



A Mobile Social Accelerator in Education: A prospective panoramic study on SWAYAM MooC's

Mr. Sankaranarayanan K. B

Research Scholar

Dept. of Communication

PSG CAS, Coimbatore. India.

Dr. S. Kadeswaran

Assistant Prof.

Dept. of Visual Communication

PSG CAS, Coimbatore. India.

Dr. Jayaseelan. R

Assistant Prof.

Dept. of Visual Communication

PSG CAS, Coimbatore. India

ABSTRACT

Information and communication technology have ignited the fire for new and emerging ways for stimulating and gaining knowledge through Open Educational Resources (OER). As the result MOOC's came in being that paved the way for changing the entire perspective of online education system. SWAYAM is one of the MOOC's developed by Government of India in order to provide easy access, equity and quality education to all across the country. The SWAYAM Portal was then made known by putting into practice in universities and higher education institutes all over India. This study look at the awareness level of SWAYAM MooCs with along with its usefulness and ease of use applying Technological Acceptance Model. The study gives an alarming fact that there is low awareness of SWAYAM Courses among students in Higher secondary level, but a positive approach was observed among the students who have completed the courses after they joined colleges. Many of the students also opined about the lack of features in the delivery of contents compare to other MooCs. The limitation in getting in touch with the lecturer/teacher directly at the time of studying when doubts arise is one of the major gap students believe that lacks in the platform. They also opined that discussion forum provided by

the SWAYAM portal lacks timeliness. The study thereby concluded that there is a need of awareness for students to take on MOOCs from their high school level itself by giving ample time to adapt new age ICT tools. The upshot of the SWAYAM courses has to be conferred in future in order to measure the efficacy of SWAYAM MOOC's.

Keywords:, *E-learning, ICT, MOOCs, Online Courses, SWAYAM.*

1. INTRODUCTION

MooC Platform was first started by IIT Bombay in which they developed FOSS category courses to their students and later to all the educational institutions in India. According to a study it is seen that India stands second after U.S in terms of enrollment ratio in MooCs. Government of India Initiated SWAYAM (Study Webs of Active-learning for Young Aspiring Minds) MooC platform. It was a ground – breaking initiative of the Government aimed at providing quality education to learners who pursue higher education in the colleges and universities.

SWAYAM is a programme designed to achieve the three major principles of Education Policy viz., access, equity and quality. The aim is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to conduit the digital divide for students who have till now remained untouched by the digital revolution and not been able to join the mainstream of the knowledge economy [1]. The main aim of MooC courses in SWAYAM is to enable the learners to pursue the knowledge of their choice. Courses delivered through SWAYAM can be accessed free of cost to the learners, however learners wanting a SWAYAM certificate can register for the final proctored exams that come at a fee and attend in-person at designated centers' on specific dates. Eligibility for the certificate will be announced on the course page and learners will get certificates only if this passing criteria is matched. Universities/colleges approving credit transfer for these courses can use the marks/certificate obtained in these courses for the same. Popularizing SWAYAM was a huge task and UGC with the help of state, private and central universities across India spread the word thereby enabling a wider and bigger access to the student and faculties to avail the benefit of MooC. The present SWAYAM platform is developed by Ministry of Education and NPTEL, IIT Madras with the assistance from Google Inc. and Persistent Systems Ltd. [1]

1.1 TYPES OF MOOCS

The First type is cMOOCs which is based on connectivism. It is created for emphasizing connecting learners called as connectivist MOOC and put together the scheme and platform originally visualized by George Siemens. Second one is xMOOCs—They have their background in the development of open

courseware and open educational resources. xMOOCs are generally offered by universities in collaboration with a commercial organization/company whose aim is to gain profit. xMOOCs are online versions of traditional learning formats (lecture, instruction, discussion, etc.) on proprietary specialist software platforms owned by independent firms. [2]

1.2 cMOOC's

Learners are fully responsible for the progress they make in cMOOCs. The learners can learn and take exams on their convenience. They start to build personal learning network through nodes and connections [3]. First cMOOCs were similar to the environments denoted as personal learning networks. cMOOCs helps the learner to study at their pace and convenience rather than limiting them to certain time or deadlines which eventually results in a stress free learning environment [4]. Even though there are advantages to these kind of learning process, there are many disadvantages also, where the learners may drop the courses in-between or they may complete the course for a name sake and get certification without proper learning etc.

1.3 xMOOC's

A kind of distance education, xMOOCs follows traditional kind of teaching method where the instructor provides presentations or videos or instructions. xMOOCs are now considered to be successful than the cMOOCs. xMOOCs are basically systems in which each learner follows their course at their own pace [5].

Courseera, edX, Udemy, Khan academy, Udacity are some the well known xMOOCs. The learners can simply signup and register for a course and complete in their own pace by seeing the materials inside and completing the assignments and final MCQ/Q&A's can earn them a certificate. It can be paid or free sometimes depending upon the website/content provider.

1.4 SWAYAM

SWAYAM is a mobile and Web based platform. There are various courses from school to graduate level and FDP courses for Faculties as well. The main aim of SWAYAM Platform is to make the learners from remote/backward community, working professionals, college dropouts, multiple disabled students.

The Courses in SWAYAM Platforms are designed within four quadrants mainly e-content, e-tutorial, Web Resources, and self-assessment/evaluation. Total of 755 courses under 5 different categories are being offered at www.SWAYAM.gov.in. Out of which forty five programs under school category, fifteen certificate programs, twenty nine diploma programs, three hundred and eighty six undergraduate programs. The main advantage of SWAYAM is that it will provide great opportunity to learners to learn without

fearing from failure. [6] It's apparent that SWAYAM has a great future. This study opens up certain questions like How much Courses in SWAYAM will benefit college students? What are the key areas to be focused? So, from the view point of college student an in depth study is required to find the answer for above mentioned questions.

Nath and Karmakar, studied the impact of MOOC on HEI's in India and opined that India can adopt MOOC to improve the quality of higher education. Since students are less aware and lack of quality makes SWAYAM underrated. [7] Perryman and Seal, conducted a survey in india to study the attitude of learners towards OER and found that OER is popular because, Its free and handy to use at the same time self paced also.. (Lan & Hew, 2020) found that the learners pursue MooC courses in order to increase their knowledge in their respective fields. They also opined that learners who have completed MooC courses are more active than others who have not even enrolled for the MooC courses. [8] Paswan and Kumari found that for taking up MooCs and to increase the awareness about the SWAYAM platforms counseling sessions, personal contact programmes, workshops and school based activities were conducted by the authorities. The study also found out that the students are enrolled in UG and PG degree courses in SWAYAM followed by their skill based certification courses.[9] Anuradha found that roughly 30% private and 64% of Government institute students were engaged in IOT(internet of things) courses on MOOC. The study was conducted among 11 districts of Punjab. [10]

2. OBJECTIVES OF THE STUDY

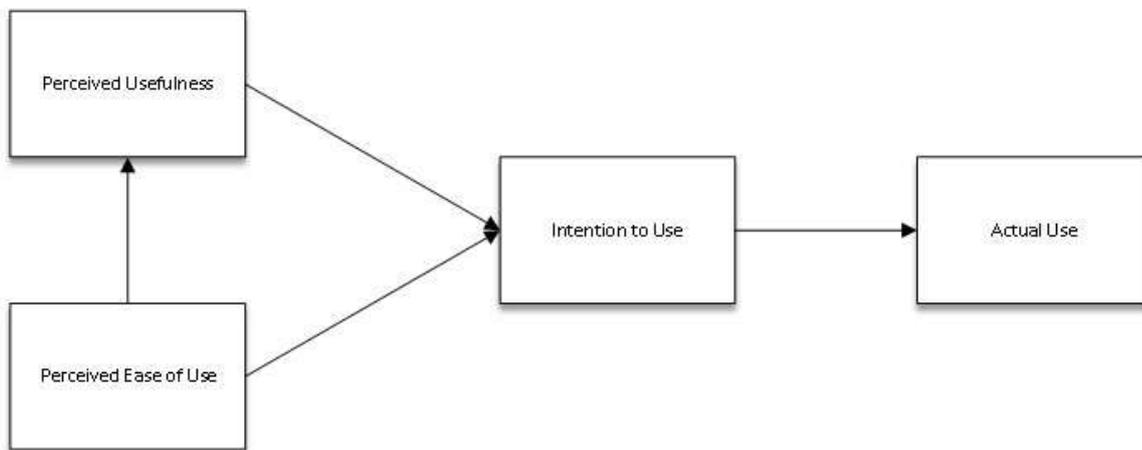
The present study tries to analyze SWAYAM MooCs, Its effectiveness and awareness under various discipline. Adapting TAM as a theoretical foundation to this study, researchers attempts to find out the awareness level and usability of SWAYAM MooCs by conducting a online questionnaire.

1. To understand the awareness level and usability among students of SWAYAM MooCs'.
2. To know the pro's and Con's of SWAYAM MooCs'.

3.1 TECHNOLOGY ACCEPTANCE MODEL

(Davis et al.) proposed TAM in the year 1989 when studying the acceptance of computers among employees in their respective workplaces when that new technology was introduced. Connections between emotional variables and technology usage and acceptance was discussed in the model. TAM has been very popular and widely applied model in the field of information technology and management fields soon after the introduction of computers and internet. So the model has been applied in many studies all over the world by many researchers in the field of ICT and Management, hereby making it more reliable and empirically strong. TAM can explain the acceptance level of a user towards a new technology keeping in

hand of their previous belief and experiences. Last but not the least the model can save lot of time and cost that's incurred during research [11].



[12]

4. METHODOLOGY

An online survey was conducted among the students of 3 colleges in outer Coimbatore city . Simple random sampling was accepted for the study. A structured closed ended questionnaire was prepared in Google Form. The questionnaire link was distributed through WhatsApp and Facebook. The researcher got 228 responses where 125 responses were selected for the study, which was completely filled. In this study the researchers are not trying to compare the face to face learning that occurs in classroom with online learning.

5. DATA ANALYSIS AND INTERPRETATION

5.1 Based on Gender

It is seen that most of the respondents are Boys (56.8%). (43.2%) are Girl respondents which are not very less in percentage.

	No	%
Boys	71	56.8
Girls	54	43.2
Total	125	100

Table 1

5.2 Based on Level of Study

It is seen that most of the respondents are UG Students (84%) while (16%) are from PG.

	No	%
UG	20	16
PG	105	84
Total	125	100

Table 2

5.3 Enrollment Ratio

All the respondents have enrolled to SWAYAM Courses.

	No	%
UG	100	80
PG	25	20
Total	125	100

Table 3

5.4 Awareness level of SWAYAM MooC

The result shows that almost 90% of the respondents are aware of MOOCs .The reason may be most of the respondents got awareness when induction programme was organized by the college before their regular academic classes began.

	No	%
Extremely Aware	99	80
Very Aware	13	10
Moderately Aware	10	8
Slightly Aware	3	2
Not at all Aware	0	0
Total	125	100

Table 4

5.5 Level of Interest towards pursuing SWAYAM Course

The results shows that everybody is interested in SWAYAM (97%). This interest reflects that there is a colossal movement towards online learning and acquiring new knowledge.

	No	%
Extremely Interested	107	85

Very Much Interested	15	12
Moderately Interested	3	3
Slightly Interested	0	0
Not at all Interested	0	0
Total	125	100

Table 5

5.6 Ease of Use of the SWAYAM Portal

It is seen that students are not having issues (96%) in using the SWAYAM portal. This reflects the fact that are students are not disturbed by any technical problems on using SWAYAM.

	No	%
Completely Satisfied	108	86
Very Satisfied	12	10
Moderately Satisfied	3	3
Slightly Satisfied	2	1
Not at all Satisfied	0	0
Total	125	100

Table 6

5.7 Satisfaction Level of Online Lectures

The results shows that Students (64%) are satisfied with the online lectures in SWAYAM portal. The reason behind this low satisfaction level may be due to various courses enrolled by the students. It may vary according to mode of delivery of the content creator.

	No	%
Completely Satisfied	80	64
Very Satisfied	23	19
Moderately Satisfied	7	5
Slightly Satisfied	10	8
Not at all Satisfied	5	4
Total	125	100

Table 7

5.8 Advantages of SWAYAM (Multiple Option)

Less competition & intensity
Self-Paced
Easy attendance
Time-Saving
Cost Saving

The Results Shows that Most of the Students (80%) have chosen all the five responses while (15%) selected only three advantages and (5%) selected only two of them.

	No	%
Four and Above	100	80
Three	23	25
Two	2	5
One	0	0
None of the Above	0	0
Total	125	100

Table 8

5.9 Dis -advantages of SWAYAM (Multiple Option)

No Face to Face Interaction among Peers and Teachers
Limited & Isolated
Loses Concentration & Lack of Internet Connection
Health Issues
Not Socialized

The Results Shows that Most of the Students (90%) have chosen all the five responses while (7%) selected only three disadvantages and (3%) selected only two of them.

	No	%
Four and Above	112	90

Three	9	7
Two	4	3
One	0	0
None of the Above	0	0
Total	125	100

Table 9

5.10 Most Interesting teaching process in SWAYAM

There are four quadrants that is used in SWAYAM. But (64 %) of the respondents have a preference of all the teaching processes among them video lecture with Presentation is the popular one (18%).

	No	%
Video Lecture	23	18
Transcripts/Reading Materials	6	5
Online Discussion forum	11	9
Self Assessment	5	4
All of the Above	80	64
Total	125	100

Table 10

6. DISCUSSION

The study which was conducted among the students who are using to the SWAYAM platforms gives a clear idea on the usefulness and ease of use of SWAYAM MooCs.

6.1 Perceived Ease of Use

The majority of the respondents stated that “Less Competition and Intensity, Easy attendance, Time and Cost saving, and self paced study” makes SWAYAM a perfect choice for online courses. Since its inception the government has tried to implement it in a slow and steady manner among HEI. Now many HEI’s has made it a part of curriculum to make the students acquire new skills and knowledge in their field of choice. The students were able to complete the courses according to their convenience also made the MooC a favorite point of study. Even though few minority of the respondents are not satisfied regarding the

satisfaction they get when they study the course. Its negligible, but still it has to take into account and make necessary changes in the coming years.

6.2 Perceived Usefulness

Video Lecture & Transcripts/Reading Materials helps the respondents in many ways. Once they complete the video lecture and start reading the materials they are able to remember the visuals that they have gone through and is able to understand and apply them practically. Online Discussion forum, Self Assessment tests after each module tests their knowledge and progress after each module. More preference is given to the discussion forums where the students from different background is able to post their queries and get answers from their online peer groups who have joined the course or the course instructor themselves.

6.3 Intent to Use

The respondents intention to use the SWAYAM MooCs starts from the classroom. Most of them became aware about SWAYAM MooCs once and only when they started collegiate education and got orientation about that. They were unaware about this during their secondary level education at schools. But it doesn't stop them from using the platform, rather they became aware and started to use it regularly for their overall development.

6.4 Actual Use

Amidst of all these, the respondents are able to adopt the technology and also use them easily like any other new technology. Its actual uses can have various other reasons like, previous experiences, help from peers to getting used to the technology, Motivation from teachers and friends, Social identity etc.

The major use of SWAYAM always lies in upgrading one knowledge in their own pace without any fees or nominal fee if they want to be certified. One of the major attraction provided by the government is that fee for some courses are refunded to the candidate if they score 40% and above in the final exam and successful completion of the course.

7. CONCLUSION

This study brings out an insight to the awareness, ease and use of SWAYAM among the college students. The advantages of MooCs over conventional style of teaching learning is remarkable. Even though the initiative of Government of India was to reach out for the marginalized group of students who don't have access for free knowledge in Higher Education, the SWAYAM has provided enormous chances to the students to learn without having fear of failure. The study gives an alarming fact that there is low awareness of SWAYAM Courses among students before they join for UG courses. But a positive approach

was observed among the students after they join Colleges and undergo orientation programmes about MooCs and those who have completed the courses. Many of the students also opined about the lack of features in the delivery of contents compare to other MooCs. One of the major problem pointed out by the students is the limitation in getting in touch with the lecturer/teacher directly at the time of studying when doubts arise. The discussion forum provided by the SWAYAM portal lacks timeliness. The study thereby concluded that there is a need of awareness for students to take on MOOCs from their high school level itself by giving ample time to adapt new age ICT tools. Also the outcome of the SWAYAM courses has to be discussed in coming years among the students in order to measure the efficacy of SWAYAM MOOC's. The main aim of this is to bring out the results to the concerned authority or policy decision makers to improve the awareness, usability and usefulness among users' and make it more interesting and to make use of the MooCs to increase their knowledge free and without fear. Researchers also recommends that some more interactive and novel teaching modus of operandi should be introduced in order to ensure that learners remain committed to their courses. It's not only for the conventional subjects like math and social science but also for new age courses like AI, Data Science Etc. The Government should also take initiatives to promote SWAYAM through advertisements various media and in schools as well. At the outset SWAYAM should also address the gap between the rural and urban students as well.

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