The potential and challenges of MOOCs in Pakistan: a perspective of students and faculty

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Abstract

Purpose – The birth of massive open online courses (MOOCs) has instantly drawn the attention of scholars, academicians and learners. Millions of participants are learning through this freely accessible model of education. The purpose of this paper is to review the development of MOOCs, its characteristics and to explore its potential and challenges in Pakistan particularly.

Design/methodology/approach – The data were collected through interviews and focus group, and the respondents had completed at least one MOOC offering. This research used content and thematic analysis with the triangulation of methods and sources.

Findings – The finding of this study reflects that MOOCs are inspiring great number of learners in Pakistan despite of factors impeding the surge of e-learning. MOOCs in regional languages with better electricity and internet connectivity could be very useful for the rural areas' people but it requires extra ordinary interest from government and academicians.

Research limitations/implications – This is an exploratory qualitative study highlighting the potential and challenges of MOOCs from the perspective of faculty and students. However, it does not incorporate the views of university officials. Similar study could consider university officials and university owner as respondents. In addition, future studies could also investigate the factors inhibiting completion of MOOCs.

Originality/value – Despite of the sharp rise of published literature on MOOCs, there is less contribution from the developing countries. This research enables us to develop better understanding of the potential and challenges of MOOCs in the social context of Pakistan.

Keywords Developing country, Human development, Open and distance education (ODE), Massive open online courses, Online learning, Free education

Paper type Research paper

1. Introduction

The revolution in information technology dramatically impacted the lives of billions of human beings especially through its influential tool of internet (Nie and Erbring, 2000). This storm of wireless technology affected numbers of domains including education. Education is considered very important not only for the personal development of an individual but also for the development of any society. Schools, colleges and universities have been spearheading this endeavor for hundreds of years.

However, it is not feasible for everyone to get education from universities, especially top universities, not even for those who live in developed parts of the world because of many reasons (Tobin, 2015). Therefore, some educators conceived the brilliant idea of massive open online courses (MOOCs) to provide meaningful learning experience to anyone around

the globe for free. The term MOOC was first coined in 2008 by Dave Cormier of the
University of Prince Edward Island (Miguel *et al.*, 2013).

MOOCs are increasingly considered as an opportunity for millions of people who want
access to the higher education for free or at low cost. Although academic institutions are
jubilantly jumping on to the digital bandwagon of MOOCs, the majestic success of MOOCs in
the recent years has also been creating panic among the university officials who believe that
this free and low cost model of education would cannibalize their share (Christensen *et al.*, 2014).

Distance learning education is not new to Pakistan. Allama Iqbal Open University was
the first in Asia to start distance education in 1974 which has currently 1.3 million enrolled
students (AIOU, 2016). Pakistan has got huge MOOC potential as a developing country
where most of its students cannot afford to study at world's premier academic institutions.

EdX, a joint venture of Harvard and MIT, and a premier MOOC provider have got nearly
90,000 students from Pakistan. EdX has also established international regional office in
Lahore. In addition, Anand Agarwal, CEO of edX, has expressed his interest in an interview
to collaborate with Pakistani universities (Ahmed, 2016a).

This research idea emanated from the personal experience and interest of researcher[1]
when I enrolled in MOOC offering of the University of Edinburgh in 2012; this was the same
year when *The New York Times* labeled it as the year of MOOCs because of the sharp rise in
the MOOC enrollments worldwide (Pappano, 2012).

Despite of the considerable boost of MOOCs and its published literature in recent years,
there is dearth of research and insight from developing countries. The objective of this
research paper is to review the development of MOOCs, its characteristics in general and to
explore its potential and challenges in Pakistan particularly. This research study would help
us to understand that what students and teachers in Pakistan think of this massive rise of
this online education genie (MOOCs).

For this exploratory qualitative study, the data collection was done once from multiple
groups, hence it was a cross-sectional study. Focus group was conducted with students and
interviews were used to collect data from faculty members. The collected data were recorded
and transcribed. We used thematic and content analysis to draw conclusions.

Finally, we concluded this paper with some useful insight that facilitate us to create a better
comprehension of MOOC potential and challenges in general and particularly in Pakistan.

2. Literature review

With the economic progress of mankind and development of new technologies, new medium
of imparting knowledge evolved. The emergence of MOOCs exploded in the year 2012
primarily through the US universities' platforms such as www.udacity.com, www.coursera.
org and www.edx.org (Davis *et al.*, 2014). Many of the premier British universities joined
futurelearn.com to emulate their Americans counterparts. FutureLearn was the first British
MOOC platform. However, some British institutions such as the University of London and
Edinburgh were already offering courses through Coursera (Parry, 2012).

These platforms are result of genuine endeavors of IT experts, scholars and professors
of academic institutions (Liyanagunawardena *et al.*, 2013). It started not long ago but its
success has been phenomenal in terms of participation. Now millions of people have been
learning through these platforms. In addition, Wong *et al.* (2016) analyzed research
development in the area of distance education. They conducted content analysis of 288
research articles published in online and distance learning peer-reviewed journals.
They noted that MOOCs were the most frequent keyword emerging in 18 percent of their
selected articles.

Some universities are using MOOCs along with the face-to-face classes as blending
teaching is increasingly evolving in this digital era (Bo Tso, 2015). It gives excellent
opportunity to the students if their university is offering. However, most of the MOOCs are

based upon a freemium business model where the basic product or service is provided for free but money is charged for additional services (Dellarocas and Van Alstyne, 2013). In addition, Ming Wong (2015) explored the effect of the pedagogic orientation of MOOC platform on their courses. They examined 32 courses on the Coursera, edX, FutureLearn and openlearning. This study suggests that the platform offering MOOCs invariably influences the delivery of the MOOCs. As edX and Coursera comprehensively focused videos while FutureLearn and openlearning focused more on the participant interaction. Moreover, Kalman (2014) analyze that the distance learning education is neither new nor the pedagogic and technological approaches applied are unique. However, the concept of free education from top universities has sparked the general interest.

Altbach (2014) see the advent of the MOOCs as some form of neocolonialism where English-speaking academic cultures are dominating the MOOCs. But the millions of learners around the world are not much concerned with pedagogical philosophy and nature of knowledge they are acquiring. On the other hand, they are appreciating the MOOCs capacity to provide opportunities to everyone. Regardless of national or financial background, one can enroll in the courses through the internet access. It also opens the doors for the learners of developing countries who want to refine their skills or even start up their own ventures. According to Christensen *et al.* (2014), it is great opportunity for the business schools to expand in to new markets as nearly half of the MOOC offerings of Wharton School of the University of Pennsylvania have international enrollments. Furthermore, Ming Wong (2015) suggested that MOOCs help instructor to experiment his/her online teaching to large number of diverse learners. Some instructors have found MOOC experience useful for refining and enhancing their teaching skills.

MOOCs adeptly question traditional teaching method where instructor asks students whether they understand the topic and clever ones nods their heads and he/she moves on with the lecture. All five fingers are not the same, in almost every class, there are some students who hesitate to ask questions. This platform smartly addresses this crucial issue by putting video in the recorded lecture form, enabling students to access it numerous times. According to Zapalska and Brozik (2006), the instructional design in online educations must oversee different individual learning styles. Student learning is more effective if it is consistent with his/her learning styles.

Discussion forums are another exciting and informative feature of MOOCs. Students put up their questions in threaded discussions and receive numbers of responses from their fellow students dispersed around the globe (Welsh and Dragusin, 2013). While late joiners might experience problems in understanding the course requirements, and in such cases, the help from older participants was recorded very useful (Waite *et al.*, 2013). In many courses, students from the same town and city form groups for the in-depth discussions. Li *et al.* (2014) also reported on the longitudinal study that the study group especially the one co-located had a pleasing experience in learning difficult topics. Moreover, self-management is *sine qua non* for digital learners in this information age. It will help learners to enhance learning efficiency and effectiveness in communities by developing better comprehension of valuable strategies and related concepts (Zhixian and Jianhua, 2011).

The participation certificates from top universities breed sense of achievement and encourage students to continue education. In some accredited courses, you automatically get the credits for the university education. For example, students can get undergraduate credits for some of the Coursera courses offered by Duke University, University of California, Irvine and University of Pennsylvania (Coursera, 2013). In UK, FutureLearn introduced its first MOOC having university credits, an offering by the University of Leeds that will allow student to have ten credits for its respected degree (Havergal, 2016).

Business schools need to watch closely how the genie of MOOCs is going to behave in the future. Clayton Christensen, a prominent Harvard Business School Professor envisaged that

the growth of MOOCs would shake up the foundations of business schools in the next decade and lead many of them to the bankruptcy (Kaplan and Haenlein, 2016).

The virtual platform no-pay MBA claims that it provides opportunity for those motivated individuals who ever considered MBA but fees or flexibility hampered their admission. It uses MOOCs to give a learning experience of top business schools, i.e. MIT, Harvard and Yale with the cost less than US$1,000. Their flexible program allows you to learn at your own pace. It has 14 core courses, three electives and four concentration electives. The members work together for group assignments and projects, and also meet for video discussion on a regular basis with professionals, entrepreneur and professors (Pickard, 2015).

Despite of MOOC appreciation, there has been some serious consideration, such as the assessment methodology of enrolled students has been raising questions for the MOOC credibility. For many of the courses, peer-reviewed assignments are mandatory as it is impossible for instructors to evaluate individual work. In this regard, Krause (2013) found out that some learners got commendable feedback despite of submitting substandard work. Another big challenge for the MOOCs is to ensure that the student taking the exam is the same one who is enrolled. Some experts believe that online examination with webcam could be suitable option. If their computer is locked down to use any other program or documents, this can enhance effectiveness of the invigilation (Coughlan, 2016).

Knox (2014), a Coursera Instructor interpreted the response of many participants as anxiety and burdensome because of the mass participation. Zhenghao *et al.* (2015) in a *Harvard Business Review* article claimed that over quarter of billion people had enrolled in MOOCs but expectation went down as research showed that only small proportion of enrolled students went on to complete the course (Ho *et al.*, 2014). On contrary, Frick (2016) argues that we should not use dropout rate to claim that MOOC does not work. According to him, the other way to use MOOCs is to scan all the materials and lecture but not necessarily taking quizzes and submitting assignments. The disadvantage is evident, one would not get certificate. The advantages are that one has not got the pressure to complete the assignments and can learn at one's own pace.

Zemsky (2014) foresees that MOOCs have been losing ground as it has nothing much to offer from technological and pedagogical perspective. In addition, many business leaders think that the university graduates lack essential skills to perform the job. In this vein, MOOCs are not impacting the business world significantly because the courses are designed by the same academics who cater their own interests rather than focusing on the skills sought by industries (Weise, 2014).

In case of Pakistan, many students attempt to go to English-speaking countries particularly Australia, England and New Zealand for the higher education where securing good bands in International English Language Testing System (IELTS) is fundamental requisite for the admission. British Council which is the awarding body of IELTS certificates has launched its free course through FutureLearn, i.e. Understanding IELTS: Techniques for English Language Tests (Coughlan, 2015). This course is blessing for students who want to prepare for IELTS, as there is lack of established and standardized platform for learning English linguistic skills for higher education. Furthermore, it also prevents students to pay huge fees to substandard English language institutions.

Moreover, Agha Khan University was the first in Pakistan to launch three-week long MOOCs in 2014 on Bioinformatics of Drug Design (Abidi *et al.*, 2016). They launched another course from the same platform in the year 2016. The organizers highlighted many factors in the context of Pakistani society for launching successful MOOC programs. First, faculty members need to leave comfort zone and review their approach in the light of global context. Second, the course design must be astutely done as course must be learner friendly with technological factor considerations.

Furthermore, the current Vice Chancellor of Information Technology University (ITU) and former Massachusetts Institute Technology Instructor Dr Umar Saif announced that ITU is working out with edX to launch online courses (Saif, 2016).

3. Methodology of research

This exploratory research was conducted for developing better understanding of the researchers (Babbie, 2008). Interpretivist paradigm with cross-sectional research design was assumed to look at the potential of MOOCs in Pakistan from people who are already aware of MOOCs. For this purpose, two set of respondents were selected: one included seven students for focus group and another comprised four faculty members for the interviews. All the individuals selected had completed at least one MOOC. Almost all of the students have done one MOOC while a student has done three MOOCs. Among faculty, all have done either eight or more MOOCs. In addition, the methodology and philosophy of qualitative study is different than quantitative. According to Marshall (1996), if the research question is adequately answered then the sample size is not an issue in qualitative study. Even for very detailed studies it could be in single figures.

The participants were requested to fill in a self-administered questionnaire requesting for personal information and brief details about MOOC already attended, before the start of the focus group or interview. The link for this questionnaire was sent to the respondents through digital means.

Following an interpretive strategy, respondents were asked to comment freely on the potential of MOOCs in Pakistan. Following were the main research questions:

RQ1. How do you foresee the potential of MOOCs in Pakistan?

RQ2. What will be the challenges with regard to MOOCs implementation in national and regional languages in Pakistan by Pakistani universities/professors?

RQ3. What merits with regard to benefits, skills, advantages and demerits with regard to challenges, difficulties, practical and logistic problems the MOOCs will have?

RQ4. What do you like/dislike about MOOCs?

These open-ended questions were asked through focus group discussion among students and through interviews from faculty. The focus group discussion last for around 1 hour 23 minutes while each interview ran from around 12-18 minutes. We had reached saturation after conducting focus group and four interviews, and according to one of the most prominent qualitative scholars, Creswell (1998), there are no rules to determine the sample size what we consider is a saturation point in the qualitative study where the new themes stop emerging. Furthermore, all discussion and interviews were recorded, transcribed and read several times to identify emerging themes or discussion falling in already identified themes. It was seen that respondents' answers had both similarities and differences. Both thematic (Hycner, 1985) and content (Silverman, 2014) analyses were conducted as themes were already derived from the literature review and few were finalized during the analysis process. The triangulations of methods and sources were conducted – triangulation of methods, i.e. the focus group and interviews; and triangulation of sources, i.e. students and faculty.

4. Qualitative findings

Findings are presented based on both thematic (Hycner, 1985) and content (Silverman, 2014) analyses which were conducted along with the triangulation of methods, i.e. the focus group and interviews; and triangulation of sources, i.e. students and faculty.

4.1 MOOCs potential in Pakistan

Many respondents foresee MOOCs enjoying good future in Pakistan because it makes education affordable for masses. It can play positive role in the human development without huge investment in the shape of state-of-the-art buildings and it also saves considerable amount of resources. In addition, respondents also highlighted that most of the courses offered by MOOCs are from top academic institutions of the world for free. It enables us to acquire knowledge from the best professors and scholars of contemporaneous era. Apart from subject knowledge, it also boosts their general confidence level.

Couple of respondents mentioned that distance education is not new to Pakistan as Allama Iqbal Open University has been doing it for more than four decades through national television channels. As one of the respondents, Mr Khurram Adeel Sheikh said, "It is the same old candy in the new wrapping." On the contrary, many of the respondents regarded teaching methodology of MOOCs are nontraditional and learner oriented. The lectures are recorded and uploaded in bite size videos which are easy for students to digest. They can download it and play it as many times as they want; a deed which is hard to do during real-time lectures. Moreover, it also offers opportunity to discuss topics and ideas through discussion forums. Furthermore, many of these programs are self-paced which helps to integrate every type of learners in MOOC. As one of the students in discussion forum responded, in his words, "I enrolled in MOOCs because I wanted pristine knowledge from best professors not certificates. I only downloaded the lectures and read books but never appeared in quizzes and assignments. Of course, not many people want to do quizzes in summers break."

According to one of the university professor we interviewed, universities have to follow certain guidelines and timelines for the courses and academic programs. At times, it makes it hard for universities to incorporate all the topics in which a student could be interested to learn. Second, commencement of courses needs to have certain number of students at Pakistani universities which make students to withdraw if they do not meet quantitative requirement of the class. However, MOOCs provide learners the platform to choose the course which could be useful for the individual. Importantly, it enables learners to enjoy wide range of courses including the ones not taught in Pakistan but could see development in future.

MOOCs could be beneficial for graduates as well, as they cannot always go back to university to resume the studies. Similarly, there are some other courses as well whose teachers are not available or maybe that professor from which you are trying to get your lessons is not available. As one of the respondents uttered he wants to learn the course for artificial intelligence and if he wants to learn under the supervision of the best MIT professors so he is left with few choices. He can either join MIT but for which he might not have the IQ level or join MOOC offering where he can do it for free and also meet with hundreds and thousands of students of similar interest. This is a huge benefit which is provided by these learning platforms.

Many respondents regarded two factors financial resources and location as important factors when it comes to knowledge acquisition in the context of Pakistani society. In Pakistan, it is common to see families moving from villages and smaller towns to cities for the education of their children and most of them come from prosperous background because not everyone can afford living in the city. However, MOOCs have provided the opportunity to learn everyone at their doorsteps.

4.2 Challenges

Some respondents from the focus group concerned that MOOCs' ability to attract large number of students becomes biggest challenge for teacher. As in many of these courses, more than hundred thousands of students are enrolled. Regardless of the competency of teacher, it is

humanly very difficult for the teacher to answer the query of hundred thousand students from around the world. So, without the real-time interaction and the questions, curiosity might be diminished particularly if concepts are not clarified. Second, students' social interaction at the university with fellow students and teacher is very important and it refines their interpersonal and communications skills. Group assignments help them to develop team skills which are one of the most cherished set of skills at work. Moreover, one of the faculty members said in our interview that by looking at the student physically, teachers gauge their level of confidence. They closely monitor the effort of the performance. With MOOCs, they might not be able to do that because student are going to be connected via the powerpoint slides and online quizzes, consequently, evaluation of the students' performance becomes harder.

Few respondents were skeptical regarding MOOCs success in rural area because of power failures and fluctuation of voltage. Moreover, one of respondent raised another set of concerns in the context of Pakistan that online courses unfortunately do not enjoy deserved eminence and if someone has done an online course, it is considered of lower quality without any reason. The biasness against distance learning and online learning exist in some form which we need to work on as a society. Second, some respondents were skeptical of MOOCs as they do not think employers would consider these courses because anyone can do these courses and crucially, there is no credibility of the evaluation method. However, they considered it as supplemental to one's current knowledge and resume.

Couple of respondents mentioned that the role of Higher Education Commission (HEC – a government body responsible for facilitation and development of higher education in Pakistan) is very important in the development of MOOCs in Pakistan. If HEC promotes MOOCs at universities, it can gain recognition in a very short span of time, especially if it awards credits for the courses. On the contrary, some respondents envisaged that HEC would not do it because it might put future of the universities to questions.

4.3 The potential of local MOOC in national and regional languages
Many respondents think that MOOCs initiated in Pakistan by domestic teachers will be more useful and beneficial for the Pakistani students, as international teachers do not understand the social, religious and cultural aspects of the country.

MOOCs by Pakistani universities will have more recognition amongst their student as there would be domestic examples. As in current MOOC from western universities, most of the examples are from the institutions and organizations of developed countries which lack the social context of developing country. Doing business in USA and Pakistan are two very different cups of tea.

There are number of good-quality tuition centers which charge very high fee from O and A level students and most of them are based at cities. If some Pakistani teachers make videos of their lectures and offer it to the students, it would be a lot more convenient and beneficial for people living particularly in countryside. It may also provide opportunity to those students who cannot afford higher fee of the prestigious tuition centers.

There is great potential if MOOCs are developed in our national language Urdu and other regional languages such as Punjabi, Sindhi, Balochi and Pashto. This will have a prospect of covering most of the underdeveloped areas of Pakistan, particularly those remote areas where women are not encouraged to go out and study. However, internet availability and connectivity is one of the greater challenges in Pakistan along with the frequent power failures. We have good internet connection only in major cities and town whereas most of the population lives in the rural areas.

5. Discussion
This research reflects that distance education programs have been firmly ingrained in our academic system for a long time. However, MOOCs are a product of information age which

uses internet to impart education and importantly, rather than operating inside national boundaries, MOOCs are global in nature, influencing people all over the world. In addition, this study notices that MOOCs got boost in Pakistan because it is free and from top academic institutions as Kalman also claimed that MOOCs did not bring revolution in the teaching methodology. Nevertheless, free courses from premier universities have enabled MOOCs to earn distinguished status.

The surge of MOOCs could see customized degree in near future where learner is free to choose from the range of courses as there are already platforms offering similar courses. The design of the MOOCs has been particularly the size of the videos and discussion forums. Similarly, Waite *et al.* (2013) and Welsh and Dragusin (2013) also consider it very useful as it connects all the class fellows spread around the world. Massive participation and communication makes these discussion forums like online coffee shops where you can discuss, chat and argue with your class fellows. This interaction and connection among co-located group members enables them to reap maximum learning from MOOCs.

This research shows that the enviable ability of MOOCs to attract millions of learners has also been limiting its potential as very small numbers of participants complete the courses. There could be many reasons in this regard, such as for many students, interaction with the teacher is vital for their learning style if they do not comprehend they lose interest, some students just want access to knowledge. So, they download learning material and do not participate in quizzes and assignments. Likewise, Frick (2016) believes that some students avoid evaluation because they do not like to study under pressure. They enjoy learning at their own pace.

Internet access and power failures are considered as some of the challenges for MOOCs. Pakistan is currently struggling to manage power failures as shortfall heightens up to 5,000 megawatts (Hasnain, 2017). According to the World Bank (2016) report, only 18 percent of Pakistanis are using internet, whereas Pakistan population is around 200 million with more than half of the population is under 30. Hence, there is great potential for online education as drastic changes in power and internet connectivity are imminent by dint of Chinese investment of $46 billion investment in Pakistan's infrastructure (Ahmed, 2016b). Pakistan recorded IT export with over $2 billion last year with the growth rate of 41 percent (Baloch, 2015), this is reasonable performance considering not even quarter of the population has internet access. This research shows that students are using Coursera and Udacity courses to refine their software development knowledge and skills. Hence, MOOCs are impacting and transforming the lives of thousands of learners in Pakistan.

The support of HEC could witness the sharp rise of MOOCs culture in Pakistan but it could also endanger the future of the universities particularly business schools as predicted by prominent HBS Professor Clayton Christensen (Kaplan and Haenlein, 2016).

Hence, it could be argued that MOOCs are fine to develop basic knowledge of the concepts and theories. However, the significance of the traditional universities will remain intact in some form, seeing that some disciplines require rigorous use of expensive tools and equipment at laboratories such as disciplines of engineering and medicines which cannot be afforded by the individuals. In this vein, the augmented reality might be a game changer in the future (Castellanos, 2016a), which could help students to guide, envision nature of structures and attain deeper comprehension of the processes. This change could be expected in couple of decades. Before people used to dissect animals as part of their experiment but now there are holographic projections which can be used to explain anatomy and even pilots are being trained through it. Microsoft has also launched its holographic lenses (Castellanos, 2016b). This could be very beneficial for MOOCs and other online courses. Furthermore, idea of online laboratory is growing but this could be not deemed alternative to real one as students will not be able to develop and refine hands-on skills which are indispensable for engineers (Rasika Nandana *et al.*, 2015).

Western MOOCs platforms are undoubtedly valuable and beneficial. However, they lack our domestic context, and believe that MOOCs by Pakistani universities could greatly help local students. On the other hand, Agha Khan University has already launched couple of MOOC programs in English language. Abidi *et al.* (2016) mentioned many factors universities need to consider if they are going to launch MOOCs in low-and middle-income countries. In addition, the idea of MOOCs in regional languages emphatically put forward in focus group by most of the respondents as Pakistan is much diversified on linguistic grounds and nearly 26 different languages are spoken. Nevertheless, it will require big effort and kind intentions from government as the medium of imparting education in all the premier Pakistani universities is English and most of the books and academic literature especially for higher education are available only in English language. So, this endeavor will require the translation of all the books to Urdu and regional languages. Introduction of institutional reforms to galvanize learning in the rural areas could improve the education level of the country. On the other hand, it might have some limitation as these MOOCs will be only limited to the audience who understand those regional languages.

6. Conclusion and recommendations

MOOCs intervention influenced the academic world through many conceptual and technological changes. Many academicians and scholars considered growth of MOOCs as a big threat for the traditional universities, but it has not endangered the traditional ways to imparting knowledge yet. As for many subjects, student needs close supervision, expensive equipment and state-of-the-art laboratory. However, major technological advancement in augmented and virtual reality could revolutionize MOOCs future.

MOOCs are admired in Pakistan as hundred thousands of people are already learning in the country primarily through US and British MOOCs platform. It is the best way to acquire quality knowledge at the time of heightening education cost. As discussed above, there are many sustainable benefits which MOOCs are bringing to the Pakistan society. Although limited internet access and power failures are hindering the streamlining of MOOCs, it is anticipated that in the future, structural improvement in infrastructure could positively impact the MOOC enrollments.

Launching of MOOCs in regional language is a daunting task which requires ceaseless effort from all the stakeholders. Particularly, it needs to draw special attention and interest from academicians and HEC.

MOOCs have a very low completion rate as the participants' interest diminish with the progress of courses. Hence, for future research studies, factors responsible for inhibiting MOOCs could be investigated. The explanation of these factors along with innovative approaches could make MOOCs more influential and successful.

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