

Barriers to Effective Implementing MBA E-Learning Programme: A Survey

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ABSTRACT: Traditional classroom teaching method has been in existence for long and this approach has been considered the best way to deliver educational training to students probably due to no viable alternative to it then. The major problem of this approach is that it demand greater flexibility from workers or managers who want to continue or enroll for a program. There is also growing realization that this method of teaching may not be appropriate for distance learning. However, the development in Information and Communication technologies has brought about rapid changes in the learning environment. Students can now receive their learning materials through the internet, participate in online discussion and get instant feedback. The objective of this paper, therefore is to examine whether combining online and traditional classroom approach will result to better and effective way of learning. A purposive sampling was used to select 198 out of 215 MBA students that participated in the study. The Statistical techniques used were the Correlation analysis, Chi Square test and descriptive analysis. Result reveals that combining Online learning with the Traditional classroom teaching offer better and effective way of learning and the use of e - learning in MBA programme has brought significant improvement in students' learning and development among others. Recommendations were suggested to address some problems identified in the study and useful solutions proffered.

Key words: Asynchronous • Information Technology • E-learning Synchronous • Distance learning • Classroom Teaching • Frustration

INTRODUCTION

The traditional classroom teaching is now being complemented with a modern teaching practice known as e-learning or computer based learning. Other terms that are sometimes used are on-line learning, distributed learning or web based training. This is made possible through the advancement in technology, most especially the information technology. The development in information technology has made it easier for communication to be facilitated between the education providers and learners [1]. According to Yan *et al* [2], E learning involves various technologies (cable TV, internet or computer), various forms (virtual learning, online learning or distance learning) and various components (e-book, e-dictionary, e-library, e-classroom,

e-assessment, e-homework and e-management). E-learning has become an important form of teaching and training method for public or private organizations engaged in education [3,4]. There are three groups of users namely - academic institutions, teachers and students. It plays vital role in teaching teens, young adult, adults and senior citizen [5-10].

Education Sector has therefore, become very complex and like other sectors, is cost sensitive and thus utilizes the latest technology in streamlining its operations. The whole idea of using internet technology to deliver training is now regarded as the era of "e-learning revolution" [11-18].

Welsh *et al* [19] stated that there are two types of e-learning: Asynchronous or the prerecorded form of learning which is popularly used [20] and the less

common type, which is Synchronous e-learning or live form, that requires all learners to be in front of their computers at the same time.

The Asynchronous applications vary in term of sophistication, the less sophisticated are often Microsoft PowerPoint Slides posted on a website while more sophisticated applications require learner involvement, including online learning simulations with graphics, animation, video and audio components [19,21]. The most basic type of Synchronous learning involves real time “chat” session for students while the more complex type involves learners from diverse locations log on at a set time and an instructor facilitates discussion, at the same time showing slides or writing on a “white board” that appears on the computer screens of the learners. The learner has opportunity to ask questions even verbally from the instructor. There is an increase discovery of new uses of technology, for learning, in form of instant messaging, file sharing, social networking and blogging. Blogs are used to develop an essay plan, create a photo gallery, record personal development process and have many different applications in e-learning. It is also designed as a useful tool for research and teaching.[19,22].

This shift towards embracing online learning as method of education offers better future prospect not only to the education provider but the learner, if it is effective. In other word if it is able to achieve and fulfill the desired result. The general objective of this paper therefore is to examine whether combining online learning with the traditional classroom approach offer a better and effective way of learning. The specific objectives also given considerations are:

- To evaluate if there is improvement in MBA students learning as a result of adopting e-learning method;
- To determine if a significant difference exist in the proportion of MBA students who like and those who don't like e-learning; and
- To critically assess factors serving as constraints toward successful implementation of e-learning program.

MATERIAL AND METHODS

Literature Review: There are various definitions of e-learning as a result of the diversity in understanding the concept, however some of these definitions are going to be given considerations [23,24].

E-learning is described as the use of computer network technology, primarily over an intranet or through the Internet, to deliver information and instructions to individuals [19]. It is also defined as any system that “generates and disseminates information and is designated to improve performance” [20]. Noe [25] pointed out that it is a training delivered via network technology, where training refers to planned efforts to increase job related knowledge and skill. According to Yan *et al* [2] in their study, e-learning is the third learning system that uses various electronics techniques as its primary medium for learning [20,26,27]. They further said that the first learning system is called S-learning which involves using speech as its primary medium to promote learning. This was replaced by P-learning, the second learning system that uses paper as its primary learning medium.

Azim [28] argued that e-learning can be viewed as making materials such as handout or presentation slides available on the web. In considering the various definitions above, e-learning can therefore be described as an alternative method of learning done through computer web or Internet, primarily to improve learning performance of learners. This method of learning offers better prospect for mass education in future and more likely to receive wider adoption by educational and corporate institutions,[29]. There are various work done on e-learning by experts in this field amongst which include: Figueira [30] list of suggestions regarding methods of assessment in order to determine the effectiveness of e-learning strategy; e-learning increases student satisfaction or enhance the learning process [31,3]; Students retention is one of the most important challenges facing distance education institutions [32-35]; various forms of e-learning [36-39]; e-learning offers new way of collaborative learning that may enhance student performance[40,41]. It improves opportunities for cross cultural teaching [42-44]; cost of e-learning [45]; online instructors and teachers require more knowledge about online teaching [46,47]; technology for e-learning has its trouble [48,49]; attitude problems among teaching staff implementing e-learning [50]; e-learning not liked by many students and there is emotional obstacles to e-learning [51,52]; value of collaborative e-learning: compulsory versus optional assignments [53]; value paradox of e-learning in MBA programs [54]; psychology of e-learning [2]; students reporting a sense of “class culture” being developed online[55]; meanings and implication of e-learning in business school [1]; course based learning practices in an online MBA program [56];

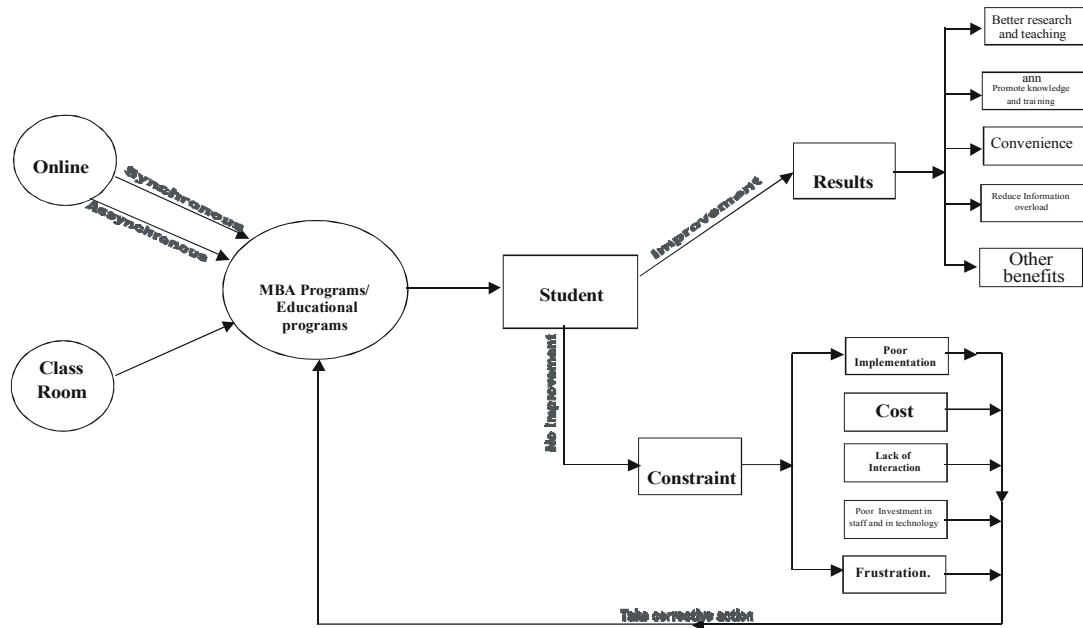


Fig. 1: Analytical Framework for Implementing the Traditional Classroom and MBA e-Learning Programme

means of effectively evaluating, designing and managing e-learning programs [11]; attitudinal belief on adoption of e-MBA programs [29]; and many others not discussed above.

Basically different management models are in use in academic world today, two of them are traditional while the other two are more recent models that have developed in parallel with the emergence of the new information and communication technologies [1]. They are namely - residential model, distance education, ICT based model of education and hybrid education model and they are stated as follows:

- Residential model - Management education has been delivered through residential programs, for instance full time or weekend MBAs or shorter management seminars in which students and faculty convene on campus to work with each other in face to face situations. This approach was considered the best way to deliver management training, partly because there was then no viable alternative to residential programs [1].
- Distance education - This involves doing course work away from physical campus. This is not a recent phenomenon but dated long back. It is also known as correspondence course. The goal of this type of education model is to offer students experience similar to the traditional face to face classroom [57, 58, 1].

- ICT based model of education - Until now the Internet has had little impact on business education. However the development of information and communication technologies have brought about changes in the business education and this will continue for many years to come. This model offers continuing education for working managers and alleviates some of the problems normally associated with distance learning. The model allows the use of various information and communication tools for learning [1]; and
- Hybrid education model - This combine the best of residential education with the best of ICT based model. It reaches a wide group of participants and increases the depth of discussion, thus allowing for more reflection. It therefore enables construction of a strong learning community, a rich learning environment and highly collaborative learning [1, 59, 60].

Analytical Framework: The information obtained from the literature review and other relevant materials consulted are primary input used to develop the analytical framework for this study. The Analytical framework is designed to explain the influence of both online and classroom teaching on students' performance (Figure 1). The Schematic framework is based on factors and concepts that have been used by researchers in past similar studies.

Methodology: This study adopted the survey method to basically examine the effect of both online and traditional classroom teaching on students' performance. The study try to determine if the two methods of learning result in the improvement of students' learning performance or not. 198 students out of 215 MBA students of the Institute of Public Administration and Management, University of Sierra Leone were considered for the study. The survey Instrument used was Questionnaire and of Likert type. The study was conducted between November 8, 2010 to December 4, 2010 just to enable students have enough time to fill and return the questionnaire. The Likert type questions have a 5 point scale (indicating 1 = Strongly disagree, 5 = Strongly agree), divided into four sections: Biographical Information of students, questions examining students attitude to Online learning, Classroom teaching and both methods of learning. The Instrument contained 39 Items in all. The MBA programme was designed by the Institute for existing business managers wishing to develop their skills or individual with specialist technical knowledge that aims to better operate at higher managerial cadre. This MBA programme is predominantly traditional non residential but now trying to incorporate some form of e - learning to enrich its course content. The MBA programme is chosen out of the seven postgraduate courses run by the Institute because of its largest number of students' enrollment every year and more importantly its relevance in terms of revenue generation. The MBA programme popularity among prospective candidates desiring to apply for post graduate study at the Institute is also another factor for its choice. The purposive sampling technique was therefore employed to select the respondents who participated in the survey. Purposive sampling is normally used to obtain information from specific target. The target group in this study was therefore the MBA students selected for the study [29]. The following hypotheses were formulated for the study based on the literature review:

- H₁:** The most effective way of learning is through combining online learning and traditional classroom approach;
- H₂:** There is no significant difference in the number of students who like and those who don't like e-learning method of study;
- H₃:** The use of e-learning in MBA programme has brought significant improvement in student learning and development; and .
- H₄:** There are significant factors working against the effectiveness of e-learning as a method of study.

Table 1: Respondent's Profile

| | Sex | Frequency | Percentage |
|---|-----------------------|-----------|------------|
| 1 | Male | 78 | 39.4 |
| | Female | 120 | 60.6 |
| | Total | 198 | 100 |
| 2 | Age | | |
| | 21 - 30 years | 60 | 30.3 |
| | 31 - 40 years | 108 | 54.5 |
| | 41 - 50 years | 30 | 15.2 |
| | Total | 198 | 100 |
| 3 | Qualification | | |
| | HND/BA/BSc | 173 | 87.4 |
| | Post Graduate Diploma | 15 | 7.6 |
| | MA/MSc | 3 | 5.1 |
| | Total | 198 | 100 |
| 4 | Religion | | |
| | Christian | 68 | 34.3 |
| | Muslim | 130 | 65.7 |
| | Total | 198 | 100 |

Source: Field Survey 2010

The statistical techniques used to test the above stated hypotheses are Correlation analysis; Chi square test and descriptive analysis, most especially the Mean and Standard deviation.

Discussion and Findings: The information in Table 1-5 presents the summary of our study on barrier to effective implementation of MBA e-learning programme. Table 1 shows the respondents' profile. The profile indicates that 61% of the respondents are females while 39% are males. The increase in number of female than that of the male may be due to the recent rise in the number of working class women in African countries due to increase in the number of educated ladies who are now playing key role as bread winners in their different families. This is in contrast to the past when men solely assumed the role of the bread winners for their homes. Therefore, most women and ladies have seen the need to attain higher education level so as to be able to meet up with their superior male counterparts in the office and enjoy the same benefits as their male counterpart.

The majority of the respondents surveyed (54.5%) fall within 31 - 40 years age range, 30.3% are between the 21 - 30 years range and (15.2%) are between 41 - 50 years old range. The age distribution reveals that most of the respondents still have at least 20 years of service in their various jobs since the retirement age in public service is now 60 years for those in the Ministries and 65 years for other Government Parastatals and Institutions like

Table 2: Correlation for Combined Learning Approach and Selected Variables

| Variables | Correlation | Coefficient of Determination (r ²) | Probability Value | Decision |
|--|-------------|--|-------------------|----------|
| Better research and training | 0.806 | 0.650 | 0.01 | S |
| Convenience | 0.778 | 0.605 | 0.01 | S |
| Promote knowledge and training | 0.881 | 0.776 | 0.01 | S |
| Reduce Information overload | 0.545 | 0.776 | 0.01 | S |
| Give opportunities for cross cultural teaching | 0.505 | 0.776 | 0.01 | S |

P ≤ 0.01. S = Significant

Table 3: Chi - Square Statistics of Support for e-Learning

| Category | Support for E learning | | | | | Total |
|----------|------------------------|----------|-----------|-------|----------------|-------|
| | Strongly disagree | Disagree | Undecided | Agree | Strongly agree | |
| Response | 20 | 50 | 14 | 75 | 39 | 198 |
| % | 10.1 | 25.3 | 7.1 | 37.9 | 19.7 | 100 |
| Total | 20 | 50 | 14 | 75 | 39 | 198 |

X² = 60.636, N = 198, df = 4, X²_{0.05} = 9.488, Decision : H₀ Reject

Table 4: The use of E-learning in MBA and Student Performance

| Support for e-learning | Improve Study | | | Total |
|------------------------|---------------|-------|----------------|-------|
| | Disagree | Agree | Strongly Agree | |
| Strongly Disagree | - | 20 | 0 | 20 |
| Disagree | 10 | 50 | - | 50 |
| Undecided | - | 14 | 14 | 14 |
| Agree | - | 75 | 56 | 75 |
| Strongly Agree | - | 39 | 39 | 39 |
| Total | 10 | 108 | 109 | 108 |

X² = 156.233, N = 198, X²_{0.05} = 15.507, Decision: Accept: H₀

Table 5: Mean and Standard Deviation of Constraints Facing Successful E-learning Implementation

| Factors | Mean | Standard Deviation |
|---|-------|--------------------|
| Frustration | 3.253 | 0.996 |
| Poor Investment in staff and technology | 3.657 | 0.9090.909 |
| Poor Implementation | 4.000 | 0.637 |
| Lack of interaction | 4.101 | 0.543 |
| Cost of staff and technology | 4.151 | 0.480 |

Universities and Training Institutes. This means that most of the respondents have undertaken the programme in order to enable them assume a higher position of responsibility after the completion of their study. The information obtained from the profile also indicated that 66% of the respondents were Muslim while 34% were Christians. This may probably be due to the fact Sierra Leone is predominantly Moslem dominated country. Most of the respondents admitted to the programme are first degree holders (87.4%), while very few of them have Master's or secondary degree (5.1%) and postgraduate

diploma (2.6%). Those with postgraduate diploma are those that did not have the minimum entry requirement for direct admission to the MBA programme. The result further revealed that there was improvement in student learning (70%) through the combined method of learning. This was supported with respondents' opinion that the combined method of learning yield better research and teaching (65.1%); students enjoy convenience (70.2%); It promotes knowledge and training (75.3%); it reduces information overload (50%) and gives opportunity for cross cultural teaching programme (94.9%). However, more of these respondents prefer e-learning methods (57.6%) and they believe that this method saves time (85.4%); It allows the use of multimedia tools for instructional purposes (89.9%); Online materials are more comprehensive and detailed (85.4%); most are not afraid of using computer (75.3%); students are having good grade in their online courses (79.8%); Online courses should be combined with the traditional classroom teaching (95%); it can only be successful if there is regular Internet connectivity and power supply (100%);

It brought about improvement in the students' study skills (95%) and it creates highly collaborative learning environment (52%).

However, the respondents expressed their reservations about online learning method due to the following reasons: They don't enjoy online discussion (70%); it does not offers opportunity for criticism of other students' work (70.2%) and interaction (69.7%). The form of e-learning used most by the respondents was receiving study materials and lecture notes through e-mail (65.2%); followed by online submission of assignment (24.7%) and online test (10.1%). Most respondents would like to do online examination (95%) despite the fact that this is only done at the certificate programme level. They want more information technology facilities to be provided so as to extend the online examination to the MBA programme.

On Traditional Classroom method the respondents believe that face to face exchange of information is best offered (89.9%); personal relationship between the students and lecturers result to better performance (65.2%); there exists mutual trust between students and lecturers (60%); Students are motivated due to the interaction amongst them and lecturers (89.9%); the methods need to be combined with online learning in order to adjust to the changing development in education sector (89.9%); and students are doing well in courses done through traditional classroom method (100%). However, the respondents believe that this method demands greater flexibility from the working students (94.9%).

Test of Hypothesis H₁ with Correlation Analysis:

The Pearson Correlation analysis was used to examine if the most effective way of learning is combined online learning and traditional classroom approach at 99% confidence level. There are five variables used for the analysis as shown in Table 2. The analysis indicates that all the variables are positively correlated. The coefficient of determination (r^2) further reveals that three of the variables were strongly positive correlated and these include: Promotion of knowledge and training (0.776); followed by better research and teaching (0.650) and convenience (0.605). These variables were all significant at 99% confidence level. It is clearly shown that the combined method of learning results in promotion of knowledge and training, better research and teaching and more convenience form of learning. Thus, the combined method offers an effective way of learning. The result further confirms past similar studies done by researchers that e-learning improves performance and increase job

related knowledge and skills [25,40,41]. Therefore, we accept Hypothesis H₁ which stated that the most effective way of learning is combined online learning and traditional classroom teaching.

Test of Hypothesis H₂ with Chi-Square Statistics:

This hypothesis attempts to examine if there is significant difference in the number of students who like and those who don't like e-learning method of study. The Chi - square statistics was used to test the hypothesis at 95% confidence level and the result reveals that there was significant difference: $X^2_{cal} = 60.636 > X^2_{tab} = 9.488$ at 4 degree of freedom as shown in Table 3. Therefore, we reject the Null hypothesis that there is no significant difference and accept alternative hypothesis that a significant difference exist in the number of those who prefer and those who do not prefer e-learning method of study. In the study those who prefer e-learning (57.6%) are more than those who did not prefer e-learning (35.4%) while 7.1% of the students are undecided about the method of learning. This result reveals that if the Institute adopts the use of Information Technology in their MBA programme it is likely to be more accepted by students.

The result is in contrast to study done by Juutinen and Scariluoma [52] who found out that e-learning is preferred by only few students.

Test of Hypothesis H₃ with Chi - Square Statistics:

Hypothesis H₃ attempts to examine if the use of e-learning in MBA programme has brought significant improvement in students' learning and development. The Chi - square statistics was used to test the hypothesis at 95% confidence level and the result reveals that there was a significant improvement in students' learning: $X^2_{cal} = 156.233 > X^2_{tab} = 15.507$ at 8 degree of freedom as shown in Table 4. Hence we accept the Null hypothesis and reject the alternative hypothesis that there is no significant improvement in students' learning. This hypothesis is supported with the opinion expressed by the respondents that the method saves time (85.4%); allow the use of multimedia tools for instructional purposes (89-9%) and improve their study skills (95%).

Test of Hypothesis H₄ with Descriptive Statistics:

The mean and standard deviation were the descriptive statistics used to determine the factors working against the effectiveness of e-learning method of study. There are five factors considered for the study as shown in Table 5. The cost of staff and technology serves as the greatest constraint to effective implementation of e-learning

method of study (Mean = 4.152 and SD = 0.480); followed by Lack of Interaction between staff and students (Mean = 4.101 and SD = 0.543); Poor implementation (Mean = 4.00 and SD = 0.637) and Poor Investment in staff and technology (Mean = 3.657 and SD = 0.909). Frustration does not constitute as a significant constraint because the Mean (3.253) is below the average mean for the study. Weller [45] discussed about the cost of e-learning as one of the major constraints facing it as a method of learning; this therefore is in agreement with the result of our study. Hence we conclude that there are significant factors working against the effectiveness of e-learning method and therefore, accept our Null Hypothesis.

Conclusions and Recommendations: This study has shown that combining online and traditional classroom approach offers effective way of learning; there was significant difference in the number of students who prefer or do not prefer e-learning method; there was improvement in MBA students learning as a result of adopting e-learning method with the traditional classroom approach and there are factors working against the effectiveness of e-learning as a method of study. The study has reveals that e-learning has become an important part of our academic culture and there is tendency for its wider use by educational institutions and corporate organizations in future, as we experience more technological development in the field of Information Technology. However, there are various measures that need to be taken in order to ensure its effective adoption in our educational programme. The following recommendations are therefore suggested:

- Educational and Corporate Organisations contemplating the adoption of e-learning should not be discouraged because of the initial substantial costs often associated with Online programme, most especially at the developmental stage. This initial investment will yield better result if given close monitoring and it subsequently become successful. It is expected that e-learning should be an affordable and comprehensive learning method [11];
- The emotional needs of students regarding the use of e-learning should be met, most especially those that are just using the computer and the Internet for the first time. This set of students expressed frustration in the use of e-learning method of study. Taking care of the interest of this category of students will make them not to be confused and also ensure the creative use of the e-learning method;

- A collaborative online learning environment should be created so as to enable students have opportunities to exchange ideas and information. This will solve to a lesser extent the problem of interaction commonly associated with the online method;
- E-learning should be effectively implemented for it to achieve its objective, as a qualitative and effective learning method of study. Schank [61] gave seven methods of assessing e-learning programme using the acronym “FREEDOM” and they are: Failure, Reasoning, Emotional, Exploration, Doing, Observation and Motivation. These methods are briefly explained as follows: Failure - The students should learn from their mistakes. Reasoning - They should be involved in deliberations in order to apply their knowledge to real life situations. Emotionality - Course materials should provoke emotional response from students. Exploration - This help to provide a more engaging environment for learners. Doing - The learner should be given the option to learn in his or her own way or own time. Observation - this includes the provision of diagrams, charts and other visual aids. Motivation - Student should have a feeling of being able to personally relate to the material and its value. They should not be motivated only to pass the test or examination alone. The course designer should strive to create a deeper motivation in learner for them to learn new skills and transfer those skills back in to work environment [11]; and
- There is need for online instructors and teachers to update their knowledge about the latest online teaching, because they must use different teaching methods from those use in traditional classroom teaching. This to a certain extent will address the problem of poor investment in staff and technology [46,47]. Other problems that need to be attended to, for effective online learning to be actualized includes: poor pedagogy, poor research and measurements, unmotivated staff and inferior online tools [11].

In conclusion, this study has to certain extent shown that e-learning offer a better prospect in future if problems raised in the study are addressed. It is hoped that the study will be of benefit to online instructors, Educational and Corporate Institutions in designing an effective online programmes for both the students and staff.

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