical nature of this change has led to the call for people not only becoming technological literate but rather technological competent if we are to take active part and play meaningful role in the world that is being controlled by technology. What once used to be the domain of only computer scientists, programmers, engineers, and scientists, the ICT field is now viewed as an indispensable resource for organizational and personal productivity—that is, for achieving an organization's business goals, and for facilitating the attainment of an individual's life and career goals. Students need to be trained in new ICT skills if they are to function in the changed global environment (Anderson, 2010, p.14) and equip them for life's challenges for today and tomorrow. Thus mastery of technology tools is a requirement rather than an option for enhancing current personal and academic performance as well as future business performance. Students are to use technology to search for the right information for their coursework and also broaden their knowledge in their chosen disciplines. It can be observed that the use of technology for teaching and learning is paramount to the success of students both at school and future working life. Thus universities are spending heavily on electronic learning (e-learning) infrastructure to provide the necessary platform where our students' digital skills would be developed. Building the e-learning infrastructure does not guarantee its usage, conscious effort is needed through policies and motivation is needed in making the decision of using e-learning in technologically starved institutions in developing nations like the University of Cape Coast to become a reality.

Like many other technological concepts, electronic learning (aka e-learning) does not have universally accepted definition. In its simplest term, e-learning is first and foremost learning driven and enhanced with digital technology. With the use of the Internet technologies in learning, learning can be done anytime, anywhere and anyhow. Where ICT provides the vehicle, e-learning can be described as the journey, with increased knowledge, understanding and skills as the destination (Anderson, 2010, p.38). Ideally, the focus of e-learning is the learner who participates in learning activities through the use of ICT to fulfil learning objectives. The learner uses ICT to interact with content on the web. In a general term e-learning is used to refer to a form of instruction and learning system in which the teacher and students or the participants involved in the production and consumption of information, do not necessarily meet physically, but rather are separated by time, distance (space), or both. This separation is bridged with the help of ICT, including the Internet and emergent educational technologies" (Alkhalaf, Drew& Alhussain, 2012, p.1).

Universities deployed e-learning technologies for various reasons among which are:

- It is natural for students, who are mostly digital natives who like using technology at the least opportunity,

- It makes students attain the twenty-first century (C21st) skills that is necessary for survival in knowledge economy and technologically advancing world,
- It enhances the technological competency of students,
- It prepares students for the working world that uses technology to enhance productivity,
- It prepares students for lifelong learning,
- It is one of the ways that organizations are using for staff professional development,
- It is a means by which institutions develop digital dexterity among key stakeholders of teaching staff and students.

The University of Cape Coast started using e-learning via a WebCT learning system management (LMS) to support the traditional face-to-face (F2F) learning in 2003 when it became a Learning Centre for Africa Virtual University (AVU)/ Royal Melbourne Institute of Technology (RMIT) Bachelor of Science in Computer science degree. In 2006, the Computer Centre conducted a survey on the preferred instructional delivery mode to both the pioneering group of UCC/AVU/RMIT BSc Computer Science students and their counterpart studying BSc Computer Science at UCC. The result indicated their preference for blended learning mode of teaching and learning. In 2007, the Computer Centre installed a Moodle e-learning system and since then the system has been used successfully for many courses among which are BUS303/EMG302-Management Information System 1 and BUS304/EMG303-Management Information System 2. With regards to e-learning, the university e-learning strategy plan for 2012-2017 defines e-learning as

> *E-Learning is learning which is enhanced, supported, mediated or assessed by the use of electronic media. E-learning may involve the use of new or established technology and/or the creation of new learning material; it may be deployed both locally on campus for both regular and sandwich students and at a distance by students for College of Distance Education and Institute of Education.*

It went further to state that "though optical disc and television broadcasting are electronic media, in the definition the above, our preferred electronic media is the Internet via a e-learning platform such as Course Management System (CMS)/Learning Management System (LMS) using its tools or features as and when applicable to achieve a learning objective". Finally, the document identities that e-learning continuum and describes the various types of e-learning courses that can be offered in UCC:

- ***Web Supported course***: Also known as "Traditional course with technology elements", "enhancements to traditional course", "Web Facilitated course" This course is a face-to-face that the lecturer teaches all sessions in the classroom with PowerPoint but with the occasional use of technology, such as discussion forum, multimedia simulations, wiki, virtual labs, glossary, and/or online assessment. This results in web supported learning.
- ***Blended course***: Also known as hybrid course. In this course the lecturer combines elements of online learning courses and traditional courses. Online forums or Web-based activities replaces portion of classroom sessions. The result is blended learning.
- ***Online course***: All the instruction in this course takes place online without face-to-face meetings between students and lecturer, neither in the classroom nor via video-conferencing. This results in online learning. (UCC ICT Strategy plan, 2012, pp.25-28).

There has being growing use and acceptance of online learning by institutions, teaching staff and students (Poulin, & Straut, 2016; Tabs, Waits & Lewis, 2003). In fact, Poulin, & Straut (2016) stated that the number of students enrolled in at a least one distance in United States of America, where distance programmes increased 1.6 million (2002) to 4.6 million (2008) to 5.8 million (2014). Allen & Seaman (2010), also said "Over 4.6 million students were taking at least one online course during the fall 2008 term; a 17 percent increase over the number reported the previous year". The number of students enrolled for distance education (Poulin, & Straut, 2016) was the same as the number of online enrolled students (Allen & Seaman, 2010), which was 4.6 million, thus distance learning and online learning are used interchangeably in United States and most developed nations. The instructional medium, which carries content to learners can enhance or hinders the learning process. It is thus important to assess learners' perceptions on their own use of technology in learning. Such learners' views are critical in that if they consider the technology to be helpful to their learning, then they will have greater motivation to use the technology (Bernat & Gvozdenko, 2005). The ultimate aim in e-learning just like any teaching-learning process is that learning should take place and instructional objectives met. This can be verified by evaluating learners' experience among the use of summative assessment. That is why in most e-learning endeavours; the learner's experience is sought at the end of the course through exit surveys. By so doing the creators would ascertain whether or not learners were satisfied after participating in the e-learning. Information from such exercise can be used to formatively guide the planning and activities in subsequent courses. Participants' attitudes to ICT or their satisfaction with the e-learning experience are the focus of studies on e-learning that address the affective areas of participants (Neville, Lam & Gordon, 2015). The positive online experience of participants is one of the indicators of the quality of e-learning and one of the means of improving this involves addressing students' perceptions of their e-learning experience and how it can be useful for learning (Ellis, Ginns & Piggott, 2009, p.316). Participating in e-learning involves accessing digital contents (in the form of e-books, pdfs, PowerPoints, videos,

images/infographics, audios/podcasts) and engaging in online activities (using tools such email, discussion forum, webinar, wiki, online games, online brainstorming). Participants' consumption of these materials and involvement with these activities led to meeting the instructional objectives of the courses and thus understanding. How students perceive and use the activities and materials represent one of the keys to unlocking the full value of e-learning in the student learning experience at university (Ellis, Ginns & Piggott, 2009, p.316). Students experience indicates what worked and what didn't work for them in achieving the learning outcome. Such information becomes handy to designers in making the course better next time. Learners' perception and use of contents and partaking in activities (Ellis, Ginns & Piggott, 2009, p.316) as well as the ease and confidence in doing them in order to meet the instructional ends or successfully complete learning tasks (Bandura, 1989) are keys to unlocking the full value of e-learning in their learning experience. The services provided by LMS need be quantified and qualified by students, the major users of such system with the aim of identifying its strengths and the weaknesses and appropriate remedy provided. This will lead to increasing and enhancing the role played by LMS in providing satisfying and enjoyable online and blended learning experiences. Klimoski (2007) argued that (as cited in Ituma, 2011, p.4) "there is the need for studies that explore students' perceptions of e-learning systems, to enable instructors develop a better understanding of students' experience in order to enhance their satisfaction and performance".

Thus the main objective of the study is to explore the perceptions and engagement of Business students of the university of Cape Coast in their use of a typical e-learning system—Moodle learning management system. But the specific objectives are:

- To ascertain students' readiness for e-learning;
- To determine the perception of students of the different components of a typical e-learning system;
- To identify students' issues with the use of e-learning at UCC.

With the price computing devices falling, more students now owning internet-capable mobile computers and devices than ever before (Dahlstrom Brooks, Grajek, & Reeves, 2015). Students find laptops more convenient for many learning activities though they are very receptive to using mobile devices to support their learning (Kukulska-Hulme, Pettit, Bradley, Carvalho, Herrington, Kennedy & Walker, 2011). The provision of online web tools and participating in online activities (Chan, Chow & Cheung, 2004; Rafaeli and Ravid, 1997) as well as the incorporation of self- testing assessments with feedback when combine face-to-face learning appear to significantly increase student performance and understanding (Korkofingas & Macri, 2013). Moreover, increases in the overall time spent online (accessing course content, searching for additional examples, add, notes, references, etc.) has a positive effect on student performance (Korkofingas & Macri, 2013; Igor Ryabov, 2012).

METHODS AND DATA SOURCES

The research design adapted was a descriptive survey developed through literature search to solicit responses from students' experience in using e-learning platform (self-assessment or perception) in areas of ownership of computing devices to connect to the platform, proficiency and frequency of using the said devices, generic online activities they engaged in. Regarding the views on the Moodle platform, areas covered by the study include their impression, its perceived benefits and issues as well the identifiable favourite features. As per the objectives, only respondents with e-learning experience were considered thus a purposive sampling technique was employed in this study with an online Google form questionnaire used in collecting data. A pilot study of the questionnaire was carried out on thirty students. Based on the feedback received, necessary modifications were made to the wordings and relevance of some questions. The final questionnaire that was used consisted of both opened and closed-ended questions as well as four-point Likert-type scales questions.

Third year (level 300) students pursuing Bachelor Management Studies (from the Department of Management, School of Business) and Bachelor of Education –Accounting major (from Department of Business and Humanities Education, Faculty of Business and Humanities Education) for the 2015/2016 academic year were the target group for this survey. These groups have studied two semesters' courses on Management Information Systems I and II entitled BUS303 (for first semester) and BUS304 (for second semester) for the School of Business students with those from the Faculty of Business and Humanities Education as EMG302 (for first semester) and EMG303 (for second semester). These 3-credit hour courses were face-to-face with web-enhancement using the MOODLE 3.0 version. The materials used for the courses were uploaded unto the said platform including the recommended books, videos and PowerPoint presentations of weekly chapters. Participation on the platform was mandatory since it was an extension of the class. At the time of collecting data, students enrolled in the above-mentioned courses were the only students using e-learning to supplement the face-to-face course at the university.

Thus the expected population for targeted groups was 414 with 272 from the School of Business and 142 from the College of Educational Studies. Email was sent to the 414 students with a link of the questionnaire from Google form at the end of the second semester. Finally, a series of face-to-face focus group discussion was conducted on the open-ended questions.

Participation was voluntary and participants were assured of the confidentiality of their responses. In all 349 students completely filled the online questionnaire indicating a response rate of 84.3%, which was deemed adequate for the study. The

data of the survey were analyzed using the SPSS 20.0 forming the primary data source used to create the tables from this section onwards. The demographic data of participating students is shown in Table 1.

Table 1 *Demographic data of students*

Measure	Item	N	%	Cumulative %
Sex	Male	230	65.9	65.9
	Female	119	34.1	100.0
Course	BUS 303 and BUS304	228	65.3	65.3
	EMG 302 and EMG 303	121	34.7	100.0

Source: Field data, 2016.

As shown in Table 1, majority of the respondents were male, which reflects the students' population of the university were predominately males. Regarding programmes, majority of the respondents were studying business. Though UCC has more students pursuing Education than any other programmes, Management Information Systems is a mandatory course for all business students and optional for Education students except those majoring in either Accounting or Management. This is the reason why there are more respondents from School of Business than Faculty of Business and Humanities Education.

RESULTS AND DISCUSSION

Objective 1: Ascertaining students' readiness for e-learning

Table 2 *Internet skill levels and ICT ownership device of Respondents*

Measure	Item	N	%	Cumulative %
Internet skill levels	Never used the Web	0	0	0
	Beginner	0	0	0
	Novice	104	29.8	29.8
	Competent	112	32.1	61.9
	Proficient	133	38.1	100.0
Computing device ownership	Yes	311	89.0	89.0
	No	38	11.0	100.0

Source: Field data, 2016.

Table 2 indicates that more than three-quarter of the respondents own computing device to aid them to connect to the Internet. With the falling price of computers and smart phones as well bandwidth more students have access to the Internet (Murphy, Farley, Lane, Hafeez-Baig & Carter 2014). Since e-learning is learning with ICT, ownership of computing devices that is capable of connecting to the e-learning platform either via the Internet or Intranet is key and a necessary requirement for a successful and enjoyable online experience. Ownership of computing devices enhance learners' owning their own learning. As computer ownership grows across the globe due to fall in price, e-learning is becoming increasingly viable and accessible (Epignosis, 2014, Becta, 2005). Also computer access is regards as a factor of computer technology acceptance (Henderson, 2005). Again, for students to benefit from an ICT-driven course using e-learning, they should be ICT proficient or skilled, which is also necessary for e-learning success. ICT skill is positively related to the effectiveness and efficiency of users' performance on the e-learning platform (Pretorius & Van Biljon, 2010, p.41; Van Biljon & Pretorius, 2009, p.253; Law, Atkins, Kirkpatrick & Lomax, 2004). Van Biljon & Pretorius (2009, p.250) grouped Internet experience level into: never used the web; beginner (have read pages on the web); novice (have entered addresses and used bookmarks); competent (can use a search engine to find information); proficient (know way around and have done Web transactions like e-banking).

In this respect, students were asked to indicate their Internet skills level. All of the respondents were knowledgeable in using the web since none of them indicated that they lacked Internet skills.

Table 3 shows that the operating systems (OS) of choice are Windows 7-10 and Android, which have fewer numbers of students that spend 0% of their time using devices powered by the said operating systems. This confirms the undisputed fact that both Windows (Honye & Thinyane, 2012; Nasaka, Takami, Yamamoto, & Nishigaki, 2011) and Android (Lixăndroiu & Maican, 2014; Reza & Mazumder, 2012) are the world's most used operating system for desktop/laptop and mobile devices respectively. With regards to the afore-mentioned operating systems (Windows 7-10 and Android mobile), 59.9% respondents spend at least 61-80% of their day using the Windows driven devices while 75.1% of the respondents spend at least 61-80% of their day using the Android powered devices. The implication is that these students are actively using computing devices. Thus it would not be much difficult to participate in online class activities though heavy online users may not necessary succeed in

online courses since the courses may not be technology thus understanding of the subject matter is still the key. The advantage of heavy online users is that they are not technophobia, which can negatively affect students' participation on online learning. Time spent online is considered as a performance metric for student's online participation (Ng, Zakaria, Lai & Confessore, 2016, p. 433; Damianov, Kupczynski, Calafiore, Damianova, Soydemir & Gonzalez, 2009) that is capable of yielding higher grades (Calafiore & Damianov, 2011; Kirkorian, Wartella, & Anderson, 2008; Carvin, 2006).

Table 3 *Percentage of time per day spent using various Computing devices*

% of time	Windows 7-10		Mac OS		Linux/ Ubuntu		iOS Mobile		Android		Windows Mobile	
	N	%	N	%	N	%	N	%	N	%	N	%
0	13	3.8	**231**	**66.2**	**266**	**76.2**	**208**	**59.6**	19	5.5	**155**	**44.4**
1-20	42	12.0	57	16.3	34	9.7	37	10.6	28	8.0	62	17.8
21-40	45	12.9	21	6.0	20	5.7	37	10.6	15	4.3	21	6.0
41-60	40	11.5	15	4.3	15	4.3	27	7.7	25	7.2	29	8.3
61-80	110	**31.5**	18	5.2	13	3.7	18	5.2	55	**15.8**	47	13.5
81-100	99	**28.4**	7	2.0	1	0.3	22	6.3	207	**59.3**	35	10.0
Total	349	100.0	349	100.0	349	100.0	349	100.0	349	100.0	349	100.0

Source: Field data, 2016.

Table 4 show what students use their electronic devices for. It can be seen that most of the respondents use the smaller devices (smart phone/tablet) for non-academic activities (personal life and social networking) whiles they use larger devices (netbook, laptops, & desktop) for academic activities (research and study).

Table 4 *The use of technology*

Activity	Smart phone (iPhone/Android/ Windows Mobile)		Tablet device (iPad; Galaxy Tablet etc.)		Netbook		Laptop machine		Desktop machine	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Personal life	146	41.8	117	33.6	102	29.2	46	13.1	107	30.7
Research	43	**12.3**	53	**15.2**	73	**20.9**	82	**23.5**	44	**12.6**
Social Networking	85	24.4	68	19.5	32	9.2	7	2.0	10	2.9
Study	75	**21.5**	111	**31.8**	142	**40.6**	214	**61.4**	188	**53.9**
Total	349	100	349	100	349	100	349	100	349	100

Source: Field data, 2016.

This is evident when for academic activities of research and study; 33.8% uses smart phones, 47.0% uses tablets, 61.5% uses netbooks, 84.9% uses laptops, and 65.5% uses desktops. The converse is evident for non-academic activities of personal life and social networking; 66.2% uses smart phones, 53.1% uses tablets, 38.4% uses netbooks, 15.1% uses laptops and 33.6% uses desktops. Therefore, fewer students use mobile devices for academic purposes. This because the design of most LMSs and websites have not to be optimize for mobile devices thus making navigating and scrolling very difficult or not user-friendly. Also some Lecturers suspect that anytime students use mobile devices especially smartphones in class, they are being used for non-academic purposes (SMS, WhatsApp) thus disallowing their used in the class.

Objective 2: Determining students' perception of the different components of the Moodle system

The main tool for any e-learning course is the learning management system (LMS) also known as course management system (CMS) or virtual learning environment (VLE) among others. Klobas and McGill (2010) defined LMS as information systems that facilitate online learning by supporting teaching and learning as well as performing administrative tasks and facilitating communication between instructors and students. Any institution wanting to take online learning serious can't do without a e-learning platform of a sort for the online activities. Students were asked on their impression about the Moodle platform, the LMS used to support the delivery of the course and their responses are shown in Table 5. Students acknowledged the positive possibilities that the platform affords, which are listed in Table 5.

Table 5 *Students' impression of Moodle*

Item	Strongly Agree	Agree	Disagree	Strongly Disagree	Total	Composite Mean
a) Moodle is easy to use.	83 (23.8%)	185 (53%)	55 (15.8%)	26 (7.4%)	349 (100%)	2.1
b) Using Moodle for this course can improved my learning.	231 (66.2%)	76 (21.8%)	14 (4.0%)	28 (8.0%)	349 (100%)	1.5
c) I have a positive overall experience using this platform.	125 (35.8%)	179 (51.3%)	29 (8.3%)	16 (4.6%)	349 (100%)	1.8
d) I would like to take courses with this platform.	179 (51.3%)	120 (34.4%)	31 (8.9%)	19 (5.4%)	349 (100%)	1.7
e) Class content is accessible anytime, anywhere and anyhow.	207 (59.3%)	142 (40.7%)	0 (0.0%)	0 (0.0%)	349 (100%)	1.4
f) Accessing online reading materials for campus-based courses is not useful to me.	24 (6.9%)	32 (9.2%)	198 (56.7%)	95 (27.2%)	349 (100%)	3.0
g) Downloading contents wasn't easy so I have copy them from colleagues.	56 (16.0%)	76 (21.8%)	107 (30.7%)	110 (31.5%)	349 (100%)	2.8
h) You have to be 'IT expert' to use the Moodle platform.	80 (22.9%)	69 (19.8%)	134 (38.4%)	66 (18.9%)	349 (100%)	2.5
i) Learning online was stressful and difficult.	102 (29.2)	62 (17.8%)	70 (20.1%)	115 (33.0)	349 (100%)	2.6
j) It encourages students to miss the face-to-face sessions.	135 (38.7)	35 (10.0%)	78 (22.3%)	101 (28.9)	349 (100%)	2.4
Composite Mean	122	98	72	57		2.2

Means were computed on a scale that range from 1 = Strongly Agree, 2 = Agree, 3 = Disagree, 4 = Strongly Disagree
Source: Field data, 2016.

From Table 5, it can be observed that students have positive impression about their use of Moodle learning platform. This is evident by majority of the respondents— 268(76.8%), 307(88.0%), 304(87.1%), 299(85.7%) and 349(100%) — agreeing to items with positive statements (a) to (e) respectively. On the other hand, fewer of the respondents — 56(16.1%), 132(37.8%), 149(42.7%), 164(47%), and 170(48.7%) —were agreeing to items with negative statements (f) to (j). These concur with general observation that most students have positive view of LMS (Palmer & Holt, 2014; Ituma, 2011; Waycott, Bennett, Kennedy, Dalgarno & Gray, 2010) with female students having a more positive attitude to e-learning than their male counterparts (Keller and Cernerud, 2002; Selwyn, 2008). A composite mean indicates that 220 (63%) of the respondents at least agrees (composite mean of 2.2) to the ten (10) Likert statements in the said table. Such positive impression has the potential of soliciting the cooperation of students with regards to their use of the e-learning platform, which influence their future in-take of courses that use such platforms.

Table 6 *Students identified benefits of using Moodle in UCC*

Items	Frequency	%
(a) Taking quizzes anywhere and having instant result	340	97.4
(b) Facilitate communications between lecturers and students.	264	75.6
(c) Aid sharing information.	110	31.5
(d) Assist collaboration among colleagues.	86	24.6
(e) Supporting lifelong learning.	36	10.3
(f) Support different learning styles and life styles,	29	8.3

Source: Field data, 2016.

Moodle like any educational technology has the capabilities to be used for activities that augment or go beyond face-to-face instructional delivery. Students were asked to indicate at least one benefit of using the Moodle platform. This item was the

first of open-ended question asked. The vast majority of students (97.4%) indicate their ability to write quizzes anywhere, anytime and anyhow as the one identified benefit. This concurred with Hirschel (2012) who indicated that Moodle quiz was popular and students' response to it was overwhelming positive. This was followed by an overwhelming majority of students (75.6%) choosing their capability of communicating with lecturers was identified as the second most beneficial followed in distanced third by the sharing of information (31.5%). Student–instructor communication/interaction is one of the greatest predictors of student satisfaction in online learning that has positive effect on them (Croxton (2014, p.318; Young & Norgard, 2006). Though it is mandatory for lecturers at UCC to indicate when they are free for students to contact them, it is usually difficult for a large class but with technology such as e-learning is possible that is explains the highly ranked choice of Student–instructor communication.

Table 7 *Which features of Moodle were most useful to students?*

Items	Frequency	%
(a) Taking exams and quizzes online	335	96.0
(b) Keeping track of marks on assignments and quizzes	330	94.6
(c) Communicating using online discussion board	319	91.4
(d) Accessing digital readings materials	302	86.5
(e) Email communicating with Lecturers	268	76.8
(f) Listening to or viewing video materials	235	67.3
(g) Accessing an online syllabus	213	61.0
(h) Communicating with colleagues using email	110	31.5
(i) Editing document with wiki	67	19.2

Source: Field data, 2016.

E-Learning is concerned with the learning activities, resource access, communication, and assessment undertaken in an online environment (Neville, Lam, & Gordon, 2015, p.75). It is commonly argued that web-facilitated tools (e.g., online testing, discussion boards, emails, webinar and virtual chat) encourage students to actively participate in online learning activities that are expected to improve academic performance (Hardaker & Smith 2000; Karayan & Crowe 1997). Students were asked to express their views on the various online activities they were engaged in that indicates their assessment of the said features of Moodle learning management system. Table 7 shows their responses on the said matter. The response indicates that most of the students considered the listed feature as most useful except two "emailing among students" and "editing wiki document".

Prior to their enrollment to the said courses, students write paper-based quizzes and exams and some either get their marked result later in the semester or never get it. That is why the vast majority of students (96%) highly ranked "writing quizzes and exams online". The quizzes were done anywhere on a specified date and time without supervision whiles the examinations were supervised at the ICT Centre. Online quizzes and exams enabled students to have their results instantly thus being able to monitor their progress for the course (94.6%), which was difficult for most face-to-face large classes. Students' contributions to some discussion forums were marked hence another highly ranked activity (91.4%). Discussion forums were used as extension of the face-to-face class sessions –discussing lesson taught and providing answers to students' queries. Among the three types of interaction—student-content, students-instructors, and student-student—it was the latter that is least used. This is an indication of that meaningful learning may be taking place in accordance with Interaction Equivalency Theorem by Anderson (2003), which stated that "deep and meaningful formal learning is supported as long as one of the said forms of interaction is at a high level". For face-to-face courses like ours, verbal conversation and using messaging systems (such as "whatsapping" and "texting") among students are the preferred means of communication than emailing. Wiki tool enable students to edit the same document online synchronously or asynchronously. It demands advanced editing skills, which not every student possess. The activity to edit a wiki was redone several times due the table being meshed up on several occasions. The most preferred feature is the capability to have access to marks of activities done on the platform, which 94% of students selected. This will enable them to monitor their performance, which is a good thing.

Objective 3: Identifying students' issues with the e-learning at UCC?

Students were asked to identify the challenges they encountered while using the platform. This item was the second of open-ended question asked. All the issues raised should be taken seriously since it can affect students' acceptance of e-learning to blend with face-to-face. Table 8 shows themes gathered from students' responses.

Table 8 *Students identified issues of using Moodle in UCC*

Items	Frequency	%
(a) Frequent system failures	330	94.6
(b) Lack of student support services	319	91.4
(c) Spending too much time online activities.	310	88.8
(d) Too many tools and links.	302	86.5
(e) Lack of continual use of the LMS in UCC	234	67.0

Source: Field data, 2016.

Many systems come together to make up a complete e-learning system any of these systems can be a point of failure, which may account for this issue being the number one identified. System failure can be as a result of lack of Internet connectivity, faulty networking device (such as Server-Moodle or Web or switch or router) or exhaustion of bundled data for mobile users, who are not connecting from the university's intranet via Wi-Fi. Though the situation as improved, Annor-Frempong, & Edumadze (2009) pointed out that inadequate infrastructure at University of Cape Coast poses challenges to many students who want to use the Internet for academic purposes.

Lack student support was considered to be the second ranked issue. This could come from lack of students training on the use of the platform or lack of staff to fix students' problem. Students expect technical support from either tutors or the organization (Young & Norgard, 2006).

The issues of "spending too much time online activities" and "too many tools and links" may lead to overloading students, which is one of the complaints of students on e-learning (Kushnir, 2009, Hiltz & Wellman, 1997). Things that might contribute to the issue of "spending too much time online" might be slowness of Internet connectivity, slowness in typing and loading students with a lot of online activities among others. Others support this issue at hand such as Sharma, Ekundayo and Ng (2009) who alluded that "e-learning places high demand on learners who have to be more proactive and disciplined than in traditional face-to-face education". Apart from the recommended books and its accompanied PowerPoints, most of the materials for the said courses were open education resources (OERs) and YouTube videos thus the many links.

The lack of continuity in the use of e-learning to supplement the courses at the University of Cape Coast is something that should be relooked since it is optional. Thus most lecturers do not use it. With the ever-increasing use of e-learning and m-learning to radically transform learning and teaching in universities all over the world (Calafiore & Damianov 2011; Romiszowski 1997; Eastmond & Ziegahn 1995), the university of Cape Coast cannot sit on the fence. The university's own e-learning policy states that by 2018, about 50 per cent all courses should be enhanced with the Moodle platform but at the time of writing, over 99.99 per cent do not use the system.

FINDINGS

Objective 1: To determine students' readiness for e-learning.
All of the students considered themselves to be at least novice with their Internet skill with overwhelming majority of them (89%) owning their computing devices(s) such as desktops, laptops, netbooks, tablets and smart phones. For each day, majority of the students spend at over half of their time using devices driven by windows and Android. Majority of the students use devices with large screen size (netbook, laptop and desktop) for academic activities of study and research while they used mobile devices—smart phone and tablet— when performing non-academic activities (personal life and Social networking). This implies that students surveyed are prepared and ready for e-learning.

Objective 2: To determine the perception of students in using different components of Moodle e-learning system.
Large majority of the students 220(63%) have positive impression on their use of Moodle to supplement the campus course. Again overwhelming majority of them consider the ability to taking quizzes anywhere and having instant result i.e. 340 (97.4%) and facilitating communications between lecturers and them i.e. 264(75.6%) as the most useful aspect of using the platform. Finally, apart from email communication with colleagues i.e. 110 (31.5%) and wiki editing document i.e. 67(19.2%), majority of the students liked all the features of Moodle used for the course such as taking online quiz and knowing the mark obtained, participating in discussion forums, assessing digital course materials and email communication with the lecturers of the course. Students actively participate and highly ranked activities that yield rewards in the form of marks/grades.

Objective 3: To identify students' issues with the e-learning at UCC?
The issues identified by the students are very critical that can unmake the e-learning at the University of Cape Coast or any other university when they are ignore and not taken serious. These issues could be grouped into the following:

- Technical (Frequent system failures)
- Pedagogical ("Spending too much time online activities", and " Too many tools and links")
- Administrative ("Lack of student support services" and " Lack of continual use of the LMS in UCC"

CONCLUSION

With respect of the first objective, majority of the students own of computing devices spending at 61-80% of each day on digital device and use these devices for academic purposes of studying and researching. Thus they are ready for e-learning. Moreover, with majority of students using mobile devices for non-academic activities of personal life and social networking, there is room for mobile learning (m-learning) which is an aspect of e learning. In other words, this is an indication that mobile learning should be popularized in the university. This is because m-learning is considered to be the future of learning (Alzaza, & Yaakub, 2011, p. 6; UNESCO.2013, p.13) especially in Africa is one of the continents with highest mobile phone penetration. As mobile devices become more personal, so should it learning application be utilized. The good news is that the established e-learning systems have developed m-learning alternative so avenue has been provided for m-learning thus the university use this opportunity for her technology enhanced learning. Also in other not to create a digital divide between students have means of accessing the e-learning platform and thus participate in the online activities and those who don't have, access problem has to be solved. This will ensure level playing field for all students i.e. the issues equality in the access of the e-learning platform and tools is address. This can be done through hire purchasing scheme for digital devices facilitated by the university or university establishing computer laboratories that would operational 24×7×365 when students are on campus. Again the university should increase her wireless signal to not only the offices, campus residential facilities of staff and students but also to students' hostels outside the campus. This will create a much better learning environment due to the non-existence of such facilities once lectures are over and the lecture halls are being used for scheduled lectures.

On the third objective, learning management system (LMS) is a key factor to ICT-mediated teaching/learning that the university is desirous in pursuing. Between the student and the LMS, there are many points of failures, which can negatively impact students' experiences. Thus all identified issues raised must be look unto and solution provided that would eliminate it or drastically reduce its impact of students' acceptance of the LMS. Furthermore, the university should take a serious look at it ICT infrastructure and upgrade it to the point where downtime would be negligible. Robust and redundant infrastructure is a pre-requisite stable e-learning system. An e-learning Centre should be established to help with the training of both staff and students in using the platform as well as fix problems pertaining to the Moodle platform. Once this is done, it would make both instructors' online teaching and students' online learning easier and enjoyable. Finally, care must be taken not to overload students with a lot of activities remembering the credit hour of the course as well as workload from other courses when designing online activities. The class sessions should therefore alternate between face-to-face and online sessions say 2 hours of face-to-face and 1 hour of online activities or reverse depending on the lesson objectives. Overloading students has the propensity to negatively affect their acceptance of e-learning. Since technology cost money and its uses cost time and effort, everything should be done to make e-learning impact positively on the teaching/learning process thereby encouraging its use. Finally the university's e-learning policy must be enforced with lecturers being motivated as well as mandated to use either the Moodle system or any other system such as the Google's Classroom, which is part of the G-suite that has been activated for all staff and students of the university. Students will definitely come the LMS and use it if Lecturers place content on them thus the former is the key to the continuous use of e-learning at the University of Cape Coast.

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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.

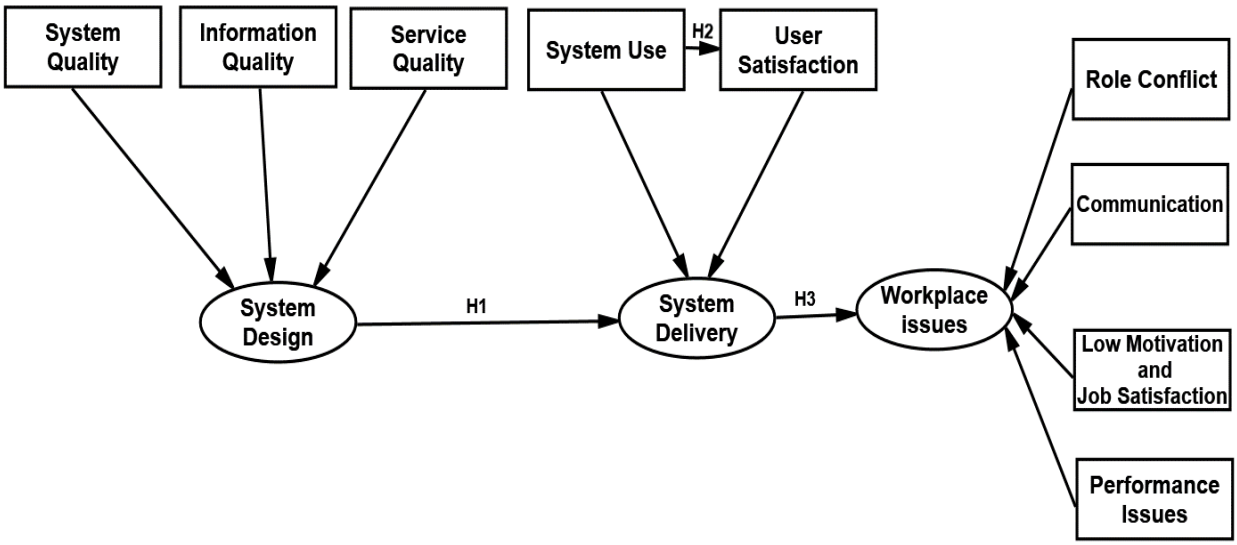

Figure 1. Conceptual model

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.

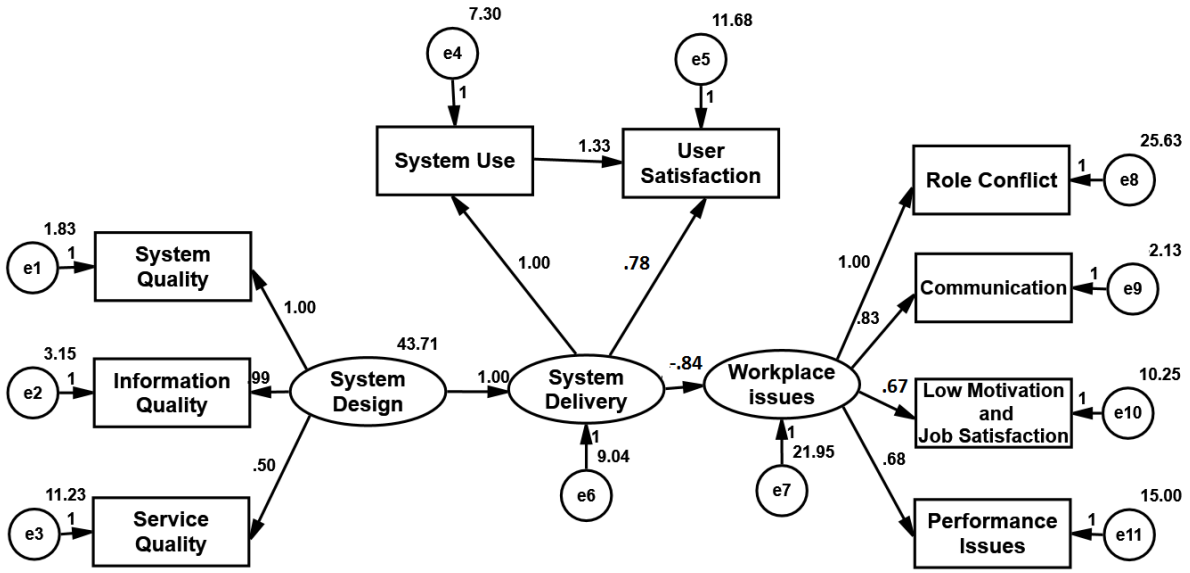

Figure 2. SEM Model with unstandardized regression coefficients

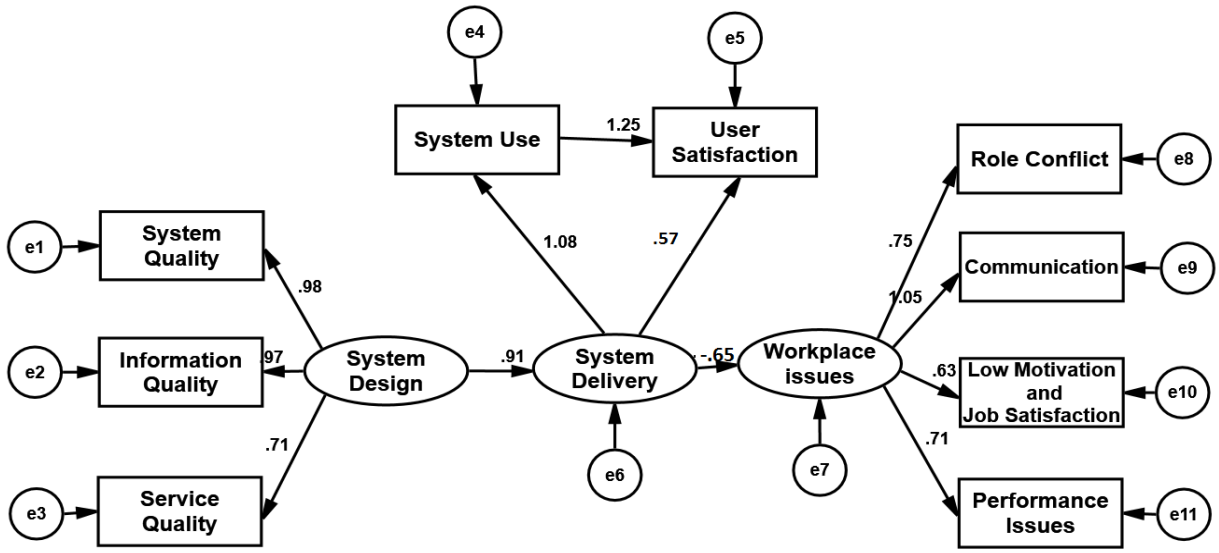

Figure 3. SEM Model with standardized regression coefficients

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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IMPACT OF ONLINE LEARNING ON TEENAGERS BUYING BEHAVIOUR

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ABSTRACT
In information age, the youths are having access to various kinds of information, which enables them to take informed decisions and leads to selection of best products and services. The prime aim of this research paper to explore the impact of online learning on teenagers' buying behaviour during online shopping. This research followed exploratory research design. The primary data of the research was collected from 250 teenagers from various part of the Chennai city using Google forms through social media sites. The data collected through the google form was analyzed using frequency analysis and Structural equation modeling approach with the help of IBM SPSS 22.0 and IBM AMOS 22.0 software. The findings of the study revealed that the online learning has significant positive impact on teenagers' buying behaviour during online shopping.
Keywords: online learning, teenagers' buying behaviour, formal learning, informal learning, non-formal learning.

INTRODUCTION

We live in digital era. Everything around us transformed through technological interventions in recent decades. The people belong to the different age categories are either willingly or unwillingly forced to adopt the new technology to some extent to greater extent in order to cope with the technology transformation race. The technology has its impact on whole sphere of the society such as education, medication, life style, communication, entertainment, food, shopping, business etc. In recent decades, the generation, dissemination and access to information becomes easier than ever around the globe because of development in Communication and information technology. The earlier researches show that the age group of the people has critical role in learning and adoption of technology. The market researchers generally categorize the consumers as generation x, y, and z, based on their shopping behavior. The generation z consumers are the ones who born between 1995 and 2012 and are more adoptive to the technology than other generations. The generation z consumers learn many things related to their education and life through internet sources such as web portals, social media sites, etc. In general, it is observed that the teenagers used to spend the significant portion of their life time on internet through playing games, browsing on social media sites (i.e. Facebook, twitter, Instagram, LinkedIn, Youtube, etc.), searching information, online shopping with the aid of smart mobile phones, tablets, laptops, or computer. Previous researches also proved that the generation Z consumers are having more knowledge on latest products and its features while compared to the earlier generations. There are very few studies which attempted to examine the buying behavior of teenagers. The prime aim of this study is to focus on the impact of online learning on teenagers' consumer behavior at Chennai city.

THEORITICAL FRAMEWORK OF THE STUDY

Learning

The term 'Learning' can be defined "as the method of procuring new, or adjusting current, knowledge, behaviors, skills, values, or preferences". The learning is not only specific to human beings, even the animals, plants, and now-a-days machines are also programmed to learn through their past experience. The learning of human beings starts from their birth and continue till their death. The learning has three major segments such as formal, non-formal, and informal learning.

Types of learning

The term **'formal learning' or 'formal education'** refers to "Structured, channeled by a formal curriculum, which tips to a formally acknowledged credential such as a high school completion diploma or a degree, and is often directed and acknowledged by government authority level where professional trained teachers take care of teaching.

The term **'Non-formal learning'** refers to "Organized (or roughly organized), where it may or may have a formal channel of curriculum". Here the teaching is done by a competent or qualified teacher or even by a more experience leader. This type of non-formal learning outcome does not focus in any diploma or degree, but the individual skill and talent are highly improved.

The term **'Informal learning'** refers to "that there is no prescribed curriculum and no credits gained. Teacher plays a role of parent or friend who has more experience and also acts as a grandparent. It contains 'social learning' also. The term 'social learning' refers to learning of individual from the people in the society in an informal manner by observation, interaction, and having relationship.

Online Learning

It denotes to learning through the assistance of the computer and Internet technology, where it is also termed as e-learning or electronic learning. It is a learning system which is based on structured teaching but with the help of electronic resources. Teaching and learning can be inside or outside the classrooms, but the major components of online learning are internet and computer. It also facilitates transfer of skills and knowledge, and the delivery of education through the electronic networks to a large number of learners at the same or different times. Online learning supplements even sometimes complement traditional learning. Rapid development in technology and the advancement in learning systems have the reach to the masses.

Generally online learning can be of any of the above-mentioned types of learning. There are formal online courses floated in internet with structured curriculum which is guided by a tutor, For example online courses offered by MOOC, MOODLE, etc, whereas there are some lecture notes, or videos related to particular field or domain or subject topic is posted on the web portals are part of 'non-formal learning' which enriches the individuals' knowledge on the specific subject domain. On the other hand, 'Informal learning' occurs through navigation through web portals, information exchange in social media sites, etc.
The introduction of computers was the basis of this revolution and with the passage of time, as we get hooked to smartphones, tablets, etc, these devices now have an importance place in the classrooms for learning. Books are gradually getting replaced by electronic educational materials like optical discs or pen drives. Knowledge can also be shared via the Internet, which is accessible 24/7, anywhere, anytime.

Generally, online courses are divided in to modules and chapters. Each module regularly starts with text of readings, PowerPoint, and lectures which deliver the information that is required to complete the tasks. Debates, scenarios, simulations, projects, and papers are the various learning activities that are prescribed in every module. The significant advantage of online learning as it can span time and distance. Moreover the teacher can access the information from any place so the student needs not to stick in the place of the teacher. If you are undergoing a course of traditional methods with the use of Canvas a teacher can access all the course related information anywhere anytime with constant interface along teacher and classmates.

Consumer Buying Behaviour

The term 'consumer' can be defined as who is the end-user of the product or service. Consumers' buying behaviour is influenced by four major factors such as Cultural, Social, Personal, and Psychological. Consumer Behaviour: It is broadly the study of individuals, or organizations and the processes consumers use to search, select, use and dispose of products, services, experience, or ideas to fulfill requirements and its influence on the shopper and people.
It includes the research on individuals and the technique they adopt to select, consume, and set out services or products to fulfill their wants and the effect that these method have on the consumer and the society as a whole. Consumer behavior refers to all the thought, feelings and actions that an individual has or takes before or while buying any product, service or idea. Buyer behavior is the concept which answers what, why, how, when, and where an individual makes purchase. As a result, the outcome of buyer behavior is the buyer's decision.

Cultural Factors

Culture is established out of values, ideas, attitudes and other meaningful symbols that permit any individual to communicate, interpret and estimate as a member of society (Blackwell et al, 2001). It is the key purpose behind a person's needs, requirements and behaviour. Though, various social groups have their own culture that

regularly affects buying behavior of the consumers, but the extent to which this feature impacts the behaviour differs from country and region. Therefore every cultural group can be separated into small groups comprising of individuals with common life experiences and related circumstances, which is called as subcultures (Kotler et al., 2005), such as nationality, racial groups, religion, and geographic regions.

The cultural factor is social class, it comprises the constructs like education, occupation, income, and wealth (Blackwell et al., 2001).

Each culture has smaller groups who part in the same values and beliefs due to common life experience and circumstances. These groups play a key role for marketers since many of these subcultures make up a significant division of the market. (Kotler, 2001). There is some detailed form of social class and structure in each society. This class system is different with regards to each nation in point of distribution and ratio. In every society individual income divides society into three categories such as rich, poor and middle where each sub-class has its own values, interests and behaviour.

Social Factors

The next significant factor affecting customer behaviour is social groups, which are formed up of small groups, social roles and same social status. Few of these groups have a direct impact on an individual buyer, i.e. membership of an individual in specific groups, groups that an individual is attached to (Kotler, 2005) , and reference groups is one which assist as direct or indirect points of comparison in forming a person's attitudes or beliefs (Armstrong and Kotler, 2005).

Personal Factors

Kotler (2001), numerous personal characteristics such as consumer's age, occupation, financial situation, lifestyle, personality and self-concept also impacts a lot on the buyer's decision. Fluctuating in individual's demand for goods largely depends on the employment and financial condition, as well as the specific period in the life. Armstrong and Kotler (2005), a person's lifestyle affects his or her activities, interests, and thoughts and also the choice of products. Furthermore, all people are individuals; henceforth have a single personality of dissimilar characteristics, which is often portrayed with traits, such as sociability, self-confidence, autonomy, defensiveness, adaptability, dominance and aggressiveness etc. (Blackwell, 2001).

Products and services that customers purchase often change their lifecycle, while product such as food, clothes and furniture are age associated and consumer's choice differs over the sphere of time. Every individual, who survives in a specific society and works in a specific class, henceforth, desires the product as per his atmospheres. Moreover the economic condition of an individual has a significant influence on his buying behaviour. Result discussion covers particular factors and it is noteworthy to debate about personal values, as each and every consumer holds life goals and they purchase products to attain value allied to their objectives. Values are believed that define preference and recommend a special among suitable and unsuitable behaviour has established a list of values (LOV) which contains of total nine internal and external values typically influenced by consumers (Gutman et al., 1982).

Psychological factors

This factor contains of four major aspects such as perception, specifically motivation, attitudes, learning and beliefs. When an individual is encouraged, he or she performances accordingly and the actions taken over are affected by the individual's insight of the specific state. Perception is a person's skill of selection, analysis of the data and organization which flows through the individual's senses, and therefore a significant picture of the world is designed. The experience of novel things carries changes to a individual's behaviour. As an outcome, novel opinions and attitudes are developed and henceforth affect the normal behavior of the buyer (Armstrong and kotler, 2005).

Literature Review related to the study

Ra'ed et al. (2016), explored the factors that influence students' usage behaviour of e-learning systems. Based on the strong theoretical foundation of the Unified Theory of Acceptance and Use of Technology (UTAUT) and using structural equation modeling (SEM) via AMOS 21.0, this research paper examines the impact of performance expectancy, effort expectancy, hedonic motivation, habit, social influence, and trust on student's behavioural intention, which is later examined along with facilitating conditions on student's usage behaviour of e-learning systems. Data was collected from students at two universities in Beirut (capital of Lebanon) using a cross-sectional questionnaire survey between January and March 2015. The results revealed direct positive effect of performance expectancy, hedonic motivation, habit, and trust on student's behavioural intention to use

e-learning explaining around 71% of overall behavioural intention. Meanwhile, behavioural intention and facilitating conditions accounted for 40% with strong positive effects on student's usage behaviour of e-learning systems. However, both effort expectancy and social influence did not impact student's behavioural intention.

Shannon Cummins et al. (2014), in their article studied about the behavior of consumer and theory of social network literature connected to the online and e-commerce background. The researcher has addressed issues with regards to online or social media background where the sample was taken form 942 pervious available articles from the year 1993 to 2012. In this study the researcher has used incubation, expansion and explosion methods for the investigation of the sample and the primary topic. Summary of the literature has been grouped and further research prospects have been presented in the study area of consumer behavior and social network scholars concerned can explore the online context.

Arjun Mittal (2013), in their study described the shopping done through internet in India with regards to explain the growth of shopping done through internet and its influence on behavior of consumer. The paper build on the relevant literature and at the same time examines consumer behavior by questionnaires. Furthermore, the future development of internet shopping will be measured and deep comparison of consumer behavior between different countries. This paper support the research questions that including recent trends and various issues in internet shopping, and principle factors for consumer behavior. Also, the result of the study shows that internet consumer trust and perceived risk have strong impacts on their purchasing decisions. Consumer`s trust, privacy concerns, security concerns are the major factors for using internet for shopping, the trust on websites influence to the purchasing decision of any consumer. More specifically, the empirical result suggests how the E-commerce companies make marketing strategies according the research data and analyzing result.

Liljana and Elena (2012), in their article presented a descriptive and empirical elaboration of the significance of cognitive learning as an instigator for consumer behaviour. Beginning from the preceding scientific information associated to cognitive learning as a multifaceted mental procedure of making opinions, attitudes, making result for reacting either positively or negatively, etc, the key objective of this research is to verify its influence on consumer behaviour. The customers who stay in Ohrid are the sampled tourist respondent for the present field of research in tourism business. The data attained point out to the requirement for restructuring of advertising messages for causes that are governing the features for creation of decision whether and where to travel lies in the customer's personality, in its structure to store data and experience. The applied psychology discovers scientifically originated procedures and techniques on how to additional dependably to encourage and influence consumers to use services and products through cognitive learning. This article delivers a modest contribution with regards to solving the hindrances for attracting consumers in the tourism business, but to accomplish greater credibility of dealers as well.

Efthymios (2004), in their paper analyzed the factors affecting the online consumer's behaviour and examines how e-marketers can influence the outcome of the virtual interaction and buying process by focusing their marketing efforts on elements shaping the customer's virtual experience, the Web experience. Identifying the Web experience components and understanding their role as inputs in the online customer's decision-making process are the first step in developing and delivering an attractive online presence likely to have the maximum impact on Internet users. Click-and-mortar firms delivering superior Web experience influence their physical clients' perceptions and attitudes, driving additional traffic to traditional sales outlets. Provides a contribution to the theoretical debate around the factors influencing the online consumer's behavior and outlines some noticeable similarities and differences between the traditional and virtual consumers.

RESEARCH METHODS

Research Design

The present research followed exploratory research design. The research attempted to explore the impact of online learning on teenagers' consumer buying behavior on their purchase through online shopping.

Primary Data

The primary data relevant to the research was gathered from 250 teenagers (i.e. from the age of thirteen and nineteen) from various parts of Chennai city. The survey method of data collection was adopted to collect the data through structured questionnaire which was created in Google forms and posted in various social media websites such as Facebook, Twitter, LinkedIn, Instagram, etc.

Structure of Google forms

The google form (i.e. data collection instrument) has been divided in to four sections namely, demographic profile, browsing details, online learning, and Consumer buying behaviour. The demographic profile section has five items namely their name (optional), age, gender, and class they are studying. The second section of the google form deals with their availability on the internet which includes eleven items such as frequency of browsing, number of hours of browsing in a week, device used to access internet, presence in social media, use of internet for learning, membership in any e-learning portal, details about e-learning course taken, preferred online shopping portal, reason for the preference of the online shopping portal, frequency of purchase, and type of products preferred to purchase. The third section deals with their perception towards online learning (15 items), which is further divided in to three sub-sections namely formal learning (5 items), non-formal learning (5 items), and informal learning (5 items). The fourth section deals with the teenagers' buying behaviour (20 items) which has four sub-sections such as cultural factors (5 items), social factors (5 items), personal factors (5 items), and psychological factors (5 items).

Data analysis tools

The primary data are collected through the google form are transformed in to IBM SPSS 22.0 software. The statistical tools used for analysis are frequency analysis and structural equation modeling approach. The structural equation modeling approach was applied through the use of IBM AMOS 22.0 software. The frequency analysis was used to describe the demographic profile of the sample, whereas the structural equation modeling was used to examine the impact of online learning on teenagers' buying behaviour during online shopping.

Development of conceptual model

Based on the extensive literature survey conducted and reported in the present research, the following conceptual model was developed which has one independent variable (i.e. online learning) and one dependent variable (i.e. teenagers' consumer buying behaviour).

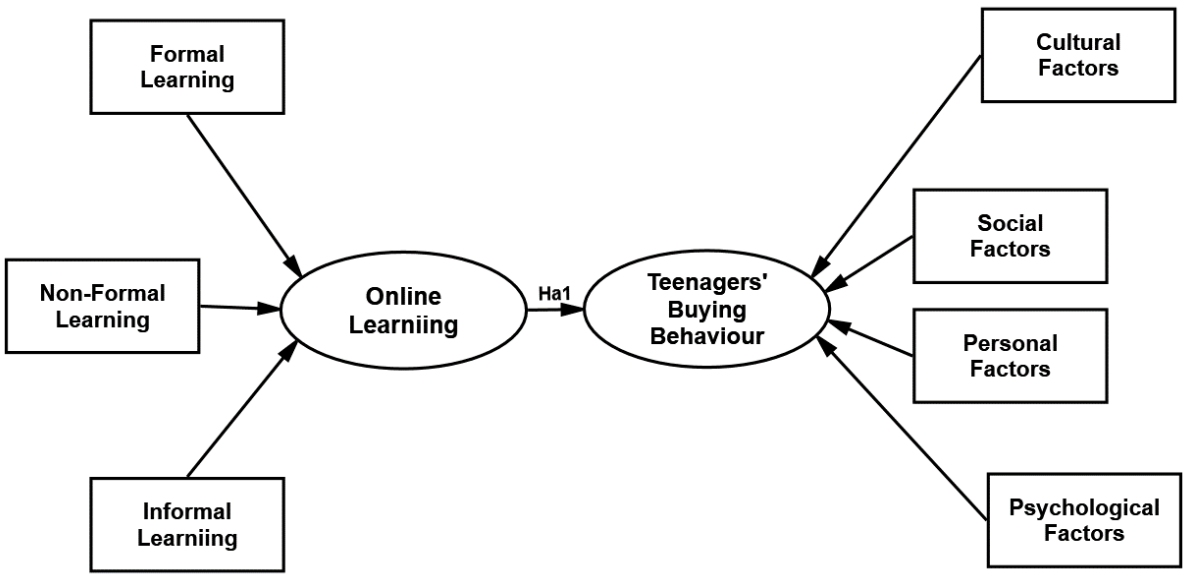

Figure 1. Conceptual Model

Based on the conceptual model shown in figure 1 the following hypothesis can be formulated:
Ha1: The online learning has the positive impact on the teenagers' buying behaviour during online shopping.

RESULTS & DISCUSSION

In this section of the research paper summarizes the results of the analysis and describes the inferences based on the results.

Demographic Profile of samples

The demographic profile of the sampled teenagers is described in table 1.

- From the table 1, it is identified that the around one-third (33.60%) of the sampled teenagers are belongs to the age category of 16-17 years, slightly less than one-fourth (23.20%) of them comes under

the age group of 13-15 years, and significant portion (43.20%) of them are comes under the age category of 18-19 years.

Table 1. Profile of Sampled Teenagers

S. No	Demographic variable	Frequency	Percent
1	**Age Category (in Years)**		
	13 - 15	58	23.20%
	16 - 17	84	33.60%
	18 - 19	108	43.20%
2	**Gender**		
	Boys	156	62.40%
	Girls	94	37.60%
3	**Education**		
	Up to 10th Std.	56	22.40%
	11th / 12th Std.	85	34.00%
	Studying in UG	109	43.60%
	Total	**250**	100.00%

(Source: Primary Data)

- It is interesting fact that, majority of the sampled teenagers (62.40%) is boys and rest (37.60%) of them is girls.
- Slightly higher than one-third (34.00%) of the sampled teenagers are studying in either 11th or 12th class in school, whereas slightly less than one-fourth (22.40%) of them are studying up to 10th Std. 43.6cu0% of them are studying in undergraduation in various courses.

Structural Equation Model (SEM)

The impact of online learning on teenagers' buying behaviour during online shopping was examines through Structural Equation modeling approach. The figure 2 and 3 shows the SEM model for impact of online learning on teenagers' buying behavior based on unstandardized regression coefficients and standardized regression coefficients respectively.

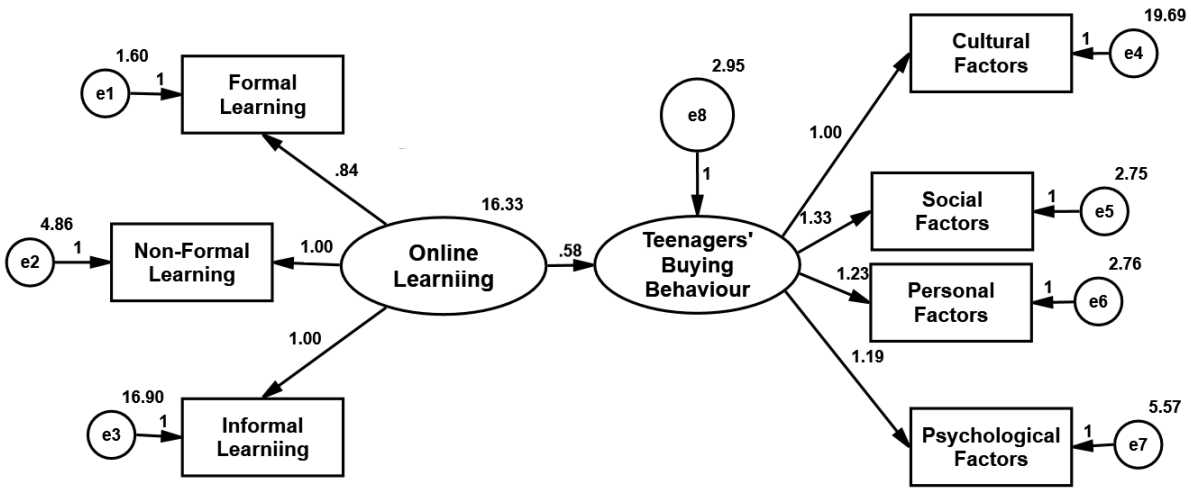

Figure 2. SEM model for impact of online learning on teenagers' buying behavior based on unstandardized regression coefficients.

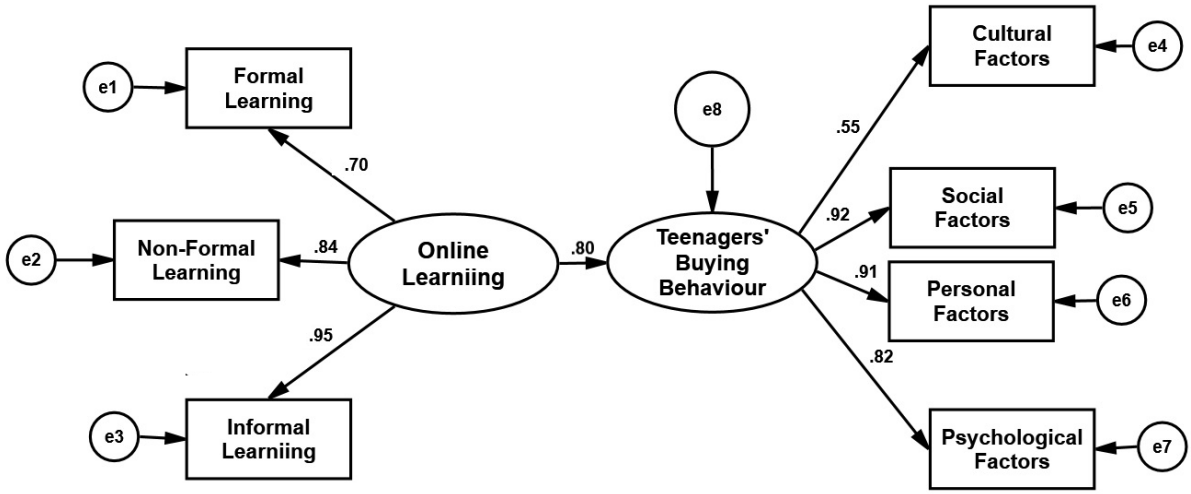

Figure 3. SEM model for impact of online learning on teenagers' buying behavior based on standardized regression coefficients.

The results of the analysis indicates that the factors such as formal learning, non-formal learning, and informal learning has significant positive factor loading on online learning construct. The standardized regression coefficients of formal learning, non-formal learning, and informal learning factors are 0.70, 0.84, and 0.95 (i.e. more than 0.50) respectively. It is also found that all these coefficients are positive and significant at 1% level. Among the chosen factors, it is revealed that informal learning through social networking sites such as Facebook, Twitter, LinkedIn, Instagram, Youtube, etc has the significant positive effect on online learning construct.

Similarly, it is determined that the factors such as cultural, social, personal, and psychological are having significant factor loading on teenagers' buying behaviour construct, which has the standardized regression coefficients of 0.55, 0.92. 0.91, and 0.82 (i.e. more than 0.50) respectively and all these values are positive and significant at 1% level. The results further explain that social and personal factors have significant contribution on teenagers' buying behaviour.

The outcome of the SEM analysis also proved that the online learning has significant positive impact on teenagers' buying behaviour with the standardized regression coefficient of 0.80 which is positive and the hypothesis (Ha1) is significant at 1% level. Finally, based on the result it is interpreted that every unit of increase in online learning may result in 0.80 unit of increase in teenagers' buying behaviour.

The model fitness indices of the given model such as Chi-square (16.432), p value (0.351), GFI (0.939), AGFI (903), RMR (0.039), and RMSEA (0.011) are within the reference range, and indicate good fit of the model with the data.

CONCLUSION

The development of technology has made significant contribution in education system in India. The younger generation has the various channels of learning and gaining access different kind of information through formal learning, non-formal learning, and informal learning. The marketing agencies of multi-national corporations find very difficult in prediction of buying behaviour of younger generations through online. Based on the findings of the study it is concluded that the online learning has significant positive effect on teenagers' buying behaviour during online shopping. The results of the study may give hint to them to focus on informal channels of learning to market their products and services in order to encourage youngsters to buy their products.

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INFLUENCE OF ONLINE SOCIAL MEDIA USAGE AMONG THE YOUTH IN INDIA

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ABSTRACT
Social media is a collection of online platforms and tools that people use to share content, profiles, opinions, insights, experiences, perspectives. It facilitates conversations and interactions online between varied groups of people. Social Media is an important tool, which acts as a platform to voice their opinions. It has its disadvantages too as people who are addicted to social media may experience negative side effects such as eyestrain, social withdrawal or lack of sleep, stress, which may lead to depression and other health related issues. From the beginning of the 21st century, social media is playing important role in the lives of people. In line with Andress & Winterfeld (2013), it's being the reason for widening gap between the elders and youngsters, be it parents and children, this is solely due to lack of awareness. Rituals and traditions have taken a backseat as people are spending too much time online. Structural Equation Model has analyzed the following factors of social media. Social media helps to learn new opportunities was felt by 68% of the people while 72% utilize social media for entertainment. Social media being used for job searching was expressed by 55%. Too much utilization of social media causes health problems was felt by 60% of the respondents. Social media as means of communicating with friends was what 65% of subjects expressed. 46.5% and 59% said social media being used to do online shopping opined social media used for advertisement.

INTRODUCTION

The word "Social Media" refers to collection of applications where in people share, interact, express and participate (Facebook, Twitter, WhatsApp, LinkedIn, or YouTube and many others) (Matheson, 2018). There are web pages that hyperlink people. Social media performs a critical role in people's lifestyles. Users can connect with other men and women within seconds, share their ideas, and give comments by video conferencing. Social media hyperlinks of the persons are showing unique documentaries (Rhodes, 2018). Men and women additionally use social media to get information about different countries. Social media also has negative effect on adolescent's life (Crone, & Konijn, 2018). There are many people who use social media for educational purposes, learning many new things, for entertainment, and for innovation. Individuals registering for memberships on social platforms like Facebook also increasing, people interact with men and women and express their opinion on various issues, share ideas, find solutions etc. Social media helps in job search too. Some companies recruit people via online (Beaman, Keleher, & Magruder, 2018). Some organizations notify their employees about their problems through their specified WebPages. Overall, organizations use it for advertisement (Puncheva-Michelotti, Hudson, & Jin, 2018).

OBJECTIVE

The main purpose of selecting this subject is to find the consequences of social media on youth. How they use it on a day to day basis and how it's influencing their life and its effects on society, academics, time for enjoyment, job possibilities, wellbeing, communication, interaction, enhancing skills, and online shopping.

LITERATURE EVALUATION

Literature review gave an insight into the earlier experiences pertaining to the topic and it helped to select the right methodology for the subjects. Jenkins (2006) described that youngsters grew in the digital environment and digital literacy gave liberty to the kids. Students confidently make use of the internet. Social media is taking lion's share in the life of present day youngsters. Therefore each marketer and social media user are competing to trap the user's eye, so the more attractive the post is, in its distinctive platform, the more powerful social media promoting its product. Some social media systems have elements designed to help in this process, similar to FB insights. Social media is being used tremendously worldwide for advertising. Social media has a major impact on everything, to build a web publication, advertise, earning profits will also be carried out by means of social media structures.

Figure: 1 Social media usage

While they cut back and have an impact on branded content material, crowd culture grease the wheels for an alternative process, cultural branding. In it, a manufacturer sets itself apart by promoting a new ideology that springs from the group. At the same time crowd culture has deflated conventional branding models, without doubt it makes an alternative model of cultural branding even more strong. Mayer (2011) stepped into the void, producing arresting advertisements, which championed the same ideology and took off on social media. Bickford (2011) took advantage of a giant cultural possibility created when marginal movements challenged America's dominant industrial culture grew to be a force to be reckoned with on social media. In cultural branding, the brand promotes an innovative ideology that breaks with class conventions.

Evans, (1996) said social media used to be worthwhile in constructing industry relationship with different states and social media had a confident outcome in setting up and working out cultural relationships. Lagnado, (2011) stated that social media had furnished effective approaches for education. Ellison, (2007) stated that social media played a huge role for educationists. People making use of it to gain knowledge, study and improve their communication skills by means of social media. Social media had offered new web instruments, used by the scholars to refine their competency.

Consistent with Acton (1980), media had negative outcome on grades; about two-thirds of the people used media even for doing homework, or in class which had bad effect on their grades. The creativity is being lost if there is too much dependency on social media. Ohio State institution described that social media was responsible for obtaining low grades for those who spent most of their time on social media, than those who did not spend their time on social media. All of the experiences mentioned above suggest that social media has it's own effects on individuals. So, on this, we will be able to assess the consequences of social media on younger scholars (figure: 1).

MATERIAL AND METHODOLOGY

In this study, 1000 students were selected as a simple random sample from the 28342 students of Anna University, Madras University, Sri Ramachandra Medical University, Satyabama University and, law University by using Cochran formula. The questionnaire was designed and primary data was collected from the selected sample. In the questionnaire, on a scale from Strongly Agree, Agree, Disagree, and to Strongly Disagree, opinion was elicited. After collecting the primary data, its descriptive statistics was measured by using software "SPSS" (Statistical Package for the Social Sciences).

HYPOTHESIS

NH1 The distribution of too much utilisation of social media causes health problems is the same across all categories of subjects.

NH2 The distribution of social media being used for communicating with friends is the same among all the subjects despite different educational qualifications.

NH3 The distribution of social media users for advertisement is the same across all the respondents.

NH4 The distribution of using social media for online shopping is the same across all categories in spite of their different educational qualifications.

NH5 The distribution of social media offering learning opportunities is the same among all subjects.

NH6 The distribution of people utilizing social media for entertainment too is the same among all those who responded.

NH7 The distribution of social media to find a job also the same across categories of people who answered to despite their different educational qualifications.

NH8 The distribution of too much utilization of social media causing health related problems also been accepted by all, be it male or female respondent.

NH9 The distribution of social media for communicating with friends too is the same across both categories of gender.

NH10 The distribution of social media users for advertisement is the same across both the categories of gender.

NH11 The distribution of social media users for online shopping is the same across both genders.

NH12 The distribution of social media offering learning opportunities is the same among both genders.

NH13 The distribution of people utilizing social media for entertainment is the same among all respondents

NH14 The distribution of social media providing an opportunity to find a job is the same across categories of gender.

NH15 The distribution of social media assisting in learning opportunities is the same across categories of social media use for communication with friends.

NH16 The distribution of people utilizing social media for entertainment is the same across categories of social media use for communication with friends.

NH17 The distribution of social media providing an opportunity to find the job is the same across categories of social media use for communication with friends.

NH18 The distribution of social media users for advertisement is the same across categories of social media use for communication with friends.

NH19 The distribution of social media uses for online shopping is the same across categories of social media use for communication with friends.

RESULTS AND DISCUSSION

Table: 1 **Case Summaries**

Case Summaries	Gender		
	Male	Female	Total
Educational Qualification	62.7%	37.3%	100.0%
Marital Status	63.9%	36.1%	100.0%
Type of family	60.1%	39.9%	100.0%
No. of family members	61.4%	38.6%	100.0%
Occupation	57.0%	43.0%	100.0%
Places	60.7%	39.3%	100.0%
Age Group in years	58.2%	41.8%	100.0%

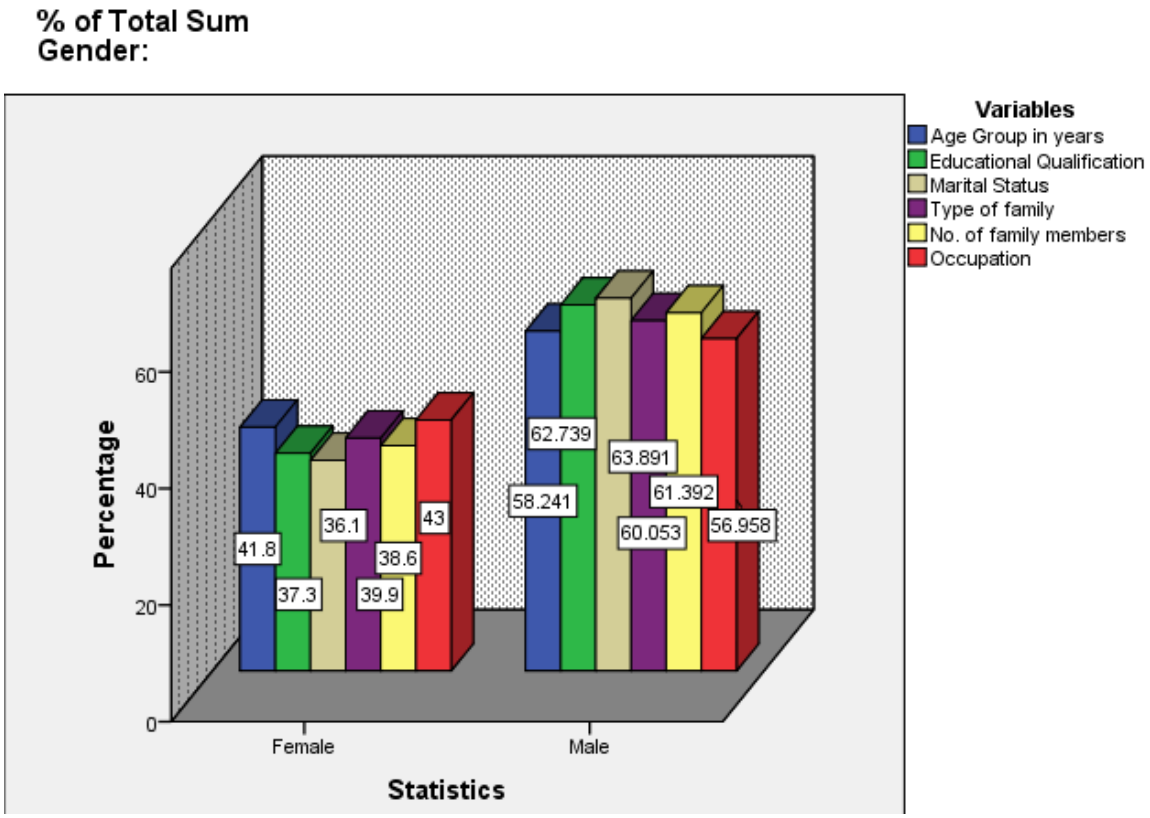

Figure: 2 Case Summaries

Table: 1 and Figure: 2 have described educational qualifications in males as 62.7% and female as 37.3%. Marital status, male 63.9% and female is 36.1%, Type of family in male 60.1% and female is 39.9%. No. of family members in male 61.4% and female is 38.6%. Occupation in male 57.0% and female is 43.0%. Places in male 60.7% and female is 39.3% and age group in years, male accounted for 58.2% and female 41.8%. Generally, male percentage of educational qualification, marital status, number of family members and places are very high between 60%-63% and 39% - 43% are in type of family, places, occupation of family members & age groups.

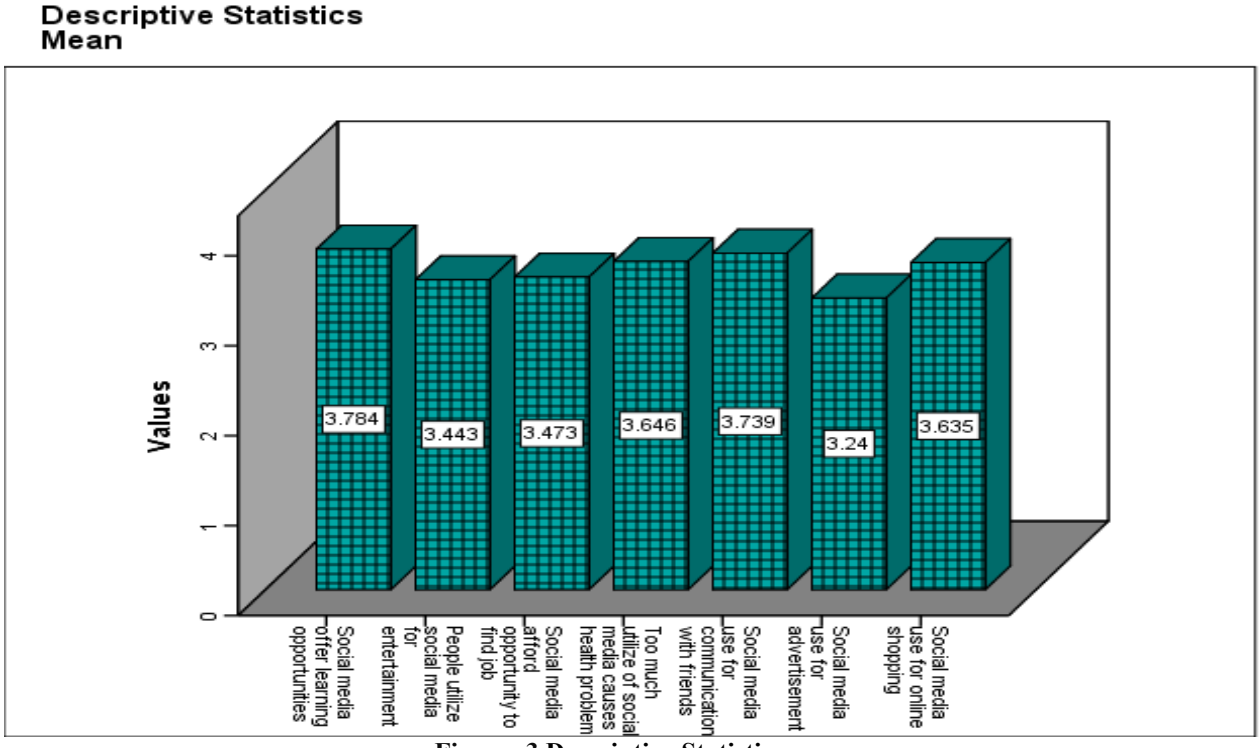

Figure: 3 Descriptive Statistics

Descriptive Statistics (Figure: 3) Social media offers learning opportunities, Mean value is 3.78. People utilize social media for entertainment, Mean value is 3.44 and social media provides opportunity to find job, Mean value is 3.47. Too much utilization of social media causes health problems and Mean value is 3.65. Social media used for communicating with friends, Mean value is 3.74. Social media use for advertisement, Mean value is 3.24 and social media use for online shopping Mean value is 3.64.

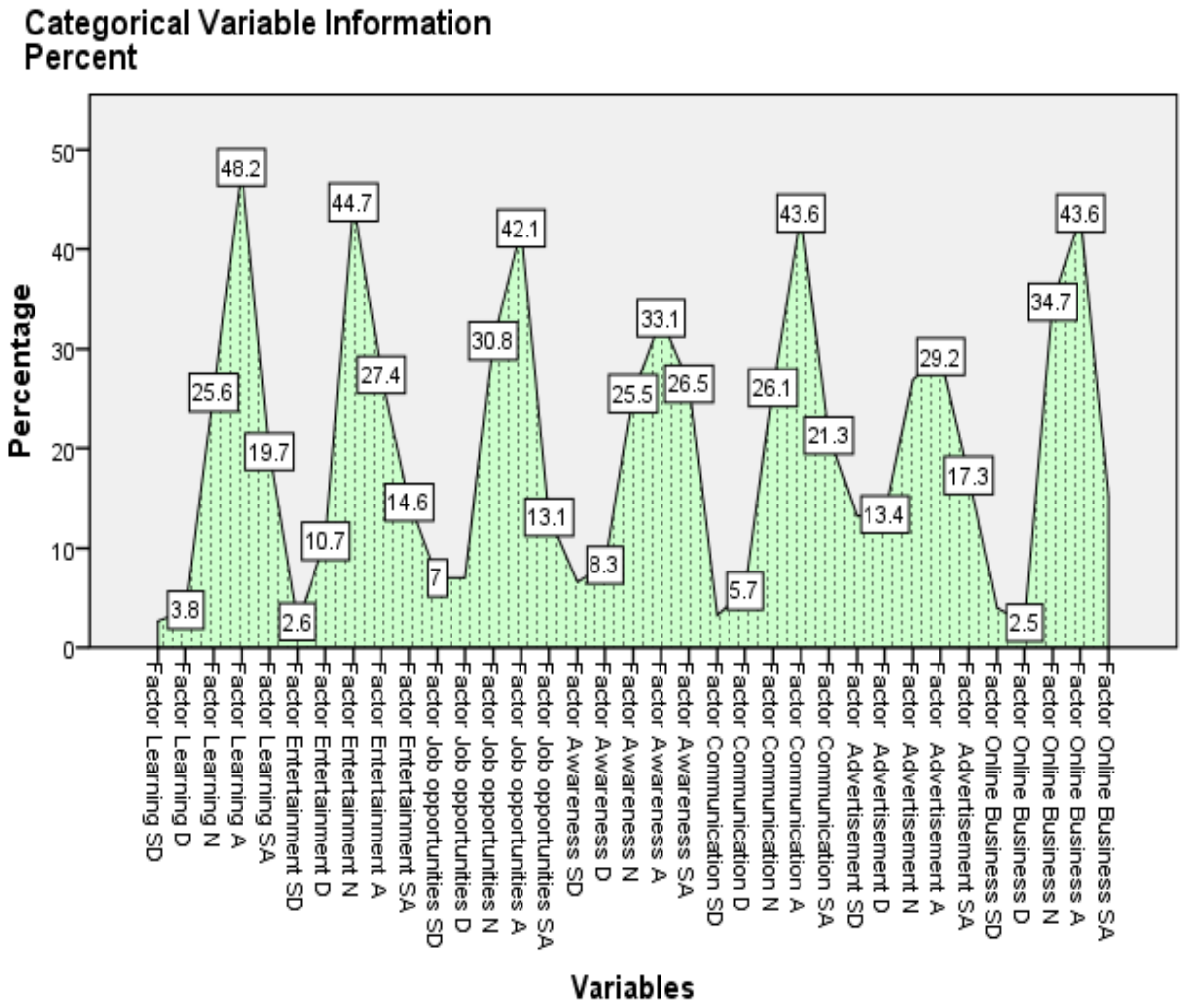

Figure:4 Categorical variable Information

Figure:4 Categorical variable information of Learning: Social media offers learning opportunities as 2.7% Strongly Disagree , Disagree 3.8%, Neutral 25.6%, Agree 48.2% and Strongly Agree 19.7%. Entertainment: People utilize social media for entertainment, Strongly Disagree 2.6%, Disagree 10.7%, Neutral 44.7%, Agree 27.4% and Strongly Agree 14.6%. Job opportunities: Social media offers opportunity to find job, Strongly Disagree 7.0%, Disagree 7.0%, Neutral 30.8%, Agree 42.1% and Strongly Agree 13.1%. Awareness: Too much, utilization of social media causes health problems, Strongly Disagree 6.6%, Disagree 8.3%, Neutral 25.5%, Agree 33.1% and Strongly Agree 26.5%. Communication: Social media used for communication with friends, Strongly Disagree 3.3%, Disagree 5.7%, Neutral 26.1%, Agree 43.6% and Strongly Agree 21.3%. Advertisement: Social media used for advertisement, Strongly Disagree 13.2%, Disagree 13.4%, Neutral 26.9%, Agree 29.2% and Strongly Agree 17.3%. Online Business: Social media used for online shopping, Strongly Disagree 4.0%, Disagree 2.5%, Neutral 34.7%, Agree 43.6% and Strongly Agree 15.2%.

Table:2 ANOVA

Case Summaries		Sum of Squares	df	Mean Square	F	Sig.
Social media offer learning opportunities	Between Groups	8.266	1	8.266	10.402	0.001**
	Within Groups	793.078	998	.795		
	Total	801.344	999			
People utilize social media for entertainment	Between Groups	14.148	1	14.148	15.879	0.001**
	Within Groups	889.203	998	.891		
	Total	903.351	999			
Social media offers opportunity to find job	Between Groups	.856	1	0.856	0.798	0.372
	Within Groups	1070.415	998	1.073		
	Total	1071.271	999			
Too much utilization of social media causes health problems	Between Groups	5.068	1	5.068	3.844	0.050*
	Within Groups	1315.616	998	1.318		
	Total	1320.684	999			
Social media to communicate with friends	Between Groups	.778	1	0.778	0.835	0.361
	Within Groups	930.101	998	0.932		
	Total	930.879	999			
Social media use for advertisement	Between Groups	15.577	1	15.577	9.884	0.002**
	Within Groups	1572.823	998	1.576		
	Total	1588.400	999			
Social media use for online shopping	Between Groups	4.427	1	4.427	5.379	0.021*
	Within Groups	821.348	998	.823		
	Total	825.775	999			

Table: 2 ANOVA, Mean Square of F-value in Social media offering learning opportunities between Groups Mean Square is 8.266, F value 10.402 and Significant value is 0.001**. People utilize social media for entertainment, Mean Square is 14.148, F value is 15.879 and a significant value is 0.001**. Social media offers the opportunity to find job, Mean Square is 0.856, F value is 0.798 and significant value is 0.372. Too much utilization of social media causes health problems, Mean Square 5.068, F value 3.844 and significant value is 0.050*. Total Social media use for communicating with friends, Mean Square 0.778 F value .835 and significant value is 0.361. Social media use for advertisement, Mean Square 15.577 F value 9.884 and Significant value is 0 .002. Social media use for online shopping, Mean Square 4.427, F value 5.379 and significant value is 0.021*.

Figure: 3 Descriptive Statistics

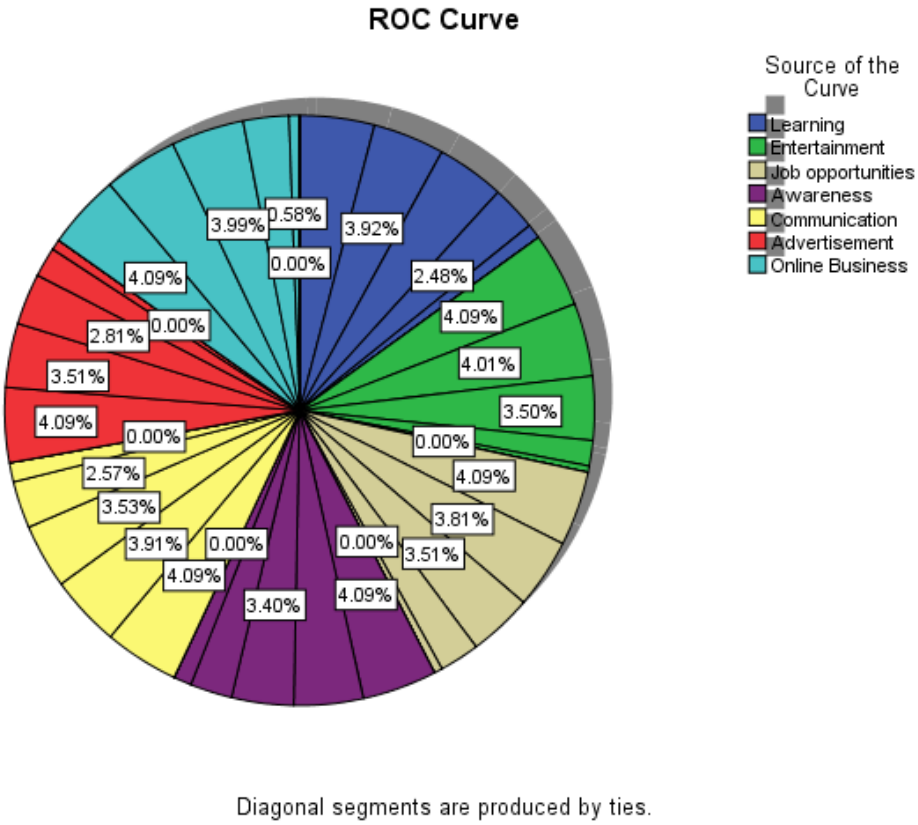

Figure: 5 ROC Curve

Table:3Area Under the Curve

Test Result Variable(s)	Area	Std. Error[a]	Asymptotic Sig.[b]	Asymptotic 95% Confidence Interval	
				Lower Bound	Upper Bound
Learning	.551	.019	.006	.514	.588
Entertainment	.574	.018	.000	.538	.610
Job opportunities	.519	.019	.300	.483	.556
Awareness	.535	.019	.060	.499	.572
Communication	.501	.019	.964	.463	.539
Advertisement	.561	.018	.001	.524	.597
Online Business	.476	.018	.205	.440	.512

The test result variable(s) (Figure: 5 ROC Curve and Table:3Area Under the Curve) Area Under the Curve: Learning, Entertainment, Job opportunities, Awareness, Communication, Advertisement, Online Business has at least one tie between the positive actual state group and the negative actual state group. Statistics may be biased. a. Under the nonparametric assumption, b. Null hypothesis: true area = 0.5.

Table:4 Pearson Chi-Square Tests

Case Summaries		Age Group in years	Gender
Social media offer **learning** opportunities	Chi-square	45.563	20.640
	df	12	4
	Sig.	0.001**	0.001**
People utilize social media for **entertainment**	Chi-square	64.111	27.237
	df	12	4
	Sig.	0.001**	0.001**
Social media **offers opportunity to find job**	Chi-square	17.453	2.619
	df	12	4
	Sig.	0.133	0.623
Too much utilization of social media causes health problems	Chi-square	51.894	3.897
	df	12	4
	Sig.	0.001**	0.420
Social media use to **communicate** with friends	Chi-square	39.102	30.453
	df	12	4
	Sig.	0.001**	0.001**
Social media use for **advertisement**	Chi-square	45.107	14.711
	df	12	4
	Sig.	0.001**	0.005**
Social media use for **online shopping**	Chi-square	13.076	19.910
	df	12	4
	Sig.	0.364	0.001**

Results are based on nonempty rows and columns in each innermost sub-table.
*. The Chi-square statistic is significant at the .05 level.

Table: 4, Pearson Chi-Square Tests Age Group and Gender role, Social media offering learning opportunities, Chi-square value for age group in years 45.563, gender in 20.640 and Significant value is 0.001**. People utilize social media for entertainment Chi-square value of Age Group in years 64.111, gender is 27.237 and Significant value is 0.001**. Social media provides the opportunity to find the job, Chi-square value of age group in years 17.453, in gender 2.619, Significant value are 0.133 and 0.623. Too much utilization of social media causes health problems in Chi-square value of age group in years, 51.894 gender 3.897 Sig. 0.000* and 0.420. Social media being used for communicating with friends, Chi-square value of age group in years 39.102, in gender 30.453 and Significant value is 0.001**. Social media as an advertisement tool, Chi-square value of age group in years 45.107 gender 14.711 Significant values are 0.001** and 0.005**. Social media playing a role in online shopping, Chi-square value of age group in years 13.076 and gender 19.91, Significant values are 0.364 and 0.001**.

STRUCTURAL EQUATION MODEL

Figure:3 and Table: 3 Estimates of regression weights. When Job goes up by 1, entertainment value too goes up by 0.009. The regression weight estimate is .009, has a standard error of about .029. Dividing the regression weight estimate by the estimate of its standard error gives z = .009/.029 = .307. In other words, the regression weight estimate is 0.307 standard errors above zero. The probability of getting a critical ratio as large as 0.307 in absolute value is 0.759. In other words, the regression weight for job in the prediction of entertainment is not significantly different from zero at the 0.05 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

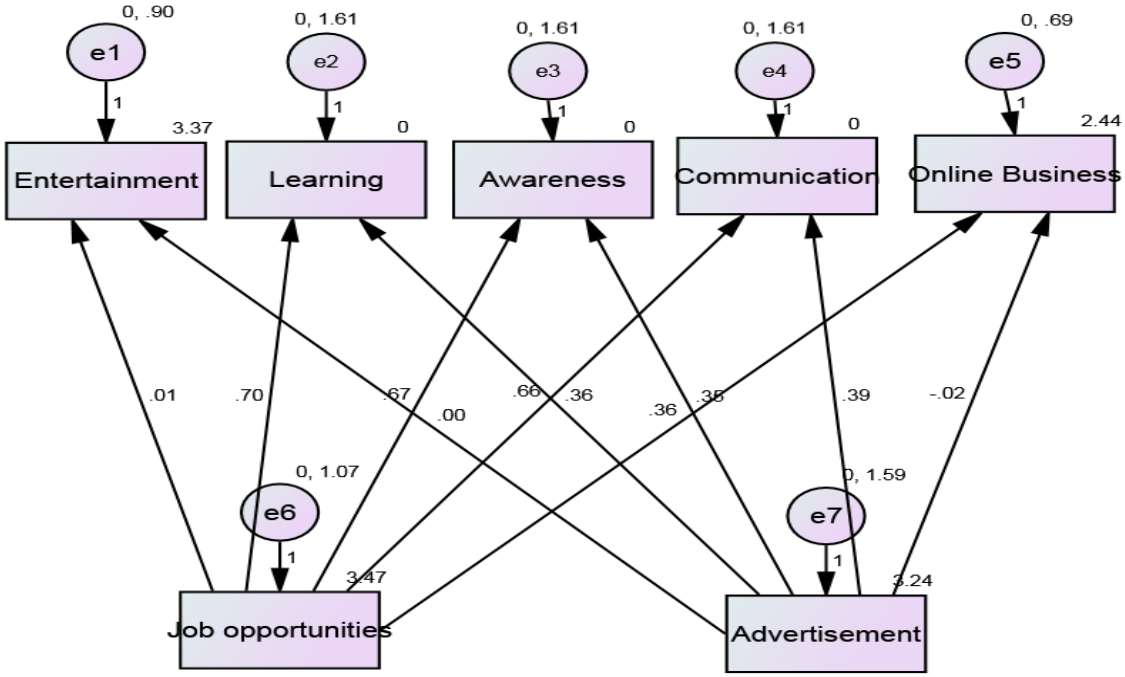

Figure:6 Structural Equation Model

Table: 5 Regression Weights: (Group number 1 - Default model)

			Estimate	S.E.	C.R.	P
Entertainment	<---	Job	.009	.029	.307	.759
Learning	<---	Job	.702	.025	28.497	***
Awareness	<---	Job	.669	.025	27.167	***
Communication	<---	Job	.662	.025	26.891	***
Business	<---	Job	.361	.025	14.262	***
Entertainment	<---	Advertisement	.001	.024	.049	.961
Learning	<---	Advertisement	.360	.026	14.045	***
Awareness	<---	Advertisement	.352	.026	13.714	***
Communication	<---	Advertisement	.394	.026	15.359	***
Business	<---	Advertisement	-.018	.021	-.855	.393

Structural Equation Model (Figure:6) and Regression Weights (Table: 5), When Job goes up by 1, Learning goes up by 0.702. The regression weight estimate, .702, has a standard error of about .025. Dividing the regression weight estimate by the estimate of its standard error gives z = .702/.025 = 28.497. In other words, the regression weight estimate is 28.497 standard errors above zero. The probability of getting a critical ratio as large as 28.497 in absolute value is less than 0.001. In other words, the regression weight for Job in the prediction of Learning is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

When Job goes up by 1, Awareness goes up by 0.669. The regression weight estimate is .669, has a standard error of about .025. Dividing the regression weight estimate by the estimate of its standard error gives z = .669/.025 = 27.167. In other words, the regression weight estimate is 27.167 standard errors above zero. The probability of getting a critical ratio as large as 27.167 in absolute value is less than 0.001. In other words, the regression weight for Job in the prediction of Awareness is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions. When Job goes up by 1, Communication goes up by 0.662. The regression weight estimate, .662, has a standard error of about .025. Dividing the regression weight estimate by the estimate of its standard error gives z = .361/.025 = 14.262. In other words, the regression weight estimate is 14.262 standard errors above zero. The probability of getting a critical ratio as large as 26.891 in absolute value is less than 0.001. In other words, the regression weight for Job in the prediction of communication is significantly different from zero at the 0.001 level (two-

tailed). These statements are approximately correct for large samples under suitable assumptions.

When Job goes up by 1, Business goes up by 0.361. The regression weight estimate, .361, has a standard error of about .025. Dividing the regression weight estimate by the estimate of its standard error gives z = .361/.025 = 14.262. In other words, the regression weight estimate is 14.262 standard errors above zero. The probability of getting a critical ratio as large as 14.262 in absolute value is less than 0.001. In other words, the regression weight for Job in the prediction of Business is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions. When advertisement goes up by 1, Entertainment goes up by 0.001. The regression weight estimate, .001, has a standard error of about .024. Dividing the regression weight estimate by the estimate of its standard error gives z = .001/.024 = .049. In other words, the regression weight estimate is 0.049 standard errors above zero. The probability of getting a critical ratio as large as 0.049 in absolute value is 0.961. In other words, the regression weight for Advertisement in the prediction of Entertainment is not significantly different from zero at the 0.05 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

When Advertisement goes up by 1, Learning goes up by 0.36. The regression weight estimate, .360, has a standard error of about .026. Dividing the regression weight estimate by the estimate of its standard error gives z = .360/.026 = 14.045. In other words, the regression weight estimate is 14.045 standard errors above zero. The probability of getting a critical ratio as large as 14.045 in absolute value is less than 0.001. In other words, the regression weight for advertisement in the prediction of Learning is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

When advertisement goes up by 1, Awareness goes up by 0.352. The regression weight estimate, .352, has a standard error of about .026. Dividing the regression weight estimate by the estimate of its standard error gives z = .352/.026 = 13.714. In other words, the regression weight estimate is 13.714 standard errors above zero. The probability of getting a critical ratio as large as 13.714 in absolute value is less than 0.001. In other words, the regression weight for advertisement in the prediction of Awareness is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

When advertisement goes up by 1, Communication goes up by 0.394. The regression weight estimate, .394, has a standard error of about .026. Dividing the regression weight estimate by the estimate of its standard error gives z = .394/.026 = 15.359. In other words, the regression weight estimate is 15.359, standard errors above zero. The probability of getting a critical ratio as large as 15.359 in absolute value is less than 0.001. In other words, the regression weight for advertisement in the prediction of communication is significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions. When advertisement goes up by 1, Business goes down by 0.018. The regression weight estimate, -.018, has a standard error of about .021. Dividing the regression weight estimate by the estimate of its standard error gives z = -.018/.021 = -.855. In other words, the regression weight estimate is 0.855 standard errors below zero. The probability of getting a critical ratio as large as 0.855 in absolute value is 0.393. In other words, the regression weight for Advertisement in the prediction of Business is not significantly different from zero at the 0.05 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions.

Table: 6 Model Fit summary

Indices	Value	Suggested value
Chi-square	1716.922	>0.05 (Hair et al., 1998)
CMIN	1716.922	>0.05 (Hair et al., 1998)
P Value	0.001**	>0.05 (Hair et al., 1998)
CFI	0.000	> 0.90 (Daire et al., 2008)
PCFI	0.000	>0.90 (Hair et al. 2006)
FMIN	1.719	>0.90 (Hair et al. 2006)
RMSEA	0.326	< 0.08 (Hair et al. 2006)

Model Fit summary (Table: 6)

From the above table: 3 model fit is found that the calculated P value is 0.001** which is greater than 0.05 which indicates perfectly fit. P-Value: Assuming that the Default model is correct, the probability of getting a discrepancy as large as 10.982 is 0.001**. CFI (Comparative Fit Index) value is 1 which means that it is a perfect fit and also it is found that RMSEA (Root Mean Square Error of Approximation) value is 0.326 which is less than 0.10 which indicated it is perfectly fit.

Table: 7. Hypothesis Test Summaries

Null hypo-thesis	**Null Hypothesis Test Summaries**	Sig	Decision
NH1	The distribution of social media offering learning opportunities is the same across subjects with different educational qualifications.	0.047	Rejected
NH2	The distribution of people utilizing social media for entertainment is the same among differently qualified subjects.	0.001	Rejected
NH3	The distribution of social media providing opportunity to find the job too is the same across all categories of respondents.	0.001	Rejected
NH4	The distribution of too much utilization of social media causes health problems is the same across all categories of educational qualification of subjects.	0.050	Rejected
NH5	The distribution of social media use for communicating with friends too is the same among all subjects.	0.027	Rejected
NH6	The distribution of social media use for advertisement too is the same across all categories of educational qualifications.	0.001	Rejected
NH7	The distribution of social media use for online shopping is the same across different categories of educational qualifications.	0.266	**Retained**
NH8	The distribution of social media offers learning opportunities too is the same across both genders.	0.003	Rejected
NH9	The distribution of people utilizing social media for entertainment is the same among both the genders.	0.001	Rejected
NH10	The distribution of social media providing opportunity to find the job too is same in both male and female.	0.273	**Retained**
NH11	The distribution of too much utilization of social media causes health problems is the same across both the genders.	0.050	**Retained**
NH12	The distribution of social media use for communicating with friends is the same across both genders.	0.962	**Retained**
NH13	The distribution of social media use for advertisement too is the same among both male and female.	0.001	Rejected
NH14	The distribution of social media use for online shopping is the same across gender.	0.175	**Retained**
NH15	The distribution of social media offering learning opportunities is the same across categories of social media use for communicating with friends.	0.001	Rejected
NH16	The distribution of people utilizing social media for entertainment is the same across categories of Social media use for communication with friends.	0.006	Rejected
NH17	The distribution of social media providing opportunity to find the job is the same across categories of social media use for communicating with friends.	0.001	Rejected
NH18	The distribution of social media use for advertisement purposes is the same across categories of social media use for communicating with friends.	0.015	Rejected
NH19	The distribution of social media use for online shopping is the same across categories of social media use for communicating with friends.	0.056	**Retained**

Hypothesis Test Summaries in Table: 7 Educational qualifications and Genders of social media use for communicating with friends 0.001 to 0.50 are significant value and rejected null hypothesis, retained hypothesis value are not significant value of 0.51 above.

DISCUSSIONS

Descriptive Statistics in Social media offering learning opportunities is (3.78), Social media has gained credibility over the years as a trusted source of information and platform where organizations can interact with audiences. Social network tools afford students and institutions with multiple opportunities to improve learning methods. Through these networks, you can incorporate social media plugins that enable sharing and interaction. Students can benefit from online tutorials and resources that are shared through social networks and LMS's. Social media use for communication with friends (3.74), With 2.01 billion monthly users, and 88 percent of 18-

29 year olds using this platform, Facebook should always be a top priority for higher education marketers. Facebook is a pioneer in today's social world, allowing people to connect with anybody and anywhere, from their best friends to distant relatives, as well as share their personal thoughts, pictures, videos, and voice their opinion through blogs and links. With 328 million monthly users, and 36 percent of 18-29 year olds using this platform, it can seem like the next best way to reach potential students. Taking into consideration however, that nearly 79% of Twitter accounts are located outside of United States. Instagram Stories now has 250 million daily users (surpassing Snapchat's 166 million daily users). Too much utilization of social media causes health problems (3.65) and social media use for online shopping, (3.64) mean values too are very high. People utilizing social media for entertainment (3.44) and social media providing opportunity to find a job (3.47) and social media as a tool for advertising (3.24), Mean valued are normally low. Learning: Social media offers learning opportunities has been agreed upon by 77% respondents. Entertainment: People utilize social media for entertainment is neutral at 44.7%, Job opportunities: Social media providing opportunity to find job was agreed by 55%. Awareness: Too much usage of social media causes health problems was agreed upon by 66%. Communication: Social media use for communicating with friends was of course strongly agreed by 66.6%. Advertisement: Social media as a platform for advertising, agreed by 55% and Online Business: Social media being used for online shopping too was strongly agreed by 55%.

ANOVA, Mean Square of F-value in social media offer learning opportunities. People utilizing social media for the entertainment. Too much utilization of social media causes health problems, Social media use for advertisement and social media use for online shopping, Significant value is 0 .001**. The test result variable(s), Area Under the Curve: Learning, Entertainment, Job opportunities, Awareness, Communication, Advertisement, Online Business has at least one tie between the positive actual state group and the negative actual state group. Statistics may be biased. a. Under the nonparametric assumption, b. Null hypothesis: true area = 0.5

Pearson Chi-Square Tests Age Group in years, gender, social media offers learning opportunities, people utilize social media for entertainment, too much utilization of social media causes health problems and social media being used as communicating tool among friends. Social media usage for advertisement and social media use for online shopping in Chi-squares value of Age Group in Significant value is 0.001**.

Estimates of regression weights, When Learning <---Job, Awareness<---Job, Communication<---Job, Business<---Job, Learning<---Advertisement, Awareness<--Advertisement and Communication<---Advertisement have significantly different from zero at the 0.001 level (two-tailed). These statements are approximately correct for large samples under suitable assumptions. Social media plays an important role in every student's life nowadays. It is easier and convenient to access information, provide information and communicate via social media, interact, share, and voice their opinion on various issues.

Teachers and students are connected to each other and can make good use of these platforms for their research and development purposes. Social media is not just about brands connecting with their customers. Social media gives an opportunity to talk about what we know and what we want to be known as well as to improve and refine our vision on different topics and educate ourselves and be well aware of the facts. Social media is becoming an integral part of life. In business, social media is used to market products, promote brands, connect to current customers and foster new business.

Social media websites are indeed competing to provide the most engaging conversation and quality entertainment to their users. In addition, what is exciting is that no one knows what would be the next thing in line with so much technological advancements. One thing is certain though, social media will continue to change in its every aspect as time goes by and the technology keeps on getting more advanced. It will continue to influence and change how people see communication and entertainment. Some of the most popular social media websites are Baidu Tieba, Facebook (and its associated Facebook Messenger), Google+, MySpace, Instagram, LinkedIn, Pinterest, Snapchat, Tumblr, Twitter, Viber, VK, WeChat, Weibo, WhatsApp, and Wikia. These social media websites have more than 100,000,000 registered users.

CONCLUSIONS

There is relationship between social media and its effect on grades. Social media offering learning opportunities is 77%, people utilizing social media for entertainment purposes comes to 42%, Social media providing opportunity to find job is 55%. Too much usage of social media causes health problems expressed by 60%, social media use for communication with friends is 65%, social media use for advertising is 46% and social media use for online shopping is 59%.

Though at large, youth gain lot of knowledge through social media, the consequences of it also needs immediate attention. Outcome indicates that social media plays a major role in offering job opportunities too. Young adults

usually use social media for communicating with friends and families. Social media sometimes is the reason for issues that affect values, culture, religion etc and lead to contradictory statements. So users have to bear in mind the cultural values, social norms, and social values while using social platforms in voicing their opinion or sharing ideas or posting any information.

SUGGESTIONS

As Social media is an interactive platform, anything and everything can be posted and hence government has to formulate some strict rules. The government must ban immoral web pages, check the effectiveness of these platforms, bring norms, and adhere to certain stringent regulations. The government has to make policies to verify unfair reporting of media that ruin the society. A strong advice for the users of social media is that they have to bear in mind, all that is available on social media may not be true always and do proper checks before posting views or taking stands. Youngsters have to utilize their time wisely and avoid unnecessary wasting of valuable time on different social networks like WhatsApp, Twitter, Facebook and YouTube. Teachers and parents should keep an eye on children as to what websites they are visiting and can guide them properly so that they make good use of the social media in educating themselves and getting awareness on many unknown facts.

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MOTIVATIONAL EFFECTS OF BANGLADESH BETAR'S FARM PROGRAMS: MARKETING PROSPECTS ANALYSIS FOR DISTANCE EDUCATION

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ABSTRACT
Bangladesh Betar (BB) broadcasts farm programs (FP) for educating and motivating Bangladeshi farmers to adopt modern farm technologies. But the low listenership of the FP and the ignorance of farmers raised questions of the effectiveness of the FP. This study aimed at marketing prospects analysis of the FP of BB through its motivational effects on adopting new farm technologies. Data collected from surveying 465 farmers were analyzed with binary logistic regression analysis. This study reveals that the FP has motivational effects on the farmers that indicates its high marketing prospects. Befitting marketing strategies are to be formulated to ensure high listenership of the FP.
Keywords: Bangladesh Betar, Farmers of Bangladesh, Farm Programs, Motivation, Farm technologies.

INTRODUCTION

Most of the farmers engaged in agricultural activities in Bangladesh have very poor knowledge in modern agro-technology and agro-information (Hasan, et al., 2017). On the other hand, farmers' access to different information sources is not adequate (Kashem and Islam, 2001). Most of the farmers use multiple sources of information for accepting or rejecting new practices (Mason, 1964). But the fact is that, most of them deserve negative attitude towards the authorized sources (Agricultural Officers, Fisheries Officers and Veterinary Surgeons) of farm information and do not search for information from them (Hasan, et al., 2017). Proper use of information by the farmers would help to achieve maximum production in their farms (Kashem and Islam, 2001). So, the farmers should be encouraged to adopt new modern uses of technologies. In recent past, considerable resources have been invested in the country as a result there are some matured technologies for farmers (Kashem and Rahman, 1995). But their proper diffusion has not been ensured so far. The basic function of extension is to assist the transfer of appropriate technologies among the farmers. The transfer of technologies, however, to a great extent depends on the effective use of different communication media (Kashem, Halim and Rahman, 1992). Besides, in the innovation-decision process, mass media channels are important means to create knowledge and spread information rapidly to a large audience and can change some weakly held attitudes (Heong, et al., 1999). Bangladesh Betar (BB), the national radio of Bangladesh from its very beginning has been trying to disseminate extension related information to the farmers by means of its farm programs (FP) with a view to changing the long cherished farm related wrong attitude and behaviours and motivating them to adopt scientific farm technologies. Because, it is proved that rural farmers in particular in many regions of the world find radio as a veritable source of deriving extension related information (Fadiji, 2005) and listening to farm programs especially in group is very influential in changing beliefs and attitudes towards innovations (Jain, 2014). A study on need assessment divulged that almost all the farmers wanted farm programs where they would get suggestions and solutions for the problems they face in farming and a reasonable number of farmers wanted radio farm programs (Hasan, et al., 2016); it was also seen that The farmers who listened to the FP were likely to acquire farm knowledge 6.62 times more than the farmers who did not listen to the FP (Hasan, et al., 2017) but only 6.67% of the farmers listen to the FP of BB (Hasan, et al., 2017). And this low listenership raised questions of the effectiveness and marketing prospects of the FP of BB. In this research work, the marketing prospects of FP of BB were analysed through the study of its effectiveness in motivating the farmers to adopt new farm technologies.

DATA AND METHODS

Sources of data: Data from both the primary and secondary sources were collected by means of document analysis and sample survey. Relevant documents of BB and other pertinent organizations were analyzed. Primary data were collected from the sampled farmers through questionnaire survey technique.

Sampling: All the regional stations of BB have their own FPs developed as per the requirements of the local farmers but the contents and formats are fixed by the head office (BB, Dhaka). So, in respect of subjects, topics and formats of all the programs are the same and can be represented by any of them. So, the whole of BB can be

represented by any single regional station. This study purposively selected BB, Khulna; and BB, Rajshahi. The BB, Khulna is one of the biggest radio stations covering the total of the south-west of Bangladesh and the BB, Rajshahi is also one of the biggest radio stations covering almost all of the northern part of Bangladesh. There are eighteen upazillas (sub-districts) in Khulna and Rajshahi districts (nine for each). Multistage stratified sampling technique was used. At the 1st stage, eight upazillas were selected out of eighteen (four from each district) of Khulna and Rajshahi districts. At the 2nd stage, eight Unions (the smallest local government unit) were selected from eight upazillas (one from each upazilla) and at the 3rd stage, sixteen villages (two from each union) were selected. At the 4th stage, the farmers (respondents) were selected by means of random sampling technique from each village and the total sample size was determined using the following formula:

$$n = \frac{Z^2 pq}{\varepsilon^2}$$; assuming that $p = 0.5$ and $q = 0.5$.

Where, n = sample size, Z = tabulated value = 1.96 (for large sample at 5% level of significance), p = proportion of success, $q = 1 - p$ = proportion of failure, ε = margin of error = 0.05.
Based on this formula 384 respondents are to be selected from the two districts. But for conducting a research 465 respondents were selected from the two study areas and the area and sector-wise sampling are presented in Table 1.

Table1 Area and sector-wise sample sizes of the farmers and listeners of FPs of BB

Sectors	Khulna (n_1)	Rajshahi (n_2)	Total	Listeners
Crop	81	191	272	17
Livestock	33	42	75	6
Fisheries	79	39	118	8
Total	193	272	$N = 465$	31

Data collection: A sample of 465 farmers was surveyed from June to September, 2014 to collect primary data pertinent to the study objective. Content analysis technique was followed to collect secondary data from the documents of BB and other relevant organizations viz. Ministry of Agriculture and, Ministry of Fisheries and Livestock.

Data analysis: Frequency distribution, *z*-tests and binary logistic regression analysis were conducted for the data collected. Farmers from each sector (crop, livestock and fisheries) were grouped separately for better comparison. From the crop sector 272 respondents, from the livestock sector 75 respondents and from Fisheries sector 118 respondents were selected. Farmers of each sector were then divided into listener (coded 1) and non-listener (coded 0) group. To make a comparison between the listener and non-listener of the FP of BB some scientific practices of each sector (ten from crop, nine from livestock and seven from fisheries sector) were selected which were regularly broadcast through the FP of BB. A frequency distribution of the responses of the farmers was conducted to check whether they follow the scientific practices or not. Each positive response was coded '1' and otherwise '0'.Then the significance test (*z*-test) of the differences was conducted. In the binary logistic regression models scientific practices (Y) was treated as the dependent variable. The dependent variables (Y_i, i=1,2,3,4,5,6,7,8,9) were classified in the following manners:

$$Y_i = \begin{cases} 0, & low, \\ 1, & high, \end{cases}$$ where i= 1,2,3,4,5,6,7,8,9

Statistical Package for Social Sciences software version 17.0 (SPSS Inc., Chicago, IL, USA) and STATISTICA 8 were used for data analysis.

RESULTS

This study reveals that the farmers of Bangladesh are generally accustomed to unscientific farm practices. The FPs of BB were designed to motivate the farmers to use the scientific technologies in farming and to alleviate the negative attitude towards the experts and farm technologies from the minds of the farmers. It was observed that in the crop sector out of 272 farmers only 17 (06.25%) farmers (Table 1) listened to the FPs of BB. This study also reveals that in the comparison between the listeners and non-listeners of FPs of BB the scientific practice adoption rate is high among the farmers who listen to the FPs of BB (Table 02).

Table 2 Significance test of difference of proportions of farm practices (crop sector)

Name of Practices	Variables	Number of farmers (n)	Practicing Farmers	percentage (%)	p values
Integrated Pest Management (IPM)	Non-listener of FP	255	25	09.80	
	Listener of FP	17	4	23.52	0.0774
Using Balanced Fertilizer	Non-listener of FP	255	16	6.27	
	Listener of FP	17	4	23.52	0.0091
Using Guti Urea	Non-listener of FP	255	13	5.09	
	Listener of FP	17	5	29.41	0.0004
Using Pesticides Scientifically	Non-listener of FP	255	38	14.90	
	Listener of FP	17	6	35.29	0.0278
Scientific Seedbed	Non-listener of FP	255	24	9.41	
	Listener of FP	17	4	23.52	0.0649
Harvesting Seeds separately	Non-listener of FP	255	102	40	
	Listener of FP	17	12	70.58	0.0139
Irrigation at Critical moment	Non-listener of FP	255	6	2.35	
	Listener of FP	17	1	5.88	0.3824
Using Organic Fertilizer	Non-listener of FP	255	184	72.15	
	Listener of FP	17	12	70.58	0.88866
Drying seeds at times	Non-listener of FP	255	138	54.11	
	Listener of FP	17	10	58.82	0.70394
Examining the soil for using fertilizers	Non-listener of FP	255	4	1.56	
	Listener of FP	17	0	0	0.59612

Note: Here FP refers to the farm programs of Bangladesh Betar.

In the significant tests it was seen that in most of the cases of scientific practices in crop sector the differences between the listeners and non-listeners were quite significant ($p < .05$). In the logistic regression model it was seen that in case of crop sector if a farmer listened to the FPs, he/she was likely to adopt scientific farm technologies- Following IPM, Using balanced fertilizers, Using guti urea, Using pesticides scientifically, Harvesting seeds separately, Using scientific seed beds 2.96 times (OR: 2.962; 95% CI: 0.895-9.802), 4.596 times (OR: 4.596; 95% CI: 1.344-15.719), 7.756 times (OR: 7.756; 95% CI: 2.376-25.321), 3.316 times (OR: 3.316; 95% CI: 1.138-9.662), 3.553 times (OR: 3.553; 95% CI: 1.215-10.390), 2.962 times (OR: 2.962; 95% CI: 0.895-9.802) respectively more than the farmers who did not listen to the FPs (Table 3).

Table 3 Effects of farm programs (FPs) of Bangladesh Betar on the farm practices of the farmers

Scientific Practices	Characteristic	Coefficient (β)	SE (β)	p values	Odds ratio (OR)	95% CI for OR	
						Lower	Upper
Following IPM	Listening to FP						
	Do not listen (R)				1.00		
	Listen	1.086	0.611	0.075	2.962	0.895	9.802
	Constant	-2.264	0.214	0.000	0.104		
Using balanced fertilizer	Listening to FP						
	Do not listen (R)				1.00		
	Listen	1.525	0.627	0.015	4.596	1.344	15.719
	Constant	-2.704	0.258	0.000	0.067		
Using guti urea	Listening to FP						
	Do not listen (R)				1.00		
	Listen	2.049	0.604	0.001	7.756	2.376	25.321
	Constant	-2.924	0.285	0.000	0.054		
Using pesticides scientifically	Listening to FP						
	Do not listen (R)				1.00		
	Listen	1.199	0.546	0.028	3.316	1.138	9.662
	Constant	-1.710	0.176	0.000	0.181		
Harvesting seeds separately	Listening to FP						
	Do not listen (R)				1.00		
	Listen	1.268	0.548	0.021	3.553	1.215	10.390

	Constant	-0.392	0.128	0.002	0.675		
Using scientific seed beds	Listening to FP Do not listen (R) Listen Constant	 1.086 -2.264	 0.611 0.214	 0.075 0.000	 1.00 2.962 0.104	 0.895	 9.802
Using anthelmintic regularly	Listening to FP Do not listen (R) Listen Constant	 1.931 -1.609	 1.122 1.095	 0.085 0.142	 1.00 6.897 0.200	 0.764	 62.217
Cleaning dwelling places	Listening to FP Do not listen (R) Listen Constant	 2.369 -1.609	 1.125 1.095	 0.035 0.142	 1.00 10.682 0.200	 1.177	 96.976
Routine vaccination of the chicken	Listening to FP Do not listen (R) Listen Constant	 1.891 -1.198	 0.912 0.285	 0.038 0.000	 1.00 6.625 0.302	 1.109	 39.565

Note: 'R, the reference category', 'CI, the confidence interval'.

In the livestock sector out of 75 farmers only 6 farmers (8%) listen to the farm programs (Table 1).The study also revealed that in the comparison between the listeners and non-listeners of FPs of BB the scientific practice adoption rate is high among the farmers who listen to the FPs of BB (Table 4).

Table 4 Significance test of the difference of proportions of farm practices (livestock sector)

Name of Practice	Variables	Number of farmers (n)	Practicing Farmer	percentage (%)	p values
Routine usage of anthelmintic	Do not listen to FP Listen to FP	69 6	29 5	42.00 83.33	 0.0551
Artificial Insemination	Do not listen to FP Listen to FP	58 5	31 4	53.44 80.00	 0.25014
Cleaning with antiseptics	Do not listen to FP Listen to FP	69 6	22 5	31.90 83.33	 0.0141
Regular Vaccination before rainy season	Do not listen to FP Listen to FP	65 6	23 4	35.38 66.67	 0.13104
Feeding urea molasses straw	Do not listen to FP Listen to FP	58 5	7 2	12.06 40.00	 0.08726
Vaccinating the Chickens Regularly	Do not listen to FP Listen to FP	54 5	16 4	29.63 80.00	 0.02202
Drying the grass before feeding in the rainy season	Do not listen to FP Listen to FP	58 5	9 1	15.51 20.00	 0.79486
Separating the sick animals from the others	Do not listen to FP Listen to FP	69 6	45 6	65.22 100.00	 0.08012
Burying the dead animals	Do not listen to FP Listen to FP	69 6	37 5	53.62 83.33	 0.79486

Note: FP refers to the farm programs of Bangladesh Betar.

In the significant tests it was seen that in most of the cases of scientific practices the differences between the listeners and non-listeners were quite significant ($p < .05$). In the logistic regression model it was seen that if a farmer listened to the FPs, he/she was likely to adopt scientific farm technologies-Using anthelmintic regularly, Cleaning dwelling places, Routine vaccination of the chicken 6.897 times (OR: 6.897; 95% CI: 0.764-62.217), 10.682 times (OR: 10.682; 95% CI: 1.177-96.976), 6.625 times (OR: 6.625; 95% CI: 1.109-39.565) respectively more than the farmers who did not listen to the FPs (Table 3).

In the fisheries sector out of 118 farmers only 8 farmers (6.78%) listen to the FPs of BB (Table 1).The study also revealed that in the comparison between the listeners and non-listeners of FPs of BB the scientific practice adoption rate is high among the farmers who listen to the FPs of BB (Table 5).

Table 5 Significance test of difference of proportions of farm practices (fisheries sector)

Name of practices	Variables	Farmers (n)	Practicing farmer	Percentage (%)	p values
Water Purification	Do not listen to FP	110	93	84.54	
	Listen to FP	8	8	100.00	0.2311
Using lime for keeping water fresh and fish healthy	Do not listen to FP	110	16	14.56	
	Listen to FP	8	2	25.00	0.4263
Maintaining the food-ratio	Do not listen to FP	110	18	16.36	
	Listen to FP	8	2	25.00	0.5329
Examining health	Do not listen to FP	110	77	70.00	
	Listen to FP	8	7	87.50	0.2935
Maintaining fish number	Do not listen to FP	110	9	8.18	
	Listen to FP	8	0	0	0.4009
Separating the infected fish from others	Do not listen to FP	110	80	72.73	
	Listen to FP	8	8	100.00	0.08186
Seeking doctor's suggestions during diseases	Do not listen to FP	110	47	42.73	
	Listen to FP	8	6	75.00	0.07672

Note: FP refers to farm programs of Bangladesh Betar.

In the significant tests it was seen that in most of the cases of scientific practices the differences between the listeners and non-listeners were not significant. But the fact is that the listeners are motivated more to accept the new scientific technologies.

In this study it was also seen that many of the farmers who do not listen to the farm programs of Bangladesh Betar have negative attitudes towards the government experts. A vast majority of the respondents consider that the experts especially the agriculture officers and fisheries officers do not know anything. Even some of the farmers thought that if they follow the suggestions of the experts, they would be at stake and that was why they used to do everything according to their own indigenous farm knowledge. But none of the farmers who listen to the farm programs made any negative comments about the expert and modern technologies. This is a clear indication of the effectiveness of the farm programs in changing the mindset of the farmers and motivating them thereby.

DISCUSSION

The objective of the study was to reveal the effectiveness of FPs of BB in motivating the farmers to adopt the scientific farm practices. It is seen that in most of the cases the farmers who listened to the FPs tried to follow the scientific practices more than the farmers who did not listen to the FPs. It means, the FPs of BB were effective in motivating the farmers to adopt the scientific technologies in farming and this finding agrees with the studies of many researchers (Jain, 2014 and Piotrow, P. T. et al., 1992). The reason behind this finding might be that the farm programs are *Ashor* (a program format where actors of different actors like farmers, teacher, neighbor and so on discuss in a dramatic way) based discussion programs where there are some actors along with the expert who discuss on a certain topic of scientific farm technologies in local vernacular where their conversation were inspirational and in some programs successful farmers of any sector present the success stories which might act as a motivational force. In comparison among the sectors (crop, livestock and fisheries) it was seen that the fisheries and livestock farmers are less motivated than the crop farmers. The reason behind this is due to fewer programs on livestock and fisheries are broadcast. The study reveals that only one day per week is fixed for each of the two sectors (livestock and fisheries) whereas programs on crop sector were broadcast four days per week. Even the mindset of the farmers who listen to the farm programs shaped up better than that of the farmers who do not listen to the farm programs. This result is in agreement with those of the studies (Jain 2014, Sasidhar, Majumdar and Garg, 2008 and Heong, et al., 1999). The reason behind this finding might be that after listening to the FPs of BB they could make a comparison between the information they got from FPs and what the field level experts suggested. When the experts' suggestion matched with the information got from FPs they got motivated. This study revealed that the FPs have the ability to motivate the farmers. According to marketing philosophies (Production, product and marketing concepts) a quality product or service with market demand will be marketed properly if its availability can be ensured in the market. As the farmers of Bangladesh have a dire need of FPs (Hasan, et al., 2016) and the FPs have motivational effects on the farmers, the marketing prospects of FPs of BB are very high for the extension services for the diffusion of the modern farm technologies among the farmers of Bangladesh.

The limitation of the study is that the study is confined to crop, fisheries and livestock sectors and the forest sector is deliberately excluded for time and economic restraints. Another limitation of the study is that out of eight divisions only Rajshahi and Khulna were selected as study area. There may be further studies on developing a listener driven marketing strategy, finding out the device which is culturally fit to convey the FPs to the farmers and so on for accelerating the extension services.

CONCLUSION

The farmers who listen to the farm programs of Bangladesh Betar are more aware of the modern technologies for farming and are more motivated to adopt the new technologies. Even the mindset of the farmers who listen to the farm programs shape up better than those of the farmers who do not listen to the farm programs. This implies that the farm programs of Bangladesh Betar have motivational effects on the farmers in adopting the modern technologies. From this study it is reasonably inferred that there is a high prospect of marketing the FPs of BB. BB authority should formulate befitting marketing strategies for the FPs of BB.

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ROLE OF E-LEARNING AND DIGITAL MEDIA RESOURCES IN EMPLOYABILITY OF MANAGEMENT STUDENTS

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ABSTRACT
Teaching-Learning is an important process in any society, which faciliates the sharing of knowledge, skill, and attitude by the older generation to the new generation in the society. Enormous technological interventions in the society facilitates lot of innovative tools to simplify the learning process and encourages self-learning among the individuals. The purpose of this paper is to explore the role of e-learning and digital media resources in employability of management students in Chennai city. The survey was conducted among 130 management students from thirteen higher education institutes which offers MBA programme. The primary data collected through the questionnaire was analyzed through frequency analysis and structural equation modeling approach. The results of the study explored that use of e-learning and digital media resources in management education has significant positive impact in employability of management students in Chennai city.
Keywords: e-learning, digital media, management education, employaility, management students

INTRODUCTION

Youth is the most important asset of any country, because during this period the human resource would have its maximum physical and metal abilities to perform the given task. The significant changes in demographic profile of the globe has given greater opportunity to India, which has a largest share of the youth population which may have this advantage for the forthcoming twenty years (Indian Central Statistics office, 2017). According to United Nations (2014) in the report titled 'The power of 1.8 billion' said "28 per cent of India's population is 10 to 24 year-olds, adding that the youth population is growing fastest in the poorest nations. Global number of youths is highest ever".

Youths are dynamic in nature and they acquire most of the skills and orientations for their livelihood during this period. Youth in the country contributes for the growth of the nation through earning wealth. Employability of youth in any nation generally depends on their abilities and competencies to perform any specific work/ occupation/ profession. The individual competencies and abilities to perform a specific occupation/ profession is based on their knowledge, skills, and attitudes (KSAs) in that particular domain.

Generally, in India, the KSAs required to perform a specific work/ occupation is acquired by an individual through formal school education and higher education. The school education is of different standards such as Uniform System of School Education, Matriculation, Central Board of Secondary Education (CBSE), Indian Certificate of Secondary Education (ICSE), etc., similarly the higher education of different categories such as technical, engineering, arts& science, law education, medicine, management, agriculture etc., which as different course and sub categories in short-term, diploma, undergraduate, post-graduate, doctorate level courses. However, there any many individual in India those who are working in unorganized sectors without formal education acquiring KSAs through informal education through learning by doing and they are also able to successful in construction, transportation, agricultural sectors, etc. Apart from this state and Central government departments, Ministry of Micro, Small & Medium Enterprises, non-governmental organizations (NGOs), state and central universities, and industries also offer specific training programmes or short-term certification courses to enhance the employability of rural men and women in specific profession.

India is the world's largest provider of management education. Indian business organizations and multinational organizations in India demands high caliber intellectuals and management executives who can better perform in highly competitive technological business world. The management education in India plays a critical role in developing management executives for the present and future organizations. It also develops entrepreneurs in India who floats technology based startups and employ 10 - 100 people in their firm and contributes for GDP of the nation. AIMA aimed to take the Indian management education system as the second best in the world by 2025.

E-learning is the use of Internet technologies to enhance knowledge and performance. E-learning technologies offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal learning objectives. E-Learning and digital sources provides significant contribution in technical (Tariq Banday et al., 2014) medical (Gemma Keefe et al., 2012; Ruiz et al., 2006), management education (Vannie naidu, 2017), etc., The new technologies are teaching tools that can be used to assist academics to enhance their teaching in the classroom (Vannie naidu, 2017). The main objective of this paper is to explore the role of e-learning and digital resources in employability of management graduates in Chennai city.

THEORITICAL FOUNDATION OF THE STUDY

The basic terms and concepts related to the study is discussed in this section.

E-Learning

In general, the term e-learning "is an umbrella term describing any type of learning that depends on or is enhanced by electronic communication using the latest information and communication technologies" (E-Content Report, 2004). According to American Society for Training and Development (ASTD) the term 'e-Learning' can be defined as, "anything delivered, enabled, or mediated by electronic technology for the explicit purpose of learning". It also covers a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN), audio-and videotape, satellite broadcast, interactive TV, and CD-ROM.

Digital Media

The term 'Digital media' refers to a digitized content which can be transmitted over the internet or computer networks, which include text, audio, video, and graphics. Example for digital media includes the news from a TV network, newspaper, magazine, etc. that is presented on a Web site or blog can fall into this category. Digital Media indicates the use of Digital Media indicates the use of computer technology to combine various forms of media. Digital Media is electronic media that works using digital codes to create digital audio, digital video or other digital content. This is in contrast to analog media, older technology which uses a continuous signal.

Employability

Generally, the students wish to join in various courses in higher education which would increase their employability in the specific industry. According to Mantz Yorke (2004), the term 'Employability' refers to "a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy'.

Earlier researches evident that the employability of an individual depends upon his/ her Knowledge, Skills, and Attitude (KSAs) in the specific job/ profession.

Knowledge

Organized form of information about particular domain is known as 'Knowledge'. Information evolves to knowledge by the learner's gaining context, perspective and scope about the information. Knowledge is the cognitive processing of information, which encompasses the recall, recognition, understanding, application, and evaluation of facts, patterns, and concepts. In our Indian education system, the knowledge of the students in higher education are examined through written or oral exams where a person documents or explains what they know. Knowledge form the base for the development of skill and attitude of an individual, so that the individual is to apply the skills to perform a task or to modify an attitude (Saikumari et al., 2018).

Skills

The term 'skills' refers to application of knowledge in an effective and efficient manner to perform specific task/ job/ profession. Skills are related to physical and mental ability of an individual to perform a specific activity. Competency and proficiency in the execution of skills requires training and practice. Skills are measured in

terms of speed, precision, and/or technique through observation or monitoring. Skills are usually learned through the transfer of knowledge.

Attitude

The term 'attitude' refers to predisposition behavior of an individual which may create favourable or unfavourable feeling or emotion towards the particular object. A person's attitude can significantly affect feelings, values, appreciation, and motivations towards something. Development or adjustment of a person's attitude may take a considerable amount of time and effort. In general, it is difficult to assess the person's feeling about something. It is even more difficult to measure how much change occurred in a person's attitude as a result of training or educational activities.

Management Education

According to Sen Gupta (2017), "Management education is, by its very nature, professional in contour and design. This means that management education is aimed at augmenting knowledge, skills and attitude (KSA) so that the students who receive such education attain the required KSA to become eligible to be part of a corporate or other sector for further contribution to the economy for its growth".

In India, standard of management education in transformation from traditional teacher-centric learning to student-centric learning through implementation of technology based tools using e-learning and digital learning resources such as Learning Management Systems (LMS), MOOC courses, NPTEL courses, Moodle courses, etc., Management educators in most forms of organizations, from multinational corporations to small business companies, have increasingly engaged in the use of online delivery of instruction (Aguinis & Kraiger, 2009).

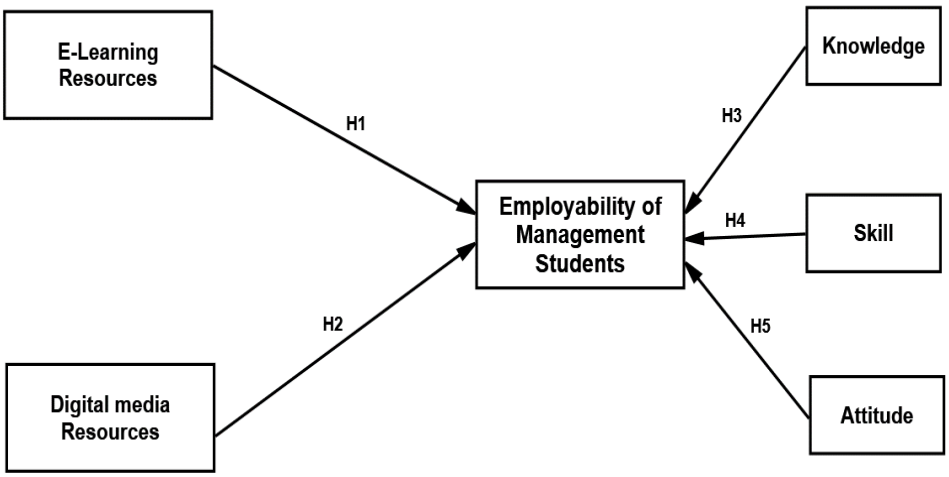

Figure 1. Conceptual Framework of the study

Based on the above model, following hypothesis can be formulated:

H_1: Use of e-learning resources in management education significantly increases the employability of the management students.

H_2: Use of Digital media resources in management education significantly increases the employability of the management students.

H_3: Knowledge development through e-learning and digital media resources in management education significantly increases the employability of the management students.

H_4: Skills development through e-learning and digital media resources in management education significantly increases the employability of the management students.

H_5: Attitude change/ development through e-learning and digital media resources in management education significantly increases the employability of the management students.

The above-mentioned hypothesis are tested through structural equation modeling (SEM) approach.

REVIEW OF LITERATURE

Surya Mahadevan (2017), in his article "Future of Management Education in India" mentioned that the large skew in the quality of students and management Education Institutions makes it very difficult to give one definitive path. The student neither knows the specific sector nuance nor does (s) he have adequate operating knowledge that his job demands. Corporate continue to lament that the students are NOT READY finished

products. This large gap between demand expectations and supply delivery is likely to be bridged with Sector specific curriculum - Custom designed for one sector and not multiple sectors.

Aveek Datta (2016) in his article titled 'Management education has failed in India: Nirmalya Kumar' mentioned that "the traditional model of management education that has been practiced in the country for decades has failed to serve its purpose. None of the Indian universities features among the top 200 in the World University Rankings (brought out by Times Higher Education)".

Angad Singh Thakur (2016) in his article titled, 'E-learning gets a reboot with business education', stated that "online education is recalibrating its focus to target sectors that would benefit the most from it. One such sector in the Indian context is business education"

Gemma Keefe et al., (2012), determined the effectiveness of an e-learning intervention on pain management developed for nursing students. Two variants of an e-learning resource on pain management were developed, each containing the same core content but one with a section focusing on pain assessment and the other on pharmacological management. Results support the effectiveness of the resources independent of voluntary-response bias. Conclusions recommend that introducing e-learning has substantial benefit to enhance pain education in nursing.

Deepak Chawla and Himanshu Joshi (2012), in their paper examined the awareness levels, degree of familiarity and readiness to accept e-learning environment. Exploratory study and personal interviews were conducted to design the instrument which was administered to 240 students pursuing management education at the Indian Institute of Management, Ahmedabad (IIM-A), which is a premier business school in India. A total of 154 duly filled questionnaires were used for data analysis. Factor analysis, cluster analysis and chi-square test were carried out to meet the objectives of the study. Findings - Factor analysis resulted in identification of five factors which were given names. Further, two clusters were identified among the respondents. To examine if the cluster profile varied in demographic variables, a chi-square test showed that none of the demographic variables are statistically related to the clusters. The sample was comprised of students of a business school and therefore it may not be representative of all students studying business management. Second, since the sample comprised only 17 female students, generalization of results is difficult. The research holds relevance, as an assessment of prior exposure to technology and comfort level, attitude, behavior and motivation may determine the e-learners' readiness to adopt or not adopt this medium.

METHODS AND SAMPLES

The research followed exploratory research design which explores the role of e-learning and digital media resources in employability of management students in Chennai city. The primary data of the research was collected through survey method of data collection using self-developed questionnaire. The sampling unit was selected based on the management institutes which offers MBA programmes and also uses e-learning resources and digital learning resources for the delivering the management education. The survey was conducted among thirteen management schools, engineering colleges and Arts & Science colleges located in Chennai city which offers Master of Business Administration (MBA). From each management department or institute ten students were selected using stratified random sampling technique which forms the total sample size of 160.

Table 1. Scale Reliability Analysis Results

Sl. No	Scales	No. of items	Cronbach Alpha	Results
1	E-Learning Resources	10	0.825	Good
2	Digital Learning Resources	10	0.789	Acceptable
3	Employability of the management graduates	15	0.928	Excellent

The reliability and validity of the data collection instrument was tested through pilot study with the sample of 30 and it is found that it is reliable and valid. From the table 1, it is concluded that all the scales selected for the measurement is having adequate reliability.

ANALYSIS AND RESULTS

The primary data collected through the questionnaire was analyzed through descriptive and inferential statistical tools using IBM SPSS 20.0 and IBM AMOS 20.0 software.

Descriptive Statistical Analysis

The demographic profile of the respondents was analyzed through frequency analysis and presented in table 2.

Table 2. Demographic profile of the sampled management graduates

S. No	Demographic Factors	Frequency	Per cent
1	**Gender**		
	Male	79	60.77
	Female	51	39.23
2	**Category of the institution**		
	Business School	30	23.08
	Arts & Science college	30	23.07
	Engineering College	40	30.77
	Standalone Institution	30	23.08
3	**Under-graduation**		
	Science Degree (B.Sc)	10	7.69
	Arts Degree (B.A)	13	10.00
	Commerce Degree (B.Com)	40	30.77
	Engineering Degree (B.E/ B.Tech)	42	32.31
	Others (BBA/ Hotel Management, etc)	25	19.23
4	**Work Experience (If any)**		
	None	83	63.85
	Up to a year	23	17.68
	1 - 3 Years	19	14.62
	Above 3 Years	5	3.85
5	**Category of E-Learning and Digital Resources used**		
	E-learning communication and Soft skill software	57	43.85
	MOOC online courses	21	16.15
	Moodle courses	12	9.23
	NPTEL courses	23	17.69
	Educational Institute developed software	12	9.23
	Others	5	3.85
6	**Got placement in company**		
	Yes	74	56.92
	Under process (result not announced)	42	32.31
	No	14	10.77
7	**If No, why?**		
	Willing to pursue Higher Education C.A/ M.Phil/ Ph.D	6	42.86
	Willing to do family business / Own startups	4	28.57
	Looking for job in specific industry/ company	4	28.57
		14	100
	Total	**130**	**100.00**

Table 2 presents the demographic profile of the sampled management graduates.

- From the above table it is identified that majority (60.77%) of the sampled management graduates are male and rest (39.23%) are female. However, the proportion of female in post-graduation are significantly increasing in this decade including management education.
- It is also recognized that 30.77% of them are doing their MBA programme in engineering colleges, whereas 23.08% of them are doing in business schools, 23.07% of them are doing in arts & science colleges, and rest (23.08%) of them are doing in standalone institutions.

- With regards to the under graduation of the sampled management graduates 7.69% of them have completed their undergraduation in Science discipline, 10% of them in Arts and language related subjects, 30.77% of them in commerce disciplines, around one-third (32.31) of them engineering degrees, and rest (19.23) of them have completed B.B.A, Hotel management, LLB, etc.,
- The above table also presents their work experience before MBA programme, majority (63.85%) of them don't have any experience before their MBA programme, whereas 17.68% of them have upto 1 year experience, 14.62% of them have 1-3 years of work experience, and only 3.85% of them have more than 3 years of experience.
- The category of e-learning and digital resources their educational institutions adopted for sharpening the KSA of the management graduates are also tabulated in the above table which describes that 43.85% of them have used E-learning communication and Soft skill software , 17.69% of them have taken NPTEL courses, 16.15% of them have taken MOOC online courses, 9.23% of them have taken Moodle courses, 9.23% of them have used their own educational institute developed software, and rest (3.85%) of them have used some other e-learning software available in internet or in their educational institute at free of cost.
- With regards to the placement, majority (56.92%) of them have received offer letters through the campus placements or on their own initiatives, whereas 32.31% of them have attended campus placement interviews and awaiting for the results, and 10.77% of them yet to get placements in the company.
- Out of 14 candidates those who have not received offer letters, six of them are willing to pursue higher education, four of them are willing to do family business / Own startups, and rest of them are Looking for job in specific company/ industry.

Structural Equation Modeling

The structural equation modeling approach was used to explore the relationship between use of e-learning and digital media resources in management education and its impact on employability of management graduates.

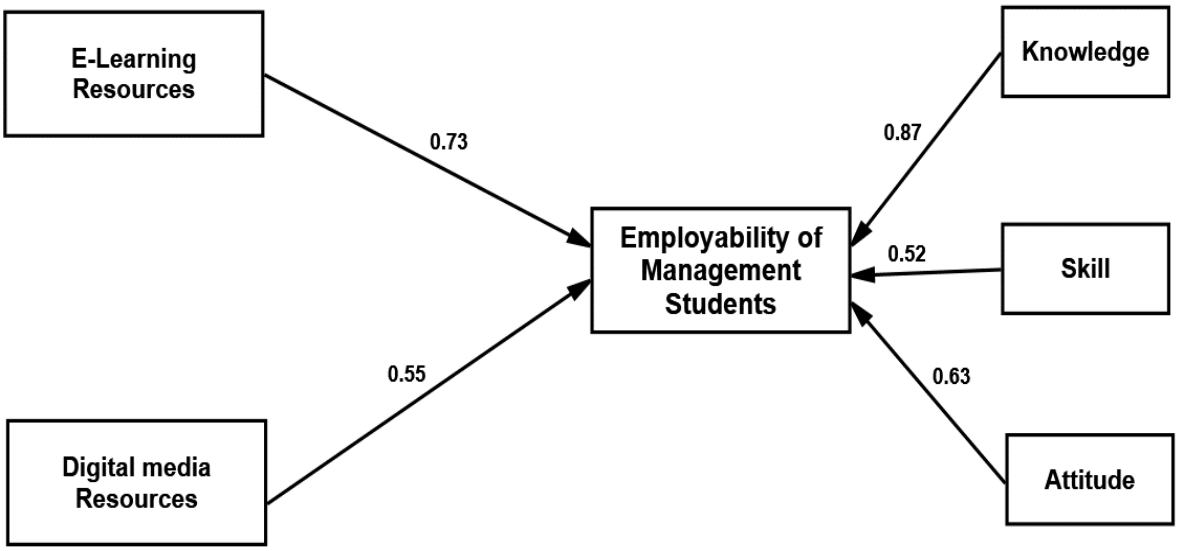

Figure 2. Conceptual Model with standardized regression coefficients**.**

Conceptual Model with standardized regression coefficients of the research is illustrated in figure 2, from which it is found that all the hypothetical relationship are having significant relationship at 1% significant level, therefore all the hypothesis (H_1, H_2, H_3, H_4 and H_5) mentioned in the conceptual model found to be significant at 1% level.

Table 3. SEM- Model Fit Summary

S.NO	Model Fitness Indices	Model Value	Suggested Values	Result
1	CMIN or Chi Square Value	0.213	P > 0.05 (Wheaton et al, 1977)	Good fit
	RMSEA (Root Mean Square Error of Approximation)	0.018	< 0.08 Browne and Cudeck (1993)	Good Fit
	GFI (Goodness of Fit Index))	0.915	> 0.90 Joreskog and Sorbom (1984)	Good fit
2	AGFI (adjusted Goodness of Fit Index)	0.929	> 0.90 Tanaka and Huba (1985)	Good fit
	CFI (Comparative Fit Index)	0.937	> 0.90 Bentler (1990)	Good fit
	TLI (Tucker-Lewis Index)	0.963	> 0.95 Bentler and Bonett (1980)	Good fit
	NFI (Normed Fit Index)	0.986	> 0.95 Bollen (1989)	Good fit
3	Chi-square / DF	3.568	2 to 5 Marsh and Hocevar (1985)	Good Fit
4	RMR (Root Mean Square Residuals)	0.026	< 0.08 (Hair et al. 2006)	Good Fit

(Source: Primary Data)

Table 3 condenses the model fit summary of the structural equation model developed based on the conceptual model. As presented in the above table all the model fitness indices of the developed SEM are at acceptable level, hence it can be concluded that the conceptual model is found to be appropriate fit. The results of Structural Equation Modeling (SEM) proved that the use of e-learning and digital resources are having significant positive impact on employability of the management students at Chennai city.

CONCLUSION

Use of technology in our day-to-day life is inevitable, similarly use of technology oriented products such as ICT tools, e-learning, and digital media resources in our education systems enhances the efficiency of the teaching-learning process and boost the KSA development of the students. From the present research, it is concluded that the use of e-learning and digital media resources in management education has significant positive impact in employability of management students through the development of appropriate KSAs required for the management profession.

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SUCCESS OF E-LEARNING SYSTEMS IN MANAGEMENT EDUCATION IN CHENNAI CITY – USING USER'S SATISFACTION APPROACH

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ABSTRACT
The learning is inevitable part in every individuals' life which enriches their knowledge, skill, and attitude and enhances their competencies and capabilities. The employability of an individual depends on their competencies and capabilities. The e-learning plays an important role in enhancing the employability of the individuals. The purpose of the research paper is to analyze the users' satisfaction towards e-learning systems in management education in Chennai city. The researcher contacted all engineering colleges, Arts & science colleges, Standalone institutions, and business schools located in Chennai city, Tamil Nadu state, India which offers Master of Business Administration (MBA) programme in their educational institutions and also implemented e-learning course to develop the communication skill, soft skill, quantitative aptitude, verbal reasoning, and subject knowledge. The research survey was conducted among 360 samples (i.e. 300 management students, and 60 faculty members). The data collection instrument has six critical dimensions such as learner, instructor, course, technology, design, and environment. The frequency analysis, mean, standard deviation, and confirmatory factor analysis was used to analyze the primary data of the research. The results of the research indicates that all the critical dimensions of e-learning such as learner, instructor, course, design, technology, and environment are having significant positive relationship on measuring success of e-learning systems used in selected management educational institutions located in Chennai city. It is also found that users' (management students and faculty) are having more than moderate level of satisfaction towards all the dimensions of critical dimensions of success of e-learning systems. **Keywords:** e-learning success, management education, user satisfaction, Chennai city, management institutions.

INTRODUCTION

The education sector in India faced tremendous changes in recent time because of technological transformation around the world. The evolution of Information, Communication, and Technology (ICT) based tools made learning interesting and real-time experience. The self-learning of any technology, concepts are at finger tips at reasonable cost. The ICT tools made possible customized learning at convenient time. The term 'e-learning' refers to learning through electronic networks with internet. The e-learning made possible of online learning, which connects the eminent academicians and learners from different parts of the world. Various industries around the globe utilizes e-learning to educate, train, and provide continuous education to their employees through customized e-learning systems. All different kinds of educational institutions utilizes e-learning systems to enhance the experience of learning process. The e-learning provides great contribution towards school education, technical education, management education, medical education, etc. Now-a-days, the management education significantly utilizes the e-learning systems in order to enhance the KSA (knowledge, skill, and attitude) of the students, which increases their employability in business industry. The eLearning prepares the management students according to the industry expectations. The success of e-learning is measured through four different approaches such as technology acceptance model approach, user satisfaction approach, e-learning quality approach, and DeLone and McLean model approach (Alsabawy et al., 2012). The user satisfaction approach is used in the research in order to examine the success of e-learning systems used in management education. The prime aim of this research paper is to analyze the users' satisfaction towards e-learning systems in management education in Chennai city.

THEORTICAL FOUNDATIONS

Learners' Characteristics

Learners' perspective is an important dimension of e-learning system which deals with their perceived benefits by adopting e-learning systems. E-learning has no worth without beginners using the e-learning systems. Students of this generation have made it more demanding for education is increasing use of e-learning. For example, with the rises in the need for education is approaching from female non-traditional students with grown children, full-time, work part-time, and part-time students that work full time.

Instructors' Characteristics
Another important dimension is Instructors' perception towards the effectiveness of e-learning systems. The learning outcome are always influenced by attitude the user has toward the technology, teaching styles, and control over technology. Preceding research studies established that an instructor's technology control along with providing sufficient time to interact with students influences learning results.

E-Learning Environment
Lennon & Maurer, 2003 stated that "E-learning atmosphere denotes to where students connects online resources, use systems to access the online prospectus and communication, obtain tutor assistance, and receive assessment". Constructs which are applicable for a positive e-learning atmosphere contain of social influence, learners' perceived interactions with others, diversity in assessment, and perceived autonomy support.

Institution and Service Quality
Service quality expressively effects customer satisfaction. It is evaluated with five major dimensions of SERVQUAL such as: tangibles, reliability, responsiveness, assurance, and empathy. Whereas accessibility of equipment, training and enough support provided are also the major issues for e-learning acceptance. Moreover service quality, contains administrative interest such as management, funding, maintenance, and the delivery of resources, and are absolutely connected to satisfaction of the learners'. Likewise flexibility with regards to the program and course have an optimistic effect on learners' satisfaction with any e-learning courses, particularly for learners those who has to manage the battle with time, work, and family.

Infrastructure and System Quality
Technology has an important role in delivering learning outcomes because learners interact more in e-learning environments than with traditional face to face instruction. System design facilitates formative interactions, controls organizational activities, and provides correct and sufficient information to reduce uncertainty. System quality has a strong positive effect on learners' satisfaction and directly affects user beliefs. Factors that are relevant for infrastructure and system quality include Internet quality, facilitating conditions, reliability, ease of use, system functionality, system interactivity, system response, and equipment accessibility.

Course and Information Quality
Meaningful educational experiences are brought by well-designed courses, curriculum, and learning materials facilitate to the learners. Information quality is well-defined as the accuracy, completeness, ease of understanding, the significance of online course materials, which is measured in relations of accuracy, timeliness, completeness, relevance, and consistency. Learning is a complex activity because in accumulation to teaching skills, curriculum and teaching resources impact the learning process establish that information quality has a robust positive effect with regards to learners' satisfaction.

REVIEW OF LITERATURE

Literatures related to users' satisfaction towards e-learning system

Shayan and Iscioglu (2017). Learning Management Systems (LMS) have played a significant role in education. The purpose of this study is to investigate the acceptance level of LMS amongst students of two Universities in Tehran, Payamnoor and Farhangian. The total number of participants was 200. This study was directed based on a quantitative research method and data collection from a questionnaire which was then interpreted according to accurate statistical procedures through SPSS software. Results show that most students, regardless their gender, age, and department were satisfied with the usage of Payamnoor and Farhangian LMSs. However, a student's grades seem to play a significant role regarding his or hers level of satisfaction from the LMS.

Dreheeb et al. (2016), in their paper focused on the system quality of e-learning. The e-learning system depends on the quality to be successful and the real success is sustained usage. The users of e-learning system will stop using such system if the quality is poor, where often the users reject the system unless they try it, where the intentions of continuing using the system are still weak. There are several attributes and functionalities that can have an impact on the use of e-learning based on user perspective, such as are usability, reliability and efficiency. These quality attributes are used to reflect the quality of the software product. The intended objective of this study is to develop an appropriate model for e-learning to satisfy the users from the side of using the e-learning system, where carried the

discussion of twenty-four model with thirty attributes. Finally, the result of this study adopted the process of structural equation model which indicated that the hypotheses have positive relations.

Esterhuyse et al. (2016), investigated the relationships between the metrics influencing intention to use and the satisfaction of using e-learning in companies. The results of a survey distributed amongst a South African software development company's customer base revealed that the 94 respondents have positive enjoyment and self-efficacy levels, and low computer anxiety levels. Correlation analysis revealed significant relationships between enjoyment and self-efficacy and between enjoyment and satisfaction. Companies should therefore ensure that users enjoy using e-learning as it can directly influence satisfaction and self-efficacy.

Norzaini and Redzuan (2016), conducted using the qualitative method to identify the learner satisfaction on the synchronous e-learning style and also to identify what are the issues and challenges that can be improved towards the implementation of successful synchronous e-learning. A model called E-Learner Satisfaction (ELS) model is introduced to design a tool for data collection and analysis. This study has identified the student's satisfaction level towards the usage of synchronous e-learning and also identified several issues that is linked to the weaknesses of the system and the challenges faced by students.

Cheung and Lee (2011), investigated antecedents and consequences of user satisfaction with an e-learning portal. Building on prior literature, the research model postulates a positive link between overall satisfaction and intention to continue to use an e-learning portal. Data collected from 504 undergraduate students are examined through the Structural Equation Modeling approach with Partial Least Squares (PLS). Empirical findings demonstrated that our research model provides a relatively high explanatory power. Moreover, all associated hypotheses are found to have statistically significance. The implications of this study are noteworthy for both researchers and practitioners.

Literatures related to success of e-learning system

Basak et al. (2016), presented a conceptual framework on the critical success factors of e-learning implementation in higher education, derived from an in-depth survey of literature review. The aim of this study was achieved by identifying critical success factors that affect for the successful implementation of e-learning. The findings help to articulate issues that are related to e-learning implementation in both formal and non-formal higher education and in this way contribute to the development of programs designed to address the relevant issues.

FitzPatrick (2012), in his article attempted to explore the key success factors of eLearning in Education. Technology has changed the way that we live our lives. Interaction across continents has become a forefront of everyday engagement. With ongoing enhancements of technology, people are now able to communicate and learn in a virtual environment similar to that of the real world interaction. These improvements are shared in the field of education, where eLearning is becoming less static and more socially interactive. However, even though technology enhancements are enabling us to be more eLearning successful, there is still an enormous amount of uncertainty in how to implement eLearning successful. This is particularly the case in education for secondary schools. There is an evident struggle for schools to successfully implement eLearning effectively. With this in mind, the goal of this paper is to outline a professional development model, created to evaluate and support eLearning in education.

Shangeerthana and Chandrasekar (2016), in their study provided an insight about the key factors that can be re-considered for implementing ELearning in any of the India based Corporates towards its success by overcoming the failures, which can be accomplished by means of setting light to Employee's Learning strategy (in other words, E-Learning:- Employees Learning in Corporate).

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Prougestaporn et al. (2015), in their paper summarized the key success factors to create effective e-learning for higher education study, and review the applicable criteria's to evaluate the effectiveness of e-learning for higher education. The methodology was to review the literatures, relevant previous studies, and survey from respondents include students and experts. The paper summarized that there were 4 key success factors to create effective e-learning for higher education study, and there were four main criteria's to evaluate the effectiveness of e-learning for higher education.

Chen and Edward (2008), in their paper explored the concepts and best practices of successful e-learning in corporations. It will first describe what e-learning is as well as its history in relation to educational models. A brief

introduction will cover the variety types of e-learning. The paper will then provide information on e-learning limitations such as various standards, lack of infrastructure and architecture, and at length discuss employee motivation and cultural resistance to e-learning. Organizational advantages and benefits of e-learning will be outlined. Some of them include cost savings on travel, globalization, improved value-chain activities, and return on investment. Finally the paper will present some success stories and discuss the future implications of e-learning in corporations.

Bhuasiri et al. (2012), identified the critical success factors that influence the acceptance of e-learning systems in developing countries. E-learning is a popular mode of delivering educational materials in higher education by universities throughout the world. This study identifies multiple factors that influence the success of eLearning systems from the literature and compares the relative importance among two stakeholder groups in developing countries, ICT experts and faculty. This study collected 76 usable responses using the Delphi method and Analytic Hierarchy Process (AHP) approach. The results reveal 6 dimensions and 20 critical success factors for e-learning systems in developing countries. Findings illustrate the importance of curriculum design for learning performance. Technology awareness, motivation, and changing learners' behavior are prerequisites for successful e-learning implementations. Several recommendations are provided to aid the implementation of e-learning systems for developing countries which have relevance for researchers and practitioners. Limitations as well as possible research directions are also discussed.

RESEARCH MODEL DEVELOPMENT

The researcher developed a research model to be tested through Confirmatory Factor Analysis using IBM AMOS 20.0 software based on the literature review summarized in the previous section of the research paper. The success of e-learning system used in the management educational institutions was verified through user satisfaction approach based on six important dimensions such as learner, instructor, course, technology, design, and environment. The research model of the present study is presented in figure 1.

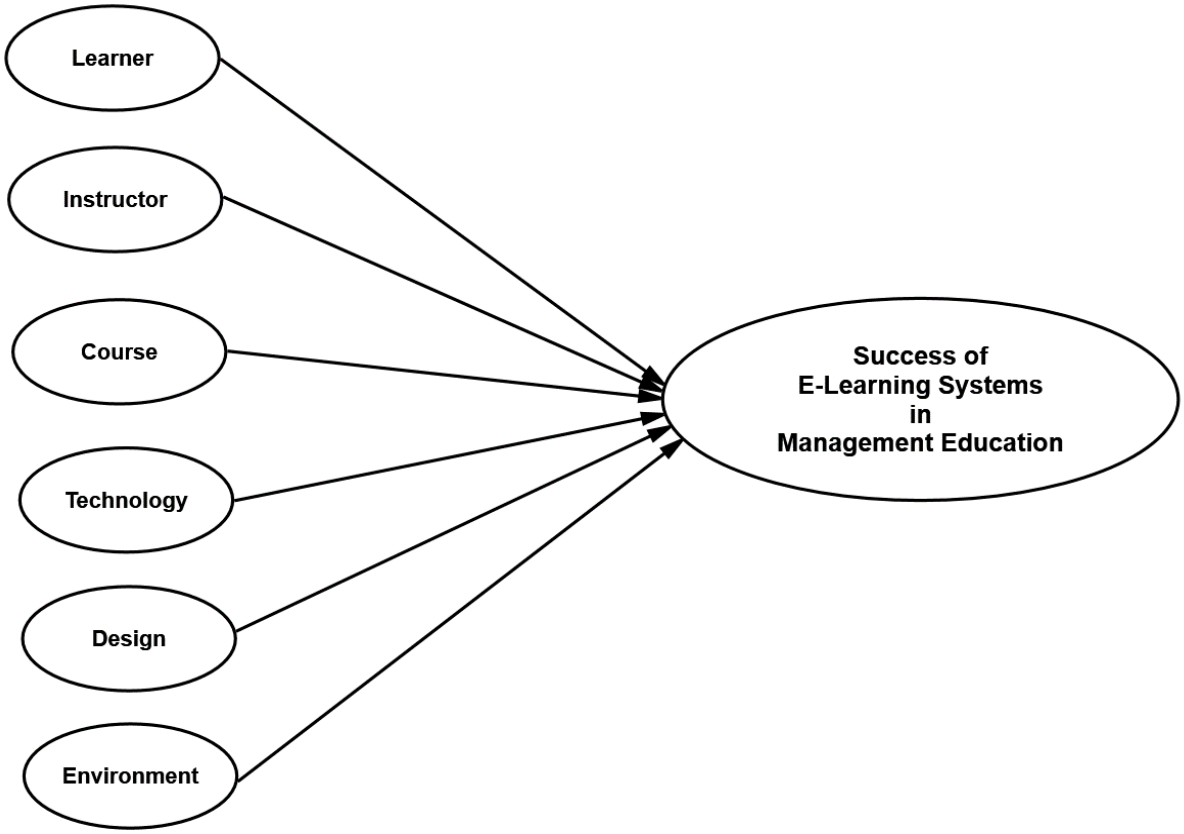

Figure 1. Research Model

RESEARCH METHODOLOGY

Research Design

The research followed exploratory research design in order to explore the success of e-learning systems in management education in Chennai city using users' satisfaction approach.

Data type and Data collection method

The primary data of the research was collected through self-administered questionnaire using survey data collection method, whereas the secondary data of the research was collected from print media (i.e. newspaper, books, magazines, and print journals) and internet media (e-books, web portals, e-journals). The primary data of the research is useful in examining the user satisfaction towards e-learning systems adopted in their management educational institutions. If the users are more satisfied which means it fulfills their expectations and requirements so the e-learning systems adopted in their management educational institution is successful. The secondary data was very useful in identifying the constructs, factors, and items used in earlier researches in various industries and educational domains..

Scale Development

The data collection instrument of the survey was designed based on Sun et al. (2008) which has six critical six dimensions such as learner (5 items), instructor (5 items), course (5 items), technology (5 items), design (5 items), and environment (5 items). The questionnaire has totally 38 items including eight demographic profile questions. The personal questions are of open-ended (name), close-ended questions (all other questions) measured through nominal and ordinal questions. The main dimensions of the questionnaire were measured through Likerts' five point satisfaction scale from 1- Highly Dissatisfied, 2- Dissatisfied, 3-Neutral, 4-Satisfied, and 5-Highly Satisfied. Two sets of questionnaire, one for faculty and another one for students with similar kind of questions are designed for data collection.

Sample and Procedure

The researcher contacted all engineering colleges, Arts & science colleges, Standalone institutions, and business schools located in Chennai city, Tamil Nadu state, India which offers Master of Business Administration (MBA) programme in their educational institutions and also implemented e-learning course to develop the communication skill, soft skill, quantitative aptitude, verbal reasoning, and subject knowledge. However, among the educational institutions contacted 50 institutions contacted only 15 institutes accepted for survey, from each institute 10 first year (II Semester), 10 second year (IV semester) MBA students, four faculty members were included for the survey which leads to the sample of management students (300 samples), and faculty (60 samples), with the total sample size of 360. The stratified random sampling technique was adopted to select the samples from the population.

Pilot study

The preliminary study was conducted among thirty five samples (25 students and 5 faculty members). Based on the data collected reliability of the questionnaire was found through split-half method using IBM SPSS 22.0 software. The table 1 presents the reliability Cronbach alpha coefficients of all the six factors used in the study.

Table 1. Success of E-learning Systems - Reliability Analysis Results

S. No	Factors	No. of Items	Chronbach Alpha
1	Learner	5	0.747
2	Instructor	5	0.864
3	Course	5	0.764
4	Technology	5	0.959
5	Design	5	0.853
6	Environment	5	0.877
7	Success of E-Learning Systems	30	0.839

From the above table 1, it is identified that all the factors of success of e-learning system are having Chronbach alpha coefficients more than 0.7 (Hair et al., 2010), which means that all the factors are reliable.

RESULTS AND DISCUSSION

This section of the research paper is divided in to three sub-sections namely demographic profile of the respondents, descriptive statistics, and Confirmatory Factor Analysis (CFA) of the research model. The results of both the section are discussed with table and interpretation.

Profile of the Sampled Users

The demographic profile of the sampled users which includes management students and faculty are summarized in table 2.

Table 2. Profile of sampled Users

S. No	Demographic Variables	Students		Faculty	
		Frequency	Percent	Frequency	Percent
1	**Gender**				
	Male	162	54.0	37	61.7
	Female	138	46.0	23	38.3
2	**Age Group**				
	20 – 25 Years	294	98.0	8	13.3
	25 - 35 Years	6	2.0	30	50.0
	35 - 45 Years	-	-	12	20.0
	Above 45 years	-	-	10	16.7
3	**Qualification**				
	Undergraduate	293	97.7	-	-
	Postgraduate	7	2.3	43	71.7
	Doctorate	-	-	17	28.3
4	**Computer Proficiency**				
	Basic	57	19.0	12	20.0
	Intermediate	217	72.3	31	51.7
	Advanced	26	8.7	17	28.3
5	**Designation**				
	Student	300	100.0	-	-
	Assistant Professor	-	-	42	70.0
	Associate professor	-	-	10	16.7
	Professor	-	-	8	13.3
6	**Work Experience**				
	Fresher	291	97.0	-	-
	Upto 1 Year	6	2.0	4	6.7

	1 - 3 Years	3	1.0	12	20.0
	3- 6 Years	-	0.0	27	45.0
	Above 6 Years	-	0.0	17	28.3
7	**Overall satisfaction to E-learning systems implemented in Management Educational Institutes**				
	Highly Dissatisfied	5	1.7	2	3.3
	Dissatisfied	2	0.7	1	1.7
	Neither dissatisfied Nor Satisfied	13	4.3	4	6.7
	Satisfied	125	41.7	21	35.0
	Highly Satisfied	155	51.7	32	53.3
	Total	**300**	**100.0**	**60**	**100.0**

From the analysis, it is found that out of 300 management students 54% of them are male and rest of them are female. Out of 65 management faculty surveyed, majority (61.7%) of them are males and remaining of them are females. The study reflects that 98% of the respondent from student categories fall under the age group of 20-25 years, while 50% of the faculty those who were surveyed belong to the age group of 25-35 years. With regards to the qualification 97.7% of the students have completed their degree and 71.7% of the faculty have their academic qualification as post graduate.

It is also found form the study that 72.3% of the students had their computer knowledge in Intermediate level and 51.7% of the management faculty are also having Intermediate level knowledge in computer usage. Majority of the users taken for survey are students and 70% of the respondent were having their designation as Assistant Professor and 45% of the faculty had a work experience of 3-6 years. It is also inferred from the study that 51.7% of the students and 53.3% of the faculty were highly satisfied with e-learning systems in management education in Chennai city

Descriptive Statistics

Descriptive statistical tools describe the users' satisfaction towards various dimensions of success of e-learning systems with mean and standard deviation through the table 3.

Table 3. Success of E-learning Systems – Descriptive Statistics Results

S. No	Factors	Mean	Standard Deviation
1	Learner	4.03	0.134
2	Instructor	3.97	0.267
3	Course	4.11	0.735
4	Technology	3.81	1.357
5	Design	4.24	1.683
6	Environment	3.67	1.834
7	Success of E-Learning Systems	23.83	2.468

The mean score of all the six dimensions of success of e-learning systems ranges between 3.67 and 4.24. The users conveyed highest satisfaction towards design of the e-learning system (4.24) and least satisfaction towards the environment of the e-learning systems (3.67), however the users of e-learning systems have exhibited more than moderate level of satisfaction towards all the critical dimensions of e-learning systems. The overall score of e-learning systems is found to be 23.83. The standard deviation of the dimensions depicts the variance among the users in their perception towards selected dimensions of Success of E-Learning Systems.

Confirmatory Factor Analysis (CFA)

The research model to be tested is developed using IBM AMOS 20.0 software. The researcher developed second-order CFA by considering the factors of the research has observed variables using Average scores of all the relevant items. After connecting data sources to the research model, the CFA of the research was analyzed. The Figure 2 illustrates the CFA of success of e-learning systems implemented in management educational institutions using users' satisfaction approach.

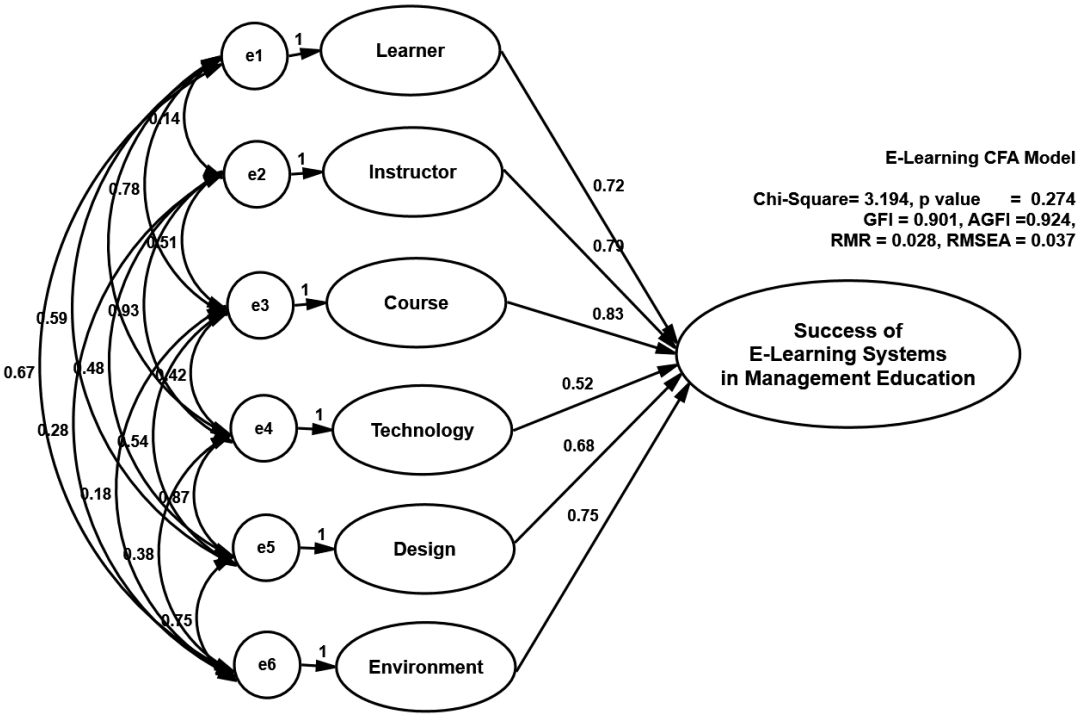

Figure 2. Confirmatory Factor Analysis

The results of the confirmatory factor analysis indicates that all the six critical dimensions of success of e-learning systems are having significant positive factor loading with more than 0.5, which indicates that all the factors are having significant influence on success of e-learning systems and all these relationships are significant at 1% level. The confirmatory factor analysis of the given research model also confirms convergent validity of the questionnaire. The model fitness indices of the research model indicates that all the indices shown in the model are having the values in the recommended range.

CONCLUSION

The e-learning supplements even sometimes complements the management education through appropriate design, develop, and delivery of the course related to the management education. Based on the results of the study, it is concluded that all the critical dimensions of e-learning such as learner, instructor, course, design, technology, and environment are having significant positive relationship on measuring success of e-learning systems used in selected management educational institutions located in Chennai city. It is also found that users' (management students and faculty) are having more than moderate level of satisfaction towards all the dimensions of critical dimensions of success of e-learning systems. Through this research paper, it is recommended to the policy makers and educational e-learning course developers that the exhaustive research on user satisfaction on e-learning systems with all possible dimensions of e-learning systems may uncover the true picture on success and effectiveness of e-learning systems in acquiring required KSA by the students which enhances their employability.

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THE ROLE OF QUALITY FACTORS ON LEARNING MANAGEMENT SYSTEMS ADOPTION FROM INSTRUCTORS' PERSPECTIVES

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ABSTRACT
learning management systems have been largely used in universities for teaching, student learning, curriculum, and staff development. However, just providing higher education institutions with a learning management system does not guarantee a success. Quality assurance of these systems has become a central concern for practitioners, researchers, and system providers. In this context, this empirical research investigates quality factors that can contribute to learning management system adoption. In addition, the study developed a research model based on TAM and information systems success model by integrating associated quality indicators inclusive of system quality, service quality, information quality, and instructor quality. Quantitative data using questionnaire gathered from 365 lecturers in Palestine universities were inspected to evaluate the influence of various constructs on lecturers' adoption of learning management systems using structural equation modeling analysis technique. The research findings show that information quality, system quality, service quality, and instructors' quality can contribute to e-learning management system adoption with regards to their beliefs. This Research contributes positively to the limited literature on assessing the quality predictors of learning management system adoption.

INTRODUCTION

In the past decade, a major transformation took place in the way computers have been utilized in educational applications. It has branched out as a direct effect of the increase in computer usage in the educational field. In this evolution, e-learning has been recognized as an optimal method for contemporary teaching tools using the latest technology (Ma et al., 2008). As a result of the huge growth in students and trainees numbers, the development of e-learning has become an essential tool in providing information to many students and trainees simultaneously (Yakubu & Dasuki, 2018). Following said advancements in information communication technology (ICT), most organizations struggled to keep up to innovate new methods in adapting to the new technology, as opposed to traditional methods which have been established for years (Odunaike et al., 2013). With regards to education, ICT has made extensive learning mediums and tools for supporting and solving problems in many countries (Abdullah & Toycan, 2017; Bhrommalee, 2011).

Many developments have been formed on the educational technologies by which universities worldwide are constantly struggling to provide quality education to learners and instructors. Higher education institutions (HEI) worldwide have progressively adopted e-learning management systems for curriculum and learners, training, and teaching development. Nevertheless, just providing higher education institutions with a learning management system (LMS) does not guarantee a success (Cheng, 2012; Wirawan et al., 2018). Quality education in Palestinian HEI is the main priority of top management and decision makers (Shaqour, 2014). Quality assurance of e-learning management systems in educational organizations have gradually become a central issue for practitioners, experts, researchers, and system providers (Wirawan et al., 2018). literature shows that several research studies have concentrated on numerous sorts of factors for identifying instructors' adoption of LMS such as social factors, individual factors and organizational factors with partial attention upon the quality antecedents of instructors' adoption of LMS, as it is a significant part for higher education institutions if they are to assess the system to handle learning and teaching difficulties. Consequently, there is a need for extra additional investigations to empirically test quality variables impacting the instructors' adoption of e-learning management systems to achieve improvement in learning outcomes. Therefore, the key objective of the research is to examine whether quality factors can affect instructors' intention to adopt the LMS.

Accordingly, the researchers developed a model to inspect quality antecedents for instructors' adoption of LMS in HEI in Palestine.

Literature Review

learning Management Systems (LMS)

Universities worldwide are investing largely in numerous LMSs to provide e-Learning services (Caputi & Garrido, 2015). Based on Laster (2010), LMS is a self-contained web page with embedded educational tools that allow users to establish academic content and involve learners in teaching and learning process. The goal of LMS usage is to manage users by monitoring their improvement and progress (Kim & Do, 2016). LMS offers means for the learners to produce and convey content, keep track of users' contribution and to measure users' performance online beyond the limitation of time and place. The purpose of adopting LMS isn't just to enhance education efficiency and productivity (Siang & Santoso, 2015), but also to offer a different method of teaching. The continuous pressure to cut costs, and the substantial massive efforts that are presented by HEI to raise enrollment rates by providing flexible agendas that suited diverse users' requirements, have correspondingly encouraged the necessity for HEI to adopt LMS (Al-alak & Alnawas, 2011). It is considered that LMS would permit students and instructors at universities to acquire their learning in parallel in pursuing their individual needs and keeping their own professions, with no need to attend classes and be exposed to fixed schedules (Borstorff & Lowe, 2007).

Because of the growth of internet bandwidth and the progress of information technology (IT), LMS become able of combining diverse sorts of media such as video, graphics, audio, and text. Real-time tools have been embedded into LMS such as online chat and assessment to allow online education (Waterhouse, 2005). As a result, LMS is becoming gradually integrated into part of HEI. Since LMS has a significant part in education enhancements, several HEI has implemented them. Various HEIs are now resorting to LMS as learning and teaching tools for enhancing authentic e-learning (Al-Gahtani, 2014).

Technology Acceptance Model (TAM)

Adopted from the theory of reasoned action, Davis (1989) developed TAM, which is specifically meant to clarify computer usage behavior. Technology acceptance model aims at providing justification of the causes of technology adoption in general as well as a foundation for tracing the impact of external variables on individual beliefs, attitude, and intentions. Based on Lee et al., (2004), while many research studies on the use of information technology adopt different research frameworks, TAM of all models is considered the utmost acknowledged and frequently adopted a model for predicting usage of information technology.

IS researchers used TAM for three main reasons. First, it has a robust basis in theory. Venkatesh and Davis (2000) mentioned that a considerable amount of empirical and theoretical studies has accomplished in favor of TAM. Then, it can be considered as a standard to build effective applications. Finally, for the past decade, a stream of research studies supported the strength of the model in various situations, populations and a broad variety of information technology applications. TAM points that perceived usefulness (PU) and perceived ease of use (PEOU) influence computer user's intention and actual computer usage behavior. According to Davis (1989), PU is defined as "the degree to which a person believes that using a particular system would enhance his/her job performance". Meanwhile, the PEOU refers to "the degree to which a person believes that using a particular system would be free from efforts". While the technology acceptance model effectively anticipates some features of IT adoption and usage, weaknesses still exist. TAM as a standalone model is inadequate to completely predict the association amongst IT and acceptable behavior of its users since the model only cover two main variables (PU and PEOU). TAM main concepts do not entirely imitate the exact effect of social, individual and system variables that may influence the adoption of LMS.

Information System Success Model (DeLone and McLean IS Success Model)

An extensive assessment of information system previous literature conducted by DeLone and McLean (1992) to develop a widely accepted and cited IS success model. This model contains six IS success dimensions namely, organizational dimension, individual dimension, user satisfaction, use, information and system quality. These categories of success are interconnected rather than independent. The model offers a structure for categorizing the plenty of IS success variables that have been discussed in the literature and it recommends fundamental interdependencies among the variables (McGill et al., 2003).

DeLone and McLean (2003) again introduced an updated model of IS success, the new model included six variables, including three technological quality factors (service quality, information quality, and system quality), intention to use/use, user satisfaction and benefits. In their model, "net benefit" is the benefit gained from the adoption of the specific e-learning system (Wang & Wang, 2009).

Research model

IS success model and the TAM model has a main contribution over the development of the proposed research model of this study. The proposed model covers four kinds of quality variables and dimensions namely, instructors quality (attitude toward the system), system quality, information quality, and service quality (see figure 1).

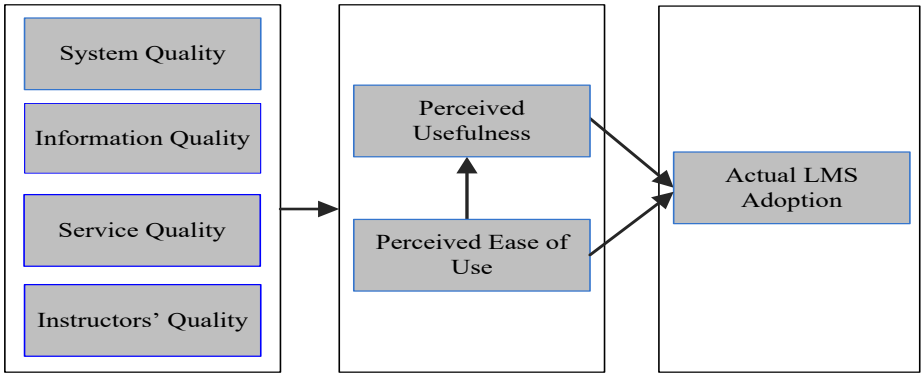

Figure 1. The basic proposed research model

VARIABLES IDENTIFICATION AND HYPOTHESES FORMULATION

Perceived Usefulness (PU), Perceived Ease of Use (PEOU) and Actual Adoption

PU is proposed to have a direct impact on actual system use because instructors become more enthusiastic to accept specific LMS if it is deemed beneficial. On the other hand, comprehensive literature over the past decades has given indications that PEOU directly or indirectly has an important influence on actual system adoption (Saadé & Bahli, 2005). The easier it is for an instructor to communicate with the LMS, the more probably he/she will notice it is helpful and accept it. Ong and Lai (2006) stated that PU influences individuals' interest in information system adoption due to the use value of system adoption on individual and organizations. In their study, Chang and Tung (2008) determined that when instructors find LMS as a useful tool, they were more likely to adopt it. At the same time, PU in terms of "better control over work, improve effectiveness, job efficiency, time-saving, educational performance" will impact their motivation and behavior to accept and use LMS.

On the other hand, Porter and Donthu (2006) hypothesized that when instructors perceive that LMS is difficult to use and there is a risk associated with learning new technology, they will reject the new system. Wang et al., (2003) and Amin (2009) reported that individual behavioral intention to perform a task is mainly influenced by PEOU. Ong and Lai (2006) found that PEOU had a substantial effect on users' intention to accept LMS. Accordingly, PEOU in the context of e-learning "less mental effort, less frustrating, flexible, less rigid, easy to understand, helpful guidance in performing tasks" may affect Palestinian instructors' willingness to accept LMS. In this context, the research model suggests that higher level of PEOU and PU of LMS will enhance an instructor's performance and acceptance. Hence, the next hypotheses are derived:

H1. "PEOU has a positive effect on the PU of LMS".
H2. "PEOU has a positive effect on the LMS adoption".
H3. "PU has a positive effect on the actual LMS adoption".

Attitude toward system

Davis et al., (1989) defined attitude toward system as "the degree to which the individual is interested in specific systems, which has a direct effect on the intention to use as well as actual use of those systems". Extensive

empirical researches approved that attitude toward systems is an important indicator of individual intention to adopt e-learning systems (Venkatesh et al., 2003a). Liaw (2008) added that no matter how advanced an information system is, its actual adoption relies on users having a positive attitude toward the system. Therefore, it is expected that users will have a greater intention to accept and adopt LMS once they have a positive attitude toward the system. In line with Sam et al., (2005), attitude toward system is one of the important variables affecting instructors' adoption of new. That is, in accepting a new information system, instructors' attitude seems to have the more vital part than their technical abilities. The diversity in users' behavior in accepting or not accepting LMS in higher educational institutions seems to be decided by the differences in their attitude toward those systems.

In general, instructors seem to have a moderately positive attitude toward LMS, but at the same time, they seem to have a moderately negative attitude on their own abilities in using such systems (Valentine, 2002). Badu-Nyarko (2006) mentioned that one of the reasons teachers in many universities prefer the traditional ways of teaching is because their attitude that obstructs change in their teaching methods. Based on Sharma and Chandel (2013), attitude toward system influence the acceptance of the e-learning systems through PU. Similarly, researchers like Al-Busaidi and Al-Shih (2010), Cheng (2012) and Adewole-Odeshi (2014) have mentioned that attitude toward the system has a strong relationship with PEOU, PU and system use. Based on this justification, it is hypothesized that:

H4. "Attitude toward LMS has a positive effect on the PU of LMS".
H5. "Attitude toward LMS has a positive effect on the PEOU of LMS".
H6. "Attitude toward LMS has a positive effect on the actual adoption of LMS".

System Quality

DeLone and McLean (1992) defined system quality as "the quality and functionality of an IS itself". It indicates the accessibility, responsiveness, reliability, flexibility, efficiency, and convenience of the information system (Kim et al., 2008). Eventually, good system quality will produce a convenient usage situation where individuals can professionally classify practical functions of the information system and efficiently navigate the resources that the information system delivers. System quality, in general, proved to have positive effects on the total adoption and acceptance of LMS (Kim et al., 2008; Thomas & Stratton, 2006; Wang & Wang, 2009). Igbaria et al., (1995) found in their research that system quality plays an important role as a determinant of LMS success adoption and indirectly influenced computer usage through PU and PEOU. Systems with better quality are expected to be accepted more than those of lower quality.

The main features and measures of system quality in the context of e-learning systems contain system functionality/accessibility, system interactivity, system response, and user-interface design (Cheng, 2012; Liu et al., 2010). System functionality defined as "the perceived ability of an e-learning system to provide flexible access to instructional and assessment media anytime and anywhere" (Pituch & Lee, 2006). Cho et al., (2009) highlighted that system functionality can certainly influence PU and PEOU. LMS permit instructors and users control over their teaching activities and it proposes more flexibility in learning with regards to place and time allowing therefore for better remote access to program content, instructors then recognize that the system is easier to use. System interactivity is one of the variables that influence instructors' acceptance of e-learning systems (Abbad, 2010). System interactivity refers to the "interactions between instructors and learners, and among instructors themselves, it also includes the collaboration in learning that results from these interactions" (Cheng, 2012). If instructors feel that the interactions among themselves and with learners via the learning management system are bi-directional, they consider the LMS is useful (Lee et al., 2009; Paechter et al., 2010). Essentially, instructors who perceive that LMS permits for more efficient interactions between instructors and learners also feel that LMS is an easy-to-use technology (Pituch & Lee, 2006).

System response is described as "the degree to which an instructor perceives that the response from the e-learning system is fast, consistent and reasonable" (Bailey & Pearson, 1983; Cheng, 2012). When instructors feel that there is a fast, consistent and reasonable response from the LMS, the system response will be perceived as useful among instructors (Pituch & Lee, 2006). Hypothetically, the LMS must be able to facilitate timely responses to users' queries. If instructors feel that the LMS can give them a timely and reasonable response, they will feel that the system is easier to use (Pituch & Lee, 2006). Furthermore, user-interface design refers to "the perception of the structural design of an interface that presents the features and instructional support of an IS" (Cho et al., 2009). The quality of user-interface design is central concern in determining the level of users' enjoyment, as well as their PU and PEOU (Cyr et al., 2006). The clearer the computerized instruction and good menu design with control toolbars will make instructors feel that such LMS is useful because of its user-friendly

functionality (Cheng, 2012; Cho et al., 2009). If the self-paced LMS screen design has a decent structure and its instructions are clear, instructors will navigate the contents and find information in an easy way and they feel that such LMS is easy to use a tool (Cho et al., 2009). This research concludes that LMS interface design largely influences acceptance and success of LMS. Therefore, the research hypotheses that:

H7. "System quality has a positive effect on the PU of LMS".
H8. "System quality has a positive effect on the PEOU of LMS".
H9. "System quality has a positive effect on instructors' actual adoption of LMS".

Information quality

Delon and McLean (1992) described information quality construct of LMS as "the degree to which the instructors' teaching performance is enhanced because of the use of the information acquired from or through such systems". Similarly, Wang and Wang (2009) defined is as "the quality of the output from a web-based learning system". It highlights the goodness of contents and forms that the LMS produces. Its measurement contains variables like consistency, scope, relevance, efficiency, currency, completeness, accuracy and timeliness of information and it includes also the course quality and course flexibility (DeLone & McLean, 1992; Tella, 2013). As reported by Ahn et al., (2007) and Chen (2010), information quality has significant positive impacts on the use and success of LMS.

Essentially, LMS tools have gained the attention of instructors because of the richness of contents delivered by the LMS via the internet (Lee, 2006). In comparison with traditional learning methods, relevant, accurate, updated, and rich course contents delivered by LMS may cause instructors to perceive that the system can be a valuable and beneficial way of teaching (Lee et al., 2009). when the online LMS content can be organized and combined with decent figures and apparent text, as a result, the content will be easy for instructors to accept the LMS instructions (Leflore, 2000). Besides, LMS that offers instructors the precise and reliable contents will make them perceive that using the system is easy and useful (Lee et al., 2009). Besides, if instructors consider the content given by the LMS as useful and meet their demands, this will make them confident in adopting the system (Choi et al., 2007). Based on Wang and Wang (2009) Information quality as an IS quality factor directly influence instructors' adoption of LMS and indirectly via PEOU and PU. Hence, the following hypotheses are proposed:

H10. "Information quality has a positive effect on instructors' PU of LMS".
H11. "Information quality has a positive effect on instructors' PEOU of LMS".
H12. "Information quality has a positive effect on instructors' actual adoption of LMS".

Service quality

Kim et al., (2008) defined service quality as "the overall support provided by the service provider, such as the ICT department, or a specific unit in an organization". It can also be outsourced services, and it refers also to the existence of different communication channels for timely helping instructors in solving LMS raising problems (Cheng, 2012). IS support services may include but not limited to help desks, hotlines and other online support services (Ngai et al., 2007). Much empirical research has also found that service quality provided by information services department staff is crucial to the acceptance of IS applications (Kim et al., 2008; Ngai et al., 2007; Wu et al., 2007). Roca et al., (2006) evaluated service quality by indicators associated with empathy, reliability, and responsiveness. However, this study considers the technical support as a main indicator of the service quality dimension. Lee (2010b) stated that the construct of service quality might be perceived as a crucial part in mapping instructors' behavioral attitude toward LMS adoption. Essentially, service quality will make instructors feel that LMS is an easy-to-use tool (Cho et al., 2009) when universities can provide them with adequate resources inclusive of trained service coordinators and skilled technicians (Lee, 2010a). Accordingly, sufficient and efficient technical support, good service quality, readiness of training tools has a direct influence on LMS PEOU and PU (Motaghian et al., 2013; Condie & Livingston, 2007; Franklin, 2007). So, the study proposed:

H13. "Service quality has a positive effect on the PU of LMS".
H14. "Service quality has a positive effect on the PEOU of LMS".
H15. "Service quality has a positive effect on instructors' adoption of LMS".

Methodology

Sample and Sampling Design

In this research, the sampling method used is stratified random sampling (Kalton, 1983). In stratified sampling, the population is divided into units or groups, called strata which should be as representative as possible for the population. Randomly selected individuals are taken from all the strata.

An acknowledged ratio of sample size in structural equation modeling is N: p = 5:1 (Kline, 2011). A ratio of five responses per parameter is required to obtain a trustworthy estimation. With a total of 34 elements, the effective sample size required to test the trustworthiness of the model would be 170. However, a sample of 370 was collected from the selected universities.

Survey Instrument

The self-administered survey questionnaire is developed to obtain the perceptions of university instructors in Palestinian HEI employing e-learning systems as part of their learning. According to Alreck and Settle (1995), the aim of the survey instrument is to translate the information needs of the researcher into a form that will extract data from respondents. To meet this objective, a questionnaire is developed as the research instrument.

Measures

In this study, responses to the items in service quality, system quality, information quality, instructor attitude towards e-learners, perceived usefulness (PU), perceived ease of use (PEOU), and system adoption was measured on a five-point Likert scale from 1 "strongly disagree") to 5 "strongly agree") with 3 labeled as neutral. Items chose for the constructs in this study were adapted and revised from previous research. The final items are listed in Table I along with their sources.

Table 1. Construct measurement and sources

Construct	Item	Questionnaire Items	Source
Perceived Usefulness	PU1 PU2 PU3 PU4 PU5 PU6	"Using LMS improves my teaching performance". "Using LMS improves my working efficiency". "LMS can help students enhance their learning effectiveness". "Using LMS saves time". "The use of LMS gives more teaching options". "Overall, I find LMS to be useful in my teaching activities".	Davis (1989).
Perceived ease of Use	PEOU1 PEOU2 PEOU3 PEOU4 PEOU5 PEOU6	"It is easy to integrate the functions of LMS with my teaching plan". "It is easy for me to become skilled at using LMS". "I find it easy to get LMS to do what I want it to do corresponding to the ways I teach". "It is easy to understand how to perform tasks using LMS". "It is easy to recover from error encountered while using LMS". "In general, LMS is easy to use".	Davis (1989).
Actual Adoption	AU1 AU2	"I will use LMS to perform teaching-related activities and to communicate with my students". "I will increase my use of the LMS in the future".	Ngai et al., (2007).
Attitude toward System	ATT1 ATT2 ATT3	"Using LMS for course instruction is a good idea". "Using LMS for course instruction is beneficial and convenient". "LMS provides an attractive learning environment".	Ngai et al, (2007) Shih (2008)
Information Quality	IQ1 IQ2 IQ3 IQ4 IQ5	"LMS can provide me accurate information". "LMS can provide me with sufficient information to do my tasks". "LMS can provide the precise information I need". "I am satisfied with the accuracy of LMS". "LMS can provide updated information regarding my tasks".	Rai et al., (2002) Negash et al., (2003).
Service Quality	SEQ1 SEQ2 SEQ3	"Training on the operation of LMS is sufficient". "Employees of the information service department have sufficient professional knowledge". "I can communicate with the technicians through multiple channels when I encounter technical problems and require quick responses".	Ngai et al., (2007)

	SEQ4	"Employees of the information service department can quickly fix my technical problems".	
	SEQ5	"The training provided can enhance my ability to use LMS".	
	SEQ6	"In general, the university provides enough support to help using LMS".	
System Quality	SQ1	"LMS has a well-designed user interface".	Pituch & Lee (2006) Cho et al., (2009)
	SQ2	"LMS allows me to control over my teaching activities".	
	SQ3	"LMS offers flexibility as to time and place of use".	
	SQ4	"LMS provides functions I need to do my teaching activities".	
	SQ5	"LMS language and means of communication are effective".	
	SQ6	"I can easily access LMS anytime I need to use it".	

Data analysis

The data analysis for this study is divided into two stages. In the first stage, preliminary data analysis was performed with the help of SPSS version, 23. Findings generated at this stage of analysis provided the general picture of the respondent's demographic statistics and their response to the survey instrument. In the second stage, the evolution of structured model using SEM technique was employed with the help of AMOS version 23.0. At this stage, interrelationships between multiple independent and dependent variables were examined to test the proposed hypothetical framework developed in chapter 3. In addition to this, both the measurement model and structural model analysis techniques were employed to identify the level of significance of various factors affecting the acceptance of LMS.

Results

Respondent Demographic Profile

The first part of the questionnaire sought the following demographic and background information of the respondents (gender, age, academic experience, academic rank, faculty, and department) (Table 2).

Table 2. Demography Statistics of Respondents

Variable	Item	Frequency (N= 370)	Percentage (%)
Gender	Male	276	74.4
	Female	94	25.4
Age Group	> 30	34	9.2
	30-40	135	36.5
	41-45	128	34.6
	<50	73	19.7
Teaching experience	> 5	75	20.3
	6-10	125	33.8
	11-15	88	23.8
	<16	82	22.2
Academic Rank	Master	132	35.7
	Assist. Prof	181	48.9
	Assoc. Prof	36	9.7
	Prof	11	3.3
	Others	10	2.7
University	Al-Quds University	70	18.9
	An-Najah University	73	19.7
	Bethlehem University	54	14.6
	Birzeit University	64	17.3
	Hebron University	57	15.4
	Palestine Polytechnic University	52	14.1

Results of the demographical characteristics of respondents demonstrated that the 74.6% of respondents were male while remaining 25.4% were female. This is almost close to the pattern of gender composition of faculty members in Palestinian universities. Based on Palestinian Ministry of HE, despite being most of higher education students, women are not well represented amongst the ranks of academic staff. Female faculty

employed on a full-time basis constitutes just fewer than 16 percent of the total in traditional universities and only 17 percent overall. All over the HEI, women make just 18 percent of full-time teaching staff and almost the same share of part-time staff. This result is almost like the findings of Al-Sayyed and Abdalhaq (2016) who found that male constitute 83% of lecturers in Palestinian universities.

A result for age and academic position indicates that almost half of the participants are assistant professors (48.9%). Two likely reasons for this distribution patterns are the promotion procedures, which often results in the delay of faculty members' promotion in most of the universities. It is likely that many faculty members were not satisfied with the promotion procedure in their universities. The other reason is the inability of some faculty members to meet the requirements of promotion, which could be associated with the first reason. Similarly, Al-Sayyed and Abdalhaq (2016) findings indicated that assistant professor lecturers constitute more than 40% which may suggest that bulk of academic staffers in state-owned universities are junior lecturers. Furthermore, the highest percentage of participants is coming from An-Najah National University. This result is expected; because An-Najah is the largest Palestinian University in term of the number of lecturers and students according to the Ministry of Education and Higher Education. However, regarding age distribution, results show that the average age of the respondents is around 40 years, which implies that faculty members are in their mid-age.

Structural Equation Modelling (SEM) Analysis

SEM is a statistical modeling technique designed to test conceptual or theoretical models. According to Hair et al., (2006), SEM helps researchers in examining the interrelationships among multiple variables (independent and dependent) simultaneously. Usually, SEM is performed in a two-step approach, i.e. the measurement model also known as CFA and the structural model also known as path analysis. Hair et al., (2006) believed that the measurement model (i.e. CFA) assist in testing the convergent-discriminant validity of the constructs. However, for the structural model (SM), Byrne (2001) indicate that it helps to identify the direct and indirect influence of one latent variable (LVs) in the model, i.e. SM tests the proposed hypothetical paths in the model.

Confirmatory Factor Analyses (CFA)

According to Hair et al., (2006), it is recommended to test the validity of the measurement model through two stages: (1) GOF indices and (2) composite reliability and validity. Based on these recommendations, the proposed research model was evaluated with the CFA, for the GOF indices, assessment of reliability and validity (convergent and discriminant) using AMOS version 23.0

To assess the overall GOF of a model, seven mostly commonly employed model fit measured were used, such as the ratio of X^2 to degrees-of-freedom (d.f.), the root mean square error of approximation (RMSEA), the goodness-of-fit index (GFI), the norm fit index (NFI), Tucker-Lewis Index (TLI), the comparative fit index (CFI), and the adjusted goodness-of-fit index (AGFI). Fit model means the extent to which the proposed model is good and accounts for the relations among variables in the dataset. Recommended thresholds limits for all these GOF indices are mentioned in table 3.

As shown in table 3, GOF indices were categorized into three categories, i.e. absolute fit, incremental fit, and parsimonious fit indices. Although, results of initial CFA model lit indices (X2/df = 1.497, RMSEA = 0.037, NFI = 0.903, TLI = 0.927, CFI = 0.933, and AGFI = 0.802) found to be in acceptable limits. In addition to these GOF measures, the values of standard regression weights (factor loading) for all items found to be >0.7, and standard residual values found within the acceptable limit (above 2.58 or below -2.58). Consequently, based on all these satisfactory results, it was worth mentioning that the research model adequately fitted the data and no further re-specification and refinement was required.

Table3. Model fit indices for CFA

Measure indices	Fit indices	Results	Criteria	Reference
Absolute fit measure	X2			
	X2/Df	1.589	1< χ2/df<3	Hair et al., (2006)
	RMSEA	0.037	*<0.05*	Bagozzi and Yi, (1988)
Incremental fit measure	NFI	0.903	*≥ 0.90*	Bentler and Bonett (1980)
	TLI	0.927	*≥ 0.90*	
	CFI	0.933	*≥ 0.90*	Bagozzi and Yi (2006)
Parsimony fit measure	AGFI	0.802	*≥ 0.80*	Hair et al., (1980)

At the same time, the assessment of reliability was performed using Cronbach's α reliability coefficients. Whereas, the validity of constructs was examined using three approaches i.e. convergent validity, discriminant validity and composite validity (Peter, 1981). To measure the overall reliability and internal consistency of each construct in the model, the researcher employed Cronbach's α reliability coefficients. Results indicated that reliability values for all constructs found above the recommended limit i.e. > 0. These results indicated high internal consistency and strong reliability among all constructs of the measurement model (see Table 4).

Table 4. Reliability, Average Shared Variance (ASV) and Average Variance Indicators (AVE).

Constructs	Cronbach's Alpha	AVE	ASV
System Quality	0.913	0.632	0.031
PEOU	0.897	0.593	0.008
PU	0.925	0.672	0.107
Service Quality	0.852	0.573	0.084
Information Quality	0.876	0.588	0.022
System Adoption	0.852	0.661	0.031
Attitude toward System	0.865	0.681	0.007

Convergent validity, on the other hand, as indicators in measuring certain construct whether they share a high proportion of variance in common (Hair et al., 2006). In order to measure the convergent validity of each construct used in the proposed model, the researcher employed AVE and estimates of standardized factor loading (Hair et al., 2010).

The acceptable requirement for factor loadings is to be equivalent to or higher than 0.50 and 0.70 respectively, indicating that the items relate to their factor. On the other hand, discriminant validity is related to correlation among the factors. To be free from discriminant validity problems, all items should be loaded highly on one factor. It can be achieved when the square root of AVE is above the correlation with any other variable (Fornell & Larcker, 1981). Additionally, another evidence of good discriminant validity is when AVE is greater than the ASV (Hair et al., 2010), and the square root of AVE is above the construct's correlation with other constructs (Fornell & Larcker, 1981). The ASV and AVE indicators are presented in Table 4.

The values of AVE for all constructs ranged from 0.502 to 0.717, which exceed the minimum requirements of 0.50 is another evidence of good convergent validity. Cronbach's alpha coefficient was the reliability indicators used. Therefore, both reliabilities were achieved as the alpha score all are above 0.7 which suggests that all the constructs had a good internal consistency.

Table 5. Discriminant validity

	AT	IQ	AU	PEOU	PU	SEQ	SQ
AT	**0.88**						
IQ	0.02	**0.81**					
AU	0.02	0.17	**0.87**				
PEOU	0.14	0.2	0.11	**0.81**			
PU	0.14	0.2	0.2	0.43	**0.85**		
SEQ	0.09	0.24	0.1	0.44	0.43	**0.74**	
SQ	0.12	0.02	0.26	0.22	0.09	0.2	**0.83**

Regarding the discriminant validity, the square root of AVE was higher than the correlation of other constructs presented in Table 5. In addition, the values for AVE for all constructs were higher than the values of ASV.

Therefore, this two validity evidence (convergent and discriminant) support the validity of the measures. This result suggests that the model has a sufficient degree of reliability and validity, allowing the analysis to continue with the assessment of the structural model.

Structural Model and Hypotheses Testing

Results of fit indices of the structural model are presented in Table 6. The likelihood ratio chi-square ($\chi 2$ = 3618.809; df = 2299; p = .000) was significant (p < .001); x2/df achieved an acceptable fit of 2.150 and found well within limits i.e. 1.0 < x2 / df < 3.0). Moreover, the results for TLI and CFI were 0.916 and 0.920 respectively and were above the recommended value of ≥ 0.90. Similarly, the results of AGFI (8.01) met the recommended criteria of ≥ 0.80. Finally, the value of RMSEA also found within the recommended criteria of < 0.5 and achieved an acceptable figure of 0.040.

This study's proposed structural model is found to be fit with the data as per the above table. Visually, the measurement model and structural model look similar but with little modification, the relationship between constructs now changes to one directional arrow representing dependence relationship. The fitness of the structural model needs to be analyzed through a similar process of achieving goodness of fit.

Table 6. Structural Model Fit Indices

Measure indices	**Fit indices**	**Results**	**Criteria**	**Reference**
Absolute fit measure	X2/Df	1.574	$1< \chi 2/df<3$	Hair et al., (2006)
	RMSEA	0.040	*<0.05*	Bagozzi and Yi (1988)
Incremental fit measure	NFI	1.000	*≥ 0.90*	Bentler and Bonett (1980)
	TLI	0.916	*≥ 0.90*	
	CFI	0.920	*≥ 0.90*	Bagozzi and Yi (2006)
Parsimony fit measure	AGFI	0.801	*≥ 0.80*	Hair et al., (1980)

Another important part of the structural model assessment is coefficient parameter estimates. Research hypotheses were tested by analyzing the path significance of each relationship and parameter estimates were used to produce the estimated population covariance matrix for the structural model. To examine the hypotheses of this study, critical ratios, standardized estimates and p-value were used.

It was assumed that a relationship is statistically significant at the 0.05 levels when the critical ratio (CR or t-value) found higher than ± 1.96 (Hair et al., 2006). All the casual paths in the model were examined based on the path estimates and CR (t-value). Results presented in table 7 shows that out of fifteen hypothesized paths between the variables, eleven were found to be significant. Whereas, the values of four hypothesized indicated that t-value did not exceed the cut-off point (>± 1.96) and hence are statistically insignificant.

Table 7. Regression estimates for latent constructs and hypotheses results

			Estimate	**C.R.**	**P**	**(β)**	**Supported**
ATT	→	PEOU	0.048	-1.120	0.263	0.048	No
IQ	→	PEOU	0.295	2.345	0.019	0.295	Yes
SEQ	→	PEOU	0.191	4.541	***	0.191	Yes
SQ	→	PEOU	0.116	2.831	0.005	0.116	Yes
ATT	→	PU	0.049	1.106	0.269	0.049	No
IQ	→	PU	0.180	1.962	0.05	0.180	Yes
SEQ	→	PU	0.126	2.849	0.004	0.126	Yes
SQ	→	PU	0.036	0.843	0.399	0.036	No
PEOU	→	PU	0.127	1.977	0.05	0.127	Yes
PEOU	→	AU	0.155	1.964	0.038	0.155	Yes
PU	→	AU	0.135	2.358	0.042	0.235	Yes
ATT	→	AU	0.101	2.197	0.047	0.151	Yes

			Estimate	C.R.	P	(β)	Supported
SQ	→	AU	0.310	5.070	***	0.310	Yes
SEQ	→	AU	-0.074	-1.179	0.238	0.074	No
IQ	→	AU	0.151	2.545	0.011	0.151	Yes

Note: Estimate = regression weight; C.R = critical ratio, P = significance value. *** Significant at 0.001 level (two tailed)

Results of statistical tests such as critical ratio and standardized regression weight provided significant statistical evidence for the support of these hypotheses. Figure 2 depicts the final structural model after deleting the unnecessary paths and hypotheses that were rejected previously.

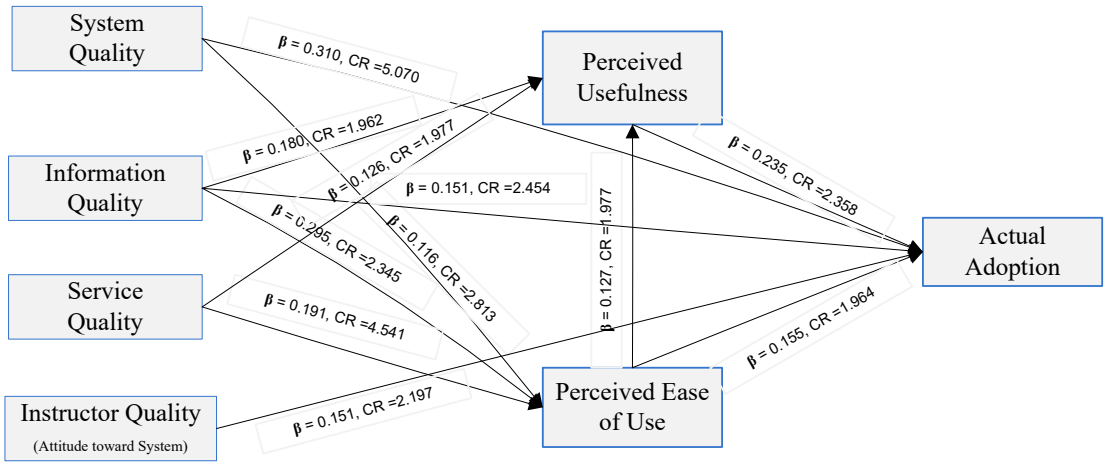

Figure 2. Structural model

Discussion

The research improves the understanding of influences of quality antecedents on instructors' adoption of LMS. The outcomes for each type of quality antecedents to instructors' beliefs are discussed. The hypothesized relationship between PEOU and AU was found to be significant. Therefore, based on the parameter estimate results (β = 0.155, t-value = 1.964, p = 0.001. This hypothesis was adopted from TAM, which implied that PEOU is a strong predictor of technology acceptance (Davis, 1989). Moreover, many researchers' empirical findings (Al-alak & Alnawas, 2011; Al-Gahtani, 2014; Al-Sayyed & Abdalhaq, 2016; Amin, 2009; Cheng, 2012; Findik & Ozkan, 2013; Hashim & Adviser-Eisner, 2011; Lee, et al., 2009; Maina & Nzuki, 2015; Mamat et al., 2015; Tarhini et al., 2015; Wang et al., 2003; Wichadee, 2015) found a strong impact of PEOU on actual LMS adoption and use. Researchers like Motaghian et al., (2013) also argued that the PEOU primarily influences the instructors' usage intention. Consistent with these previous studies, this research also found an empirical evidence of the fact that the acceptance and adoption of LMS are strongly influenced by its easiness perception.

Hypothesis H12 proposed that 'PEOU has a positive effect on the perceived usefulness to adopt LMS. As tested in the structural model, the parameter results (β = 0.127, t-value = 1.977, p = 0.001) suggested this hypothesis is supported by the results and hence can conclude to be statistically significant. Evident from these results is the fact that PU of LMS is significantly influenced by its ease of use belief that may further affect its adoption and acceptance to achieve the expected net benefit for higher education. This hypothesis was adopted from TAM, which posited that accepting to use information system is significantly influenced by its relative usefulness while considering its operational easiness (Davis, 1989). Similar to the findings of this research study, empirical findings of many previous research studies in similar context also found positive correlation between these constructs (Al-Gahtani, 2014; Al-Sayyed & Abdalhaq, 2016; Baleghi-Zadeh et al., 2014; Bousbahi & Alrazgan, 2015; Cheng, 2012; Davis, 1989; Fathema et al., 2015; Findik & Ozkan, 2013; Goh, 2011; Hashim & Adviser-Eisner, 2011; Lee et al., 2009; Tarhini et al., 2015; Wang & Wang, 2009; Yuen & Ma, 2008).

Therefore, it can be concluded that compared to the ease of use perception, the existence of positive belief on the usefulness would contribute towards the acceptance and adoption of LMS in Palestine HEIs to achieve the likely benefit. Overall, the role of both PEOU and PU is an important motivating determinant of LMS adoption. These findings further validated Davis's (1989) claim. In the context of LMS usage, Davis's claims can be restated as faculty members evaluate how easy or difficult it is to work with the LMS, and then they look at the usefulness of it for them. If they find it as an 'easy to use' and 'useful' technology for them then they develop a positive attitude towards it. The positive attitudes influence their actual use of LMS.

PU, on the other hand, is referred to as the user's perception of a specific innovation (system, service, technology) will improve his/her works performance (Davis, 1989). In this study, hypothesis H1b worded as "Perceived usefulness has a positive effect on the actual LMS adoption" was proposed. This hypothesis was found positive and statistically significant based on its parameter estimates (H1b: PU → AU; β = 0.235, t-value = 2.358, p = 0.001). Therefore, these empirical results supported the argument that usefulness beliefs of the potential users' have a positive influence on the instructors' intention to adopt and accept LMS. These results are consistent with the findings of original TAM which found that PU has a direct significant effect on the system use (Davis, 1989). Many empirical studies conducted in similar context of IS/IT acceptance and adoption (Al-alak & Alnawas, 2011; Al-Gahtani, 2014; Bousbahi & Alrazgan, 2015; Chang & Tung, 2008; Davis, 1989; Findik & Ozkan, 2013; Hashim & Adviser-Eisner, 2011; Kosgei, 2015b; Lee et al., 2009; Maina & Nzuki, 2015; Mamat et al., 2015; Motaghian et al., 2013; Qteishat et al., 2013; Saadé & Bahli, 2005; Tarhini et al., 2013a; Umrani-Khan & Iyer, 2009; Wang & Wang, 2009) which found similar results where PU had a significant impact on the system use. These empirical findings suggest that instructors are driven to accept and adopt LMS based on some believes established through the perception of its relative advantage after considering its usefulness. Therefore, it can be predicted that LMS is more likely to be accepted on large scale among instructors in various Palestinian universities if its usefulness is realized by the potential users. However, compared to PEOU (β = 0.155), the effect of PU (β = 0.235) is found to be stronger on AU.

Attitude toward system was supposed to have a direct and indirect significant positive effect on the LMS system adoption from instructor's perspectives in Palestinian higher institutions. The hypothesized relationship between attitude toward a system and PEOU and PU measured through hypothesis H9 and H9. The two hypotheses were statistically insignificant based on the parameter estimate results (β = 0.099, t-value = 1.106) and (β = 0.048, t-value = -0.120) simultaneously. Hence, these two hypotheses were rejected. These results indicated that attitude toward the system failed to find an indirect positive relationship with the instructors' actual use of LMS.

On the contrary, the hypothesis in this study was used to check the direct significance of instructors' attitude toward LMS on the actual LMS adoption. The results of parameter estimates (β = 0.151, t-value = 2.197) found to be statistically significant at p = 0.001. These findings indicated that the hypothesis found to be significantly accepted and implied that a positive attitude toward LMS from instructors would enhance their acceptance and adoption of LMS. Furthermore, these results are also in accordance with findings of many previous studies (Bhuasiri et al., 2012; Elkaseh et al., 2015a; Fathema et al., 2015; Ferdousi, 2009; Hashim & Adviser-Eisner, 2011; Nicholas-Omoregbe et al., 2017; Qteishat et al., 2013; Sharma & Chandel, 2013; Wichadee, 2015). It can be concluded that instructors concern and attitude toward LMS play an important role in determining the acceptance or rejection of the e-learning system.

System quality refers to the performance of the system itself in terms of accessibility, flexibility, integration, language, functionality, complexity, responsiveness and interfaces design to help instructors conduct teaching activities and facilitate learning. Results of parameter estimates of H11 (β = 0.036, t-value = 0.843) indicated that this hypothesis found to be statistically insignificant and hence, the hypothesis was rejected. The finding shows that system quality had no direct effect on PU was inconsistent with most prior studies (Andersson, 2006; Cheng, 2012; Hashim & Adviser-Eisner, 2011; Hayes, 2007; Lwoga, 2014b; Rogers & Finlayson, 2004). However, this finding was consistent with that of (Condie & Livingston, 2007; Motaghian et al., 2013; Wang & Wang, 2009). The effects of system quality may be useful during the initial implementation but will diminish over time. Therefore, it is important for the instructors to acquire and utilize useful information from web-based learning systems since perceived usefulness depends on the quality of the outputs of web-based learning systems rather than the system performance and its functions.

On the contrary, Parameter estimate results of H12 (β = 0.116, t-value = 2.813) suggested that this hypothesis was statistically significant at p = 0.001 level. System quality, which can be measured by factors including the design of user interface and the usefulness of the functions provided, may influence PEOU (Cheng, 2012; Condie & Livingston, 2007; Franklin, 2007; Hashim & Adviser-Eisner, 2011; Hayes, 2007; Rogers & Finlayson, 2004; Wang & Wang, 2009). However, the effects of system quality may decrease as the overall quality of IS improve because of new advances in methods and techniques of software and system development

(Wang & Wang, 2009). In the same way, hypothesis H11 worded as 'System quality has a positive effect on instructors' adoption of LMS' was proposed to have a direct significant relationship between system quality and actual LMS adoption. The results of parameter estimates (β = 0.310, t-value = 5.070) found to be statistically significant at p = 0.001 level.

Measures of information quality include personalization, completeness, easy to understand, security, timeliness, availability, relevance, and format of course contents delivered through the e-learning systems. Information quality was hypothesized to have both direct as well as indirect (mediated by PU and PEOU) positive effect on actual system use and adoption. The results of parameter estimates (β = 0.180, t-value = 1.962) for hypothesis H12a (IQ → PU) found to be statistically significant at p = 0.001 level and pointed out that information quality as part of system and technology factors is a strong predictor of PU to adopt LMS. This finding shows that if instructors perceive the e-learning system has accurate, updated, reliable, readable and well-formatted course contents, they will find the online courses more useful for their teaching processes. These results support previous research (Chen, 2010; Cheng, 2012). Therefore, information quality has a direct influence on instructor PU (Condie & Livingston, 2007; Hashim & Adviser-Eisner, 2011; Lwoga, 2014b; Motaghian et al., 2013; Rogers & Finlayson, 2004; Wang & Wang, 2009). Thomas and Stratton (2006) argued that an instructor's PU of web-based learning systems would increase if the information provided by web-based learning systems was beneficial to both students and instructors. Hypothesis H12b (IQ → PEOU) was worded as 'Information quality has a positive effect on instructors' PEOU of LMS. Results of parameter estimates (β = 0.295, t-value = 2.345) indicated that this hypothesis found to be statistically significant at p = 0.001 level. These results indicated that information quality can directly influence on instructor's PEOU. The more the web-based learning system output is relevant, timely, accurate and complete, the more the instructor finds the system easy for searching required information. This significant impact of information quality dictating ease of use to accept and adopt LMS substantiates previous findings (Cheng, 2012; Motaghian et al., 2013). Note that information quality contributed less to PU (β = 0.180) than PEOU (β = 0.295). At the same time, hypothesis H12c (IQ → AU) proposed that 'Information quality has a positive effect on instructors' actual adoption of LMS. Parameter result estimates (β = 0.151, t-value = 2.454) suggested that this hypothesis was statistically significant at p = 0.001 level and, hence, this hypothesis was accepted. Like the findings of Motaghian et al., (2013) where it was confirmed that the influence of information quality on increasing users' intention to use e-learning systems, the findings of this research study indicated that information quality also predicts instructors' intention to use web-based learning systems directly. Though information quality had a direct influence on instructors to adopt LMS, it has also a significant relationship indirectly through PU and PEOU that increased the actual adoption.

Service quality refers to the overall support provided by the service provider, such as the ICT department, specific unit in an organization or outsourced services (Ahn et al., 2007). Three hypotheses were proposed to investigate the effect of service quality on LMS adoption. The hypothesized relationship between service quality and PU measured through hypothesis H13a (SEQ → PU). Results of parameter estimates (β = 0.126, t-value = 2.849, p = 0.001) revealed that the path between these two constructs was found to be significant and hence, this hypothesis was accepted. These empirical results show that service quality is a strong predictor of PU. The results showed that the perception of online support service quality could be regarded as a key role in mapping users' behavioral intention towards LMS acceptance. It further showed that perceived service quality had a significantly positive impact on PU of e-learning systems. The finding that service quality, contrary to system quality, had a direct effect on PU was consistent with the findings of different studies (Ahn et al., 2007; Cheng, 2012; Lin, 2007b).

The hypothesized relationship between service quality and PEOU measured through hypothesis H13b (SEQ → PEOU) found to be significant and supported based on the parameter estimate results (β = 0.191, t-value = 4.541, p = 0.001). These results indicate that instructors perceive that an e-learning tool is an easy-to-use tool. It is realized when institutions can provide learners with sufficient service resources including trained service coordinators and skillful technical service engineers in online classes, the e-learning system will be perceived as easy to be used among instructors. The results of this study indicated that service quality increased instructors' PEOU of web-based learning systems. The empirically significant relationship between service quality and PEOU has also found by many earlier studies conducted in investigating the acceptance and adoption of new IS and LMS (Ahn et al., 2007; Cheng, 2012; Lin, 2007b; Motaghian et al., 2013; Wang & Wang, 2009).

Furthermore, according to hypothesis H13c (SEQ → AU), service quality was supposed to have a significant direct effect on actual LMS adoption and use. However, results of parameter estimates (β = -0.075, t-value = -1.179) indicated an insignificant relationship between service quality and actual system use. Therefore, this hypothesis was rejected. These findings suggested that service quality is not a direct fundamental determinant of LMS adoption. However, it indirectly influences instructors' attitude after considering its ease of use and usefulness. In contrast with results of Ramayah et al., (2010) research which confirmed the influence of service

quality on increasing users' intention to use e-learning systems, our findings indicated that service quality did not predict instructors' actual adoption of web-based learning systems directly.

Conclusions

The main objective of this study was to identify the quality significant factors that affect the adoption of LMS among instructors in Palestine HEIs. To achieve study objectives, a hypothesized research model based on TAM and IS success Model was developed. Various prior empirical research studies employing different well-known IS/IT theories/models were reviewed to identify their relevance to the contextual settings of the objectives of this research study. The primary data for this research is gathered using a survey questionnaire. This study employed a cross-sectional technique that is based on data that are collected at one point in time with a typical interest in describing relationships among variables for a stable population. A self-reporting, paper-based survey questionnaire was developed as the data collection tool. Instructors were asked to indicate their level of agreement or disagreement with various statements in the survey questionnaire with a 5 -point Likert- type scale as a measurement. Synthetically speaking, four types of quality Factors (system, information, service and instructors' quality), as the antecedents of e-learning acceptance can provide detailed accounts of the key forces underpinning learners' perception about their beliefs (i.e. PU, PEOU), and this situation can further lead to the enhancement of learners' usage intention of the e-learning system.

As with all other empirical research, this study has its limitations. First, the data collected was self-reported by instructors. Therefore, the reliability of the survey data is dependent on the instructors' honesty and completeness of their responses. It was difficult to know how accurately self-reports reflect their actual intention to use e-learning systems. Second, the findings of this study may not be generalized to the adoption of web-based learning systems of instructors in different contexts, such as elementary schools and high schools as it is targeted HEI only. Third, the proposed model was tested in Palestine's context and findings may vary in other underdeveloped countries. Additionally, the data for this research was collected under voluntary settings, which might not be the best condition for the respondents. Therefore, the findings may not be generalized to mandatory settings. However, the proposed adoption model is not a fixed and unchanged model and is open to continuous development. Future studies may extend or modify this adoption model by adding other dimensions or external variables that are valid for various educational level contexts. Also, this research was a cross-sectional study in gathering data from university students at a single point in time. It is recommended that future research conducts a longitudinal study to further understand the interrelationships between the various factors that may play a significant role in influencing student acceptance of LMS.

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