UTILITY OF MASSIVE OPEN ONLINE COURSES: VIEWS OF UNIVERSITY TEACHERS AND STUDENTS

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ABSTRACT

Massive Open Online Courses (MOOCs) are getting popularity among the stake holders of education as they are assets for the learners as well as teachers. The emergence of education hubs and the fast expansion of MOOCs is a reflection of the changing landscape of cross-border higher education. The online mode of distant education has become very easy and expedited using MOOCs. MOOCs are part of latest development in distance education benefitting learners from different locations and diverse academic backgrounds. This paper is an effort to give broader idea of perception of benefits of usage of MOOCs in Universities. Descriptive exploratory survey design was employed in the present study to answer the research questions. The study was carried out in private and government universities and institutes of higher education, selected region wise from eleven districts of Punjab, and also from the Union Territory of Chandigarh. There were a total of 67 heads 174 teachers and 1058 students who provided data for the study. The findings of the present study revealed that the percentage of government university students taking advantage of MOOCs is higher as compared to the students of private universities. Benefits and usefulness of MOOCs to students as highlighted by 68.09% private and 70% university teachers are: Wider exposure of knowledge from worldwide sources; enhancement of new techniques and skill enhancement was stated by private and government university teachers. MOOCs are required to cater the growing needs of higher education sector in development of skills. MOOCs help in bridging skill gap by providing job oriented training and skills.

Keywords: MOOCs, higher education, skill development, private and government universities, knowledge, employability, Benefits

INTRODUCTION

Massive open online courses (MOOCs) are a recent addition to the range of online learning. Massive Open Online Course (MOOC) has changed the educational scenario paradigmatically. MOOCs have the potential to create massive opportunities for students, employers and educators by delivering quality learning experiences to students from diverse disciplines. It is defined as an online course with unlimited access which are available free of cost anywhere in the world (McAuley et al., 2010; Kop et al., 2011). MOOCs are cost effective for learners and foster participation via free online courses (though a fee is often charged when a MOOC is offered with certificates). MOOCs are web based courses accessed by anyone and anywhere in the world providing intrinsic motivation to learners (Jordan, 2014). Shroff et al. (2008) found that students stay highly motivated in online environment as compared to on campus environment. Moocs provide opportunities to participants in open and free learning environment catering to their goals and interests (Wang & Baker, 2015).

Stewart (2010) stated that "a MOOC is a web based course with open enrollment without any charges, publicly-shared curriculum and open-ended outcomes". A commonly agreed definition of MOOCs is "online courses designed for large number of participants,

accessible by anyone anywhere as long as they have an internet connection, is open to everyone without entry qualifications, and offer a full/complete course experience online for free" (Jansen & Schuwer, 2015).

MOOC allows practitioners to experiment with pedagogy such as integrating it with on campus courses resulting in shared opinions and discussions from different parts of the world and/or by using flipped classrooms (Docq & Ella, 2015). MOOCs are proven to be more beneficial for on campus students as an interactive and innovative way of learning skills needed for job market (Roland et al., 2015).

Israel (2015) found that the performance of students is slightly better using MOOCs than in traditional class environment. Despite the fact that there are number of challenges in synchronizing MOOCs in-class traditional courses, MOOCs have potential to provide resource materials in the form of video lectures, quizzes, and assignments to students.

It seems that MOOCs have tremendous potential to explore new pedagogical practices, business models, and flexible learning paths in their provision to change higher education scene by improving teaching and learning to think creatively and innovatively and by encouraging institutions to use these courses to reinforce their courses (Yuan & Powell, 2013). Curriculum delivery models and courses need to be truly flexible and accessible by present day universities. (Carr, 2012). In order to reinvent higher education, changing the landscape of higher education necessarily demands blending of virtual classrooms with real classrooms. In fact, MOOCs acts as a platform to provide an innovation and flexibility in pedagogical practices and restructuring study programmes and academic process (Varghese, 2014).

1. Objective of the study

To study views of government and private university teachers regarding importance and benefits of studying MOOCs and Students view's regarding usefulness of MOOCs.

2. Research Questions of the study

- Are the students pursuing online courses along with their regular courses ?
- To what extent MOOCs is useful for Technical and Professional Graduates?
- What are the benefits and importance of MOOCs according to university teachers?

2.1 Method and Instruments

In the present study the sampling technique used was both incidental and purposive in nature. It comprised of all the students present in class in the subjects concerned, and were taken as such at the time of data collection.

2.2 Field of Investigation

The study was carried out in private and government universities and institutes of higher education selected region wise from eleven districts of Punjab, and also from the union territory of Chandigarh. Amritsar, Gurdaspur, Hoshiarpur, Patiala, Ropar, Mohali, Ludhiana, Fatehgarh Sahib, Jalandhar, Kapurthala, Nawanshahr and Chandigarh.

2.3 Limitation of study

The study was conducted in only in some of the institutions government and private in the State of Punjab (India). It was limited to only disciplines of management and engineering and technology.

3. Sampling Framework

3.1 Sample size of the Teachers

It comprised a total of 174 teachers: 94 teachers from private and 80 teachers from government universities who formed the sample for the present study.

3.2 Sample of the Students

A total of 1058 final year students were selected, 594 from private, and 464 from government universities, representing the field of Management, Pharmacy, Architecture, and ICT and Engineering.

The data collected from the heads and the teachers mainly involved interactive/interview sessions held individually with them.

3.3 Data collected from the Students

The data were collected from the final year students from their specialised field personally from each

discipline/subject/department using questionnaire as technique.

As per requirement of the study, the data were collected by employing technique of specially designed questionnaires and interview schedules prepared for the heads, teachers and the students.

The entire data obtained from the three sources viz the heads, the teachers, and the students, required simple analysis of finding percentages of the responses elicited from the respondents.

4. Results and Discussion

To enrich the curricular activities, the graduate students these days have multiple options to choose from. They have access to best of the universities in the world, best of professors and international faculty to interact with and advanced knowledge in any area a student may wish to secure knowledge from the internet.

Keeping in view the respondents in the present study who are from technical and professional fields, an attempt was made to find out whether these students were taking online courses to supplement or to enrich their knowledge. So a couple of questions were addressed to them in this connection whether they were taking any online courses through MOOCs, and if so, to mention the courses.

5. Research Question 1

Are the students pursuing online courses along with their regular courses ?

5.1 Pursuing Online Courses: MOOCs

Out of 594 students from private universities, only 52 (8.76%); and out of 464 government universities only 42 (9.05%) students were engaged in enriching their knowledge and also their curriculum vitae. In all only 94 (8.88%) students out of a total 1058, were enrolled in MOOCs.

5.2 Details of Courses undertaken by Students

5.2.1 IOT (Internet of Things)

In this course, 20 (30.86%) private and 27 (64.29%) students of government universities had enrolled themselves; making it to a total of 94 (8.88%) only.

5.2.2 Computer Course, Java, Technical Communication:

In this, private university students numbered 3 (5.77%); and in government university there were only 2 (4.76%) students engaged in this course.

5.2.3 Marketing Design

Only one student each from both type of universities mentioned about this course which comes to only 2.13% of students.

5.2.4 E-learning

The table entries reveal only one student in each of these courses (from government universities). These are:

- TOC (Theory of Constraints)
- CD (Computational Dynamics
- AI (Artificial Intelligence)
- ED (Education)
- ANSYS: Simulation Software

In all out of 52 students who said 'yes' only 24 (46.15%) students from private universities mentioned the course they were studying. Out of 42 students of government universities who said 'yes', 34 (80.95%) gave the details of the courses they were pursuing through MOOCs. It makes it to (24+34=58) students from both type of institutes doing higher education through online courses.

6. Research Question 2

To what extent MOOCs is useful for technical and professional graduation ?

In continuation regarding the MOOCs, students were asked in what way online courses are useful along with their regular courses in the institution.

The usefulness of MOOCs as mentioned by the students is as follows:

6.1 To Enhance Knowledge, Learn New Technique, Research

MOOCs, enables the students to enhance their knowledge, learn and acquire new techniques, and find new avenues of research. These were the uses detailed by 85 (14.31%) private, and 36 (7.76%) government universities students.

6.2 Wider exposure of International Faculty

Was another benefit of these courses as explained by 10 (1.68%) private and 5 (1.08%) government university students.

6.3 Add to CV, for employment purpose

It was the response of 8 (1.35%) private and 7 (1.51%) government university students.

6.4 Soft skills

Personality development, confidence building were also the responses made by 4 (0.67%) and 4 (0.86%) students from both type of institutions.

These were the only relevant responses of 107 private and 52 government universities students.

6.5 Vague Responses

There were 190 vague responses from 102 private and 88 government university students which comes to 17.96% of the total responses.

6.6 No Response

In this category, there were 385 (64.81%) from private and 324 (69.83%) students from government universities. On the whole it was 67.01%

7. Research Question: 3

What are benefits and importance of MOOCs according to university teachers?

In technical and professional education, MOOCs is gaining importance and impetus. In order to find out whether and to what extent MOOCs is beneficial to the students, the teachers were asked questions.

The benefits of MOOC's was affirmed by 64 (68.09%) private and 56 (70%) government university teachers making it to a total of 120 (69%), who considered the benefits of MOOCs. While 31.1% did not think of any benefits of this system.

The benefits of MOOCs were further elaborated by the teachers as:

7.1 Wider exposure to knowledge from all sources

As the Portals to knowledge are open 24x7; there is a wider perspective and exposure of knowledge on topics of interest from worldwide experts/professors, along with free access to technologies, and learning beyond curriculum. These were some of the benefits highlighted by 29 (45.31%) private; and 26 (46.43%) teachers from government university departments.

7.2 Skill Enhancement

Private university departments (12) (18.75%) and 5 (8.93%) teachers from government university could verbalise these benefits for the students.

7.3 No Response

It is strange that from among those teachers who found MOOCs beneficial for students some could not explain how the students are benefitted by these courses.

As far as the Utility of MOOCs is concerned, these are open to all, there is free access to technology based courses offered by professors of top schools sharing knowledge with all. There is improvement in pedagogical techniques.

It is easy to monitor learners' performance. Learning beyond given curriculum, supplementing knowledge, enhancement of skills, creative learning, and to top all-multi disciplinary subjects can be learned according to individual timeline.

8. Results

8.1 Pursuing online courses through MOOCs

- Online courses through MOOCs were being pursued by 8.76% private, and 9.05% government university students.
- Majority of the students i.e.30.86% private, and 64.29% students in government universities were engaged in IOT (Internet of Things) courses.

8.2 Usefulness of MOOCs according to students

- 14.31% students from private and 7.76% students from government universities found the courses useful to enhance knowledge, new techniques and researches.

8.3 Benefits of MOOCs as stated by teachers

- Wider exposure of knowledge from worldwide sources as reported by 45.31% private, and 46.3% government university teachers.
- Skill enhancement was mentioned by 18.75%, and 8.93% teachers from private and government universities.

Conclusion

MOOCs offers several benefits: increases instructor leverage, student throughput, student mastery, student engagement, offer students (especially postgraduate students) opportunity to learn key disciplines, facilitate coaching of concepts and tools, and serve as bridging courses. The concerns are raised, as many aspects of traditional classes do not work in a MOOC, such as small-group discussions and face-to-face time with instructors. However, Instructional design can play an important role in effective online pedagogies involving interactive activities and engaging discussions in MOOCs. Student-centred activities can also lead to a better engagement. Dependency on teachers will be gradually minimised and students will be in position to inculcate habit of self learning. This will help in creating scientific outlook and learning can be maximised through all sources from which ever source it is available. Despite the challenges that have been highlighted, MOOC can create opportunities in education for all. MOOCs enables better access to people with higher educational qualification as compared to those who are not qualified and prepares themselves for self learning, as new age industry is looking for technical and professionals with relevant skills and updated knowledge. MOOCs is free of cost and thus serves as a substitute to higher education which cater to needs of knowledge based on society contributing to their professional development In order to bridge skill gaps Employers are preferring MOOCs in this era of globalization to meet the needs of labour market. Till now only premier institutes like IIT, IIM, and JNU are offering support in providing MOOCs, at the regional institutes are still shying away due to lack of resources and trained faculty. Indian universities should focus on multidisciplinary approach in higher education to broaden intellectual horizons of faculty which will help to enhance skill development and broaden educational horizons as well. Now-a-days, Indian government has framed policy draft to promote interdisciplinary studies in higher educational system.

Recommendations of the Study

Due to rapid advancement of technology and the demands of the global market, there is a continuous need to update the curriculum, to make it relevant to achieve the objectives of the recipients of education.

To design a well-thought curriculum in developing MOOC the following are necessary:

- Focus more on practical knowledge, hands-on experience; industrial visits, and industry-linked internship programmes. These are essential inputs to ensure quality in technical education which can be ensured using MOOCs in traditional learning environment.
- In view of the limited opportunities to be employable in the global market, there is a need to strengthen the connection between the skills and aptitudes of the graduates, with that of the requirements of the industry.

The institutions need to provide maximum opportunities to choose electives from diversified options to meet their objectives.

Although the teachers are involved in designing the curriculum, the inputs provided in the curriculum are assessed to fulfil the requirements of the subject, yet the curricula lack in catering to the demands of the industry. The university and its stakeholders should be ready in order to make MOOCs relevant.

In view of the lower employability of technical and professional graduates, there is an urgent need to offer industry oriented internship programmes;

- To focus more on providing necessary work related technical (hard) and non-technical professional (soft skills);
- To prepare well honed graduates;
- To use MOOCs to fill the gaps of shortage of faculty and quality of pedagogy.

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