



Investigating Learners' Perspectives towards MOOC Learning Environment in Selected Indian Universities

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ABSTRACT

Massive Open Online Courses (MOOCs) have recently grown in prominence and acceptance among both academics and business professionals. Along with being accessible, these courses give students the chance to study a range of subjects from around the globe at a speed that can be adjusted to suit their individual needs. The open - source nature of MOOCs allows students to explore a variety of fields for little to no money, but it also enables educational institutions to reach a wider audience, improve their brand recognition, and introduce pedagogical innovations. At a global level, MOOCs have the potential to become a platform for attaining Sustainable Development Goal No. 4, which is to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for everyone." There is a lot of knowledge regarding the advantages of MOOCs for both students and teachers, but there have also been some difficulties, which if investigated could lead to improved teaching and aid students in meeting their learning goals. The benefits and difficulties that have surfaced as a result of primary qualitative research are discussed in relation to MOOCs as a learning channel. The data gathered are then subjected to a thematic analysis for the purposes of this study. In its last section, the article tends to offer some suggestions for improving learning outcomes for students through curriculum design, material customization, and alignment with their individual characteristics and goals.

Keywords: *Learner's Motivations, MOOC Acceptance, MOOC Adoption, MOOC Retention, MOOC Completion, Learner's Engagement, Literature Synthesis, MOOCs*

Introduction

The usage of Information and Communication Technologies (ICT) has increased significantly during the past few years, along with the paradigm shift in education. With the growth of ICT, open, online, and flexible learning has moved away from the refractive nature of traditional education. Massive Open Online Courses (MOOCs) are a recent innovation that are grabbing the attention of academics and business leaders alike as they continue the trend of open learning. Jo Shan (2013). As institutions of higher learning, many universities are a crucial instrument for

supporting sustainable development, according to (Uvalić-Trumbić & Daniel, 2016). In order to achieve Sustainable Development Goal No. 4, "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for everyone," which the United Nations adopted in 2015, these training models and higher education are more crucial. ODL (Open Distance Learning) is given more thought in order to address the educational issues for the stereotypical adult population with the intention of offering the disadvantaged fresh alternative learning alternatives (Dea Lerra, 2014).

UNESCO asserts that in order to enhance the function of ODL, educational delivery methods should be varied in order to encourage cooperation between organisations that provide remote education and professional bodies (Ghosh et al., 2012). This study seeks to uncover learners' attitudes towards MOOC learning environment among higher education students and faculties in selected Indian Universities with special reference to Tamil Nadu utilising an integrated model of Information Success (IS) success model and Technology Acceptance Model (TAM) to analyse MOOCs adoption drivers in the context of developing countries.

The focus given to student and researcher perspectives is rising as a result of MOOC platforms already offered a review of MOOC studies. The current era is one that is characterised by restructuring and transition, and social institutions, including education, are going through significant change. Technology should be viewed as a process or a collection of instruments that enable integrated methods and processes that in turn promote self-learning and the efficient arrangement of knowledge, (Daniel & King, 1997) and others have advised educators as early as the early 1990s. As a result, information technology has the ability to completely change how administrators and instructors in higher education utilise these effective instruments.

Numerous opportunities for learning have been made possible through the internet. Changes, however, might strengthen or weaken educational objectives, and the features of the technology must be taken into account. Future generations are being raised in a technologically advanced society, which presents new teaching and learning issues that need to be addressed. The institution's capacity for swift adjustment will determine how higher education develops in the future (Ramsden, 2003). To identify engagement patterns and elements that influence involvement in the MOOC, (Milligan et al., 2013), conducted an analysis. The three distinct forms of engagement—active participation, passive participation, and lurking—were identified. Additionally, the factors that mediated involvement were identified were motivation, past experience, and confidence. The results offered insight into how the learning environment offered by c MOOCs suits the wide spectrum of learners who may cohabit within a c MOOC. The study included recommendations for how future MOOC designers may use these findings to customise the educational experience for the many types of students who might choose to learn this manner. (Alraimi et al., 2015) conducted a study to find out what influences people's intentions to keep using MOOCs. Using the data gathered from a large-scale investigation, a research-based model was designed and tested using the information systems in continual expectation-confirmation model. The appropriate proportion of significance in variance for the intention to continue using MOOCs was indicated in the research model. Last but not least, perceived repute, perceived openness, perceived usefulness, and user pleasure all have a substantial impact. Additionally, the

study discovered that perceived reputation and perceived openness were the best indicators of whether or not someone would use a MOOC.

A study that was initiated as an experiment by the Academic College of Engineering was examined by (Pundak et al., 2014). The students in this programme were given the opportunity to enrol in MOOCs provided by institutions, which added to their credentials. Only 15 of the 600 programme participants registered for these courses. The programme only accepted seven applicants. The article discussed the rationale behind the college's choice, the registration process, and student supervision, outlining students' difficulties and successes in the MOOC courses.

Using pre- and post-course surveys, (Liyanagunawardena, Lundqvist, & Williams, 2015) investigated the characteristics of learner groups drawn to two courses as well as their perceptions of the course. The results showed that a MOOC is unlikely to satisfy everyone, especially with such sizable cohorts. The study advised MOOC designers and facilitators to acknowledge that a course cannot be created to satisfy everyone and make an effort to identify the course's target audience. The advantages and business strategy for institutions that offer free online courses Universal access to education, experimentation, and DIY kit are among the still-in-development products. earning international recognition.

The typical MOOC learner in Western contexts is a person who is over 25, has a bachelor's degree, and is from a developed nation (Christensen et al., 2014; Dillahunt et al., 2014). Participants in MOOCs, on the other hand, come from a variety of cultural backgrounds. are diverse in terms of their ages, educational backgrounds, and motivations. The age range of edX students, for instance, was discovered by (Mitros et al., 2014) to be between 8 and 95 years old. were to be found in almost every nation on earth, and their educational standards ranged from elementary to advanced. Likewise, (Christensen et al., 2014) found that Coursera students displayed comparable behaviours. The demographics and enrollment goals are very different.

A similar MOOC course on "Teaching Methodologies" was designed, implemented, and evaluated in detail by (Yousef et al., 2015) in collaboration with RWTH at Fayoum University in Egypt. They used an evaluation strategy based on Conole's 12 dimensions' rubrics, ISONORM 9241/110-S as a generic usability evaluation, to assess the usability and efficacy of the training. (Weller et al., 2015) participated in the OER Research Hub that has been examining the impact of OER, utilising a mixed methodologies approach and eleven hypotheses to develop an evidence foundation. Thus, the research on teaching and learning was examined in the paper. The study discovered that there were additional indirect effects, the advantages of which would become apparent after multiple repetitions. These include the extensive reporting of adaptation as well as the rise in sharing and open practice brought on by the use of OER.

Objectives of the study

The first objective of this study is to generate the student's perception and attitude towards the nature and instructional format of MOOCs among the higher education students. The second one is to identify the learner's perspectives towards different factors of MOOCs (*reliability, usability, information quality, knowledge, engagement, and performance*) post usage among the higher education students

Purpose of the study

From 2016 onward, over 58 million students registered for MOOC courses offered by over 700 colleges and over 6850 courses provided by other providers including Coursera, edX, and Udacity. After the US, India is leading the world in enrollment growth. As of 2016, there were 8,83,400 (27%) users of edX, 1.5 million (million) users of Coursera, and 112,000 (13%) users of Udacity from India. The Indian government introduced SWAYAM (Study Webs of Active Learning for Young Aspiring Minds), an indigenous MOOC platform, on July 9 in order to advance the SDG 4's three guiding principles of access, equity, and quality in education policy.

According to earlier studies, MOOC use facilitates learning, information access, and communication anytime, anywhere. The need for study on potential factors affecting MOOCs adoption, such quality, which is at the core of education and training in all nations, is nevertheless expanding as demand for the creation of MOOCs increases (Ehlers & Hilera, 2012). In the context of developing nations, in particular (Masoumi & Lindström, 2012), which results in a fact that calls for more examination.

Thematic factors

Table 1 shows the thematic factors in the form of questions.

Table 1. Thematic factors in the form of questions

No.	Question	Positive Words	Negative Words
Q1	Understanding of MOOCs, and where do you find the source of information	<i>Good,</i>	<i>Bad,</i>
Q2	How much do you think MOOC Learning will increase your knowledge?	<i>Like,</i>	<i>Nothing,</i>
Q3	Like and Dislike of MOOC Course	<i>Happy,</i>	<i>Dislike,</i>
Q4	What you think this MOOC Learning will help for your experience	<i>Great,</i>	<i>Don't like,</i>
Q5	Which is the more interesting part of learning in MOOC.	<i>Helpful,</i>	<i>Unhappy,</i>
Q6	As a facilitator how you can enrich this MOOC Course?	<i>Useful,</i>	<i>Not</i>
Q7	MOOC Course can also increase the credit points, how it can increase.	<i>Understandable,</i>	<i>Interesting,</i>
Q8	Any concern or suggestion to increase this MOOC Course?	<i>Easy,</i>	<i>Not easy,</i>
		<i>Excellent,</i>	<i>Low,</i>
		<i>Interesting</i>	<i>Less,</i>
			<i>Missing</i>

Data sources and analysis

A survey with open ended questions was sent to the participants, in the form of qualities survey tool after the MOOC course ended. Some qualitative questions were prepared and analysed and few coding were given for the qualitative answer whichever we have collected and analysed (Charmaz, 2006). Development of codes has done through codebook of (Liu et al., 2014). Using R Programming any array is created of (31,8). Each column representing a question of 8, row representing individual performance 31 sample. Data cleaning is done double wide spaces are remove arrangement and all words are converted into lowercase. Some common words don't give meaning are removed by stop words (Occurrence of unusual message). The codes were verified,

modified, and or refined. There is balance created between positive words and negative words, which included:

(a) Positive aspect such as, if the students are happy with *positive words* like (*Good, Extremely Good, very much Like, Happy*) already with the questions like *facilitator, and active interaction, credits, course structure, content, or lack of feedback, experience*.

(b) Negative aspects such as, if the students are unhappy with the *negative words* like *Bad, very bad, dislike, nothing, not well, no concern* with the questions like *facilitator, and active interaction, credits, course structure, content, or lack of feedback, experience*, and coding process is done regularly by the research team to compare codes, data, themes and categories. To Re-analyse, re-frame the disagreement to reach the inter-reliability of 100%

Results and Discussion

To identify learner's perspectives towards different factors of MOOCs (*reliability, usability, information quality, knowledge, engagement, and performance*) post usage among the higher education students, R-Studio (R coding is done for Positive and Negative aspects)

From the above objective framed with the help of R Analysis, it is observed that there are two top reason among MOOC Learners, to choose multidisciplinary skill oriented courses, and getting themselves specialized in the subject in an unconventional method. Additionally, the study also found that the students are happy to pursue certificate courses in a more innovative and more flexible manner. In R analysis by using stop words the punctuations are removed and the data is refined to bring out *negative and positive aspect*. An array is created by using *positive and negative words*, and *subtraction* is done from *positive and negative* results. From the results the polarity is created if they are *positive* and *happy* with the above-mentioned factors (Learning experience, the facilitator, active interaction, course structure, content, or lack of feedback, experience). Then in vice-versa if they are *negative and unhappy* with the above-mentioned factors (Learning experience, the facilitator, active interaction, course structure, concern, content, or lack of feedback, experience).

For all the eight dimensions based on (Learning experience, the facilitator, active interaction, course structure and concept, concern, content, or lack of feedback, experience), for each question the positive and negative points are calculated and based upon the calculation for the dimension *Facilitator, course structure & concept* the students are unhappy.

Results shows that there is significance occurs in (Q3, Q7), because the respondents are not satisfied with the, Q3- Like and Dislike of the MOOC Concept, Q7- How can the MOOC Courses can increase the credit points.

Finally, world clouding analysis was carried out for all the eight questions to analyze which factors are highly significant. It was observed that Q1, Q2, Q4, Q5, Q6 and Q8 were found to be highly significant. Below figure 1.1 highlights the significance of Q2 –*How long MOOC courses can enhance the knowledge of the student*.

Figure 1. World cloud formation for Q2

working specialists who seek to learn new and/or update their knowledge and skills, particularly such chances and properties are free and not existing in their topographical regions.

The suppleness of the course schedule, trustworthiness of the teachers, and the quality of the resources are significant deliberations for students. Given the enormous number of contributors and their dissimilar knowledge goals and behaviours, the design of the interface for a MOOC distribution display place becomes significantly important. LMSs industrialized prior to the appearance of MOOCs must evolve to house the developing needs of MOOCs. Organizations and teachers who use such schemes should be aware of their boundaries and should find a way to make the steering simple and easy to use. We hope the findings of this study will provide the much-needed insights from students' standpoint about the current MOOC spectacles and donate to our sympathetic of MOOCs as a form of online instruction.

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Conflict of Interests

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