IJECA
International Journal of
Education & Curriculum Application
http://journal.ummat.ac.id/index.php/IJECA
ISSN 2614-3380 | Vol. 7, No. 1, April 2024

Perceptions toward the Effectiveness of MOOCs: A Case Study of Afghan Postgraduate Students at UiTM, Malaysia

Hazrat Usman Mashwani[1], Izaham Shah Ismail[2]
[1]Faculty of Education, Sayed Jamaluddin Afghani University, Afghanistan
[2]Faculty of Education, Universiti Teknologi MARA, Malysia
usman.kunar@gmail.com[1], izaha740@uitm.edu.my[2]

Keywords:
Afghan Students;
Challenges;
Effectiveness;
MOOCs;
Perceptions;
TESL;
UiTM;
Malaysia.

ABSTRACT

The integration of technology in education is imperative in contemporary educational standards. Technology serves as fundamental component of the modern educational framework, epitomized by Massive Open Online Courses (MOOCs). MOOCs have significantly broadened educational accessibility enabling flexible learning experiences. However technological limitations in Afghanistan have impeded MOOCs' utilization within the educational system. Despite this, many Afghan students pursue higher education abroad, encountering MOOCs in their studies. This study aimed to investigate the perceptions of Afghan postgraduate students at Universiti Teknologi MARA (UiTM) Malaysia toward MOOCs, evaluating the effectiveness of MOOCs in enhancing the learning outcomes and the challenges students face while using MOOCs for learning. A qualitative research approach was used for the study. The data collected through semi-structured interviews and was thematically analysed and presented. Due to the limitation of available sample, five participants participated in the study.. Findings revealed students' positive attitudes toward MOOCs, despite students facing several challenges such as unreliable materials, technical issues, and students' lack of proper knowledge to use MOOCs. The study emphasizes MOOCs' potential to transform higher education by enhancing accessibility and student engagement: recommending the Ministry of Higher Education (MoHE), Afghanistan to take practical stances to address barriers to equitable participation and optimize the educational benefit of online learning platforms.

Article History:
Received: 28-02-2024
Revised : 23-04-2024
Accepted: 26-04-2024
Online : 28-04-2024

Crossref
https://doi.org/10.31764/ijeca.v7i1.22922

A. INTRODUCTION

1. Instructional Technology in Education

The integration of instructional technology in education has transformed traditional teaching and learning paradigms, offering new opportunities for flexible and accessible learning experiences. The role of instructional technology is of paramount importance in the practice of teaching and learning and has countless advantages when used appropriately (Haleem et al., 2022). According to Chang et al. (2022), the use of instructional technology helps students in their learning achievements, and self-efficacy, and stimulates them to study. It is being proved that a student who learns in the availability of appropriate instructional technology learns better than those who are just provided with verbal information (ALICE, 2012). No doubt technology is

changing and improving every day and is spreading to every walk of life and it has found a way to teach and learn as well. Instructional technology is now an essential part of the teaching and learning process. Similarly, technology has surrounded us in every sector. We cannot expect any sector or field to be perfect without technology. Hearing about the use of technology in the classroom seems a bit strange for the first instance, but yes, it is a fact that a classroom without technology is incomplete. In the current world of technology, a classroom is not considered a classroom unless it is provided with necessary facilities like electricity, computers, projectors, specific educational software, internet and so on. A teacher is required to introduce their classroom lesson plans with a variety of technology and at the same way students are required to respond appropriately and fittingly.

2. MOOCs

One prominent manifestation of this technological transformation in education is the emergence of MOOCs. The acronym MOOC stands for Massive Open Online Course. MOOCs are online content-delivering learning models to any individual who is keen to take a course with no limit on attendance (Grajek, 2014). MOOCs are usually run by third parties (MOOC platforms). Anyone interested in the use of MOOCs can just sign up for free and can browse the range of MOOCs that is offered by various universities. MOOCs integrate both traditional and modern course learning materials like videos, readings, projects, assignments and so on. In recent years, MOOCs have emerged as a disruptive force in higher education, challenging conventional notions of course delivery and student engagement. Originating from experiments in open education and online learning, MOOCs have rapidly evolved into a global phenomenon, offering learners around the world access to a wide range of courses and subjects from leading intuitions. This is undoubtedly a big test of the traditional classroom teaching system as it is considered the alternative method of teaching and learning.

3. History and features of MOOCs

The history of MOOCs can be traced back to early experiments in online education when In 2008, MOOC was used for the first time in Canada as a pedagogical experiment at Manitoba University (Baggaley, 2013; Liyanagunawardena et al., 2013). This paved the way for the development of more interactive and scalable platforms. The defining features of MOOCs, including their massive scale, open access, and diverse course offerings, have contributed to their widespread popularity and adoption by learners of all ages and backgrounds. The driving force behind MOOCs was to share knowledge openly and provide everyone with free learning. This idea was executed for the first time by Stanford University and some other open course platforms, like Coursera, Edx, and Udacity, which is currently, the center of attraction for a great number of students (Siemens, 2012). Open educators like George Siemens, Stephen Downes, Dave Cormier, and Alex Couros launched MOOCs (Siemens, 2012; Anderson & Mc Greal, 2012). It was Dave Cormier who coined this term in 2008 after the success of Open Education Resources (OERs). The term Massive Open Online Courses referred to the first open course Connectivism and Connective Knowledge introduced by Siemens and Downes. In the beginning, this course was designed for those students who were on campus, and at the same time, it was open for global registration as well without any cost, where 2300 students took part. After that in three years, Stanford University's free registration course (Introduction to Artificial Intelligence) opened by Sebastian Thrun and colleagues attracted more than 160000 students from over 190 countries. Due to its great success, they introduced MOOCs for business models as well (Peter & Deimann, 2013).

Openness and free of demographic, economic or geographical restrictions are some of the features that differentiate MOOCs from other online courses provided by various universities (Yuan & Powell, 2013). Based on this idea, the typical features of MOOCs are openness and Scalability, i.e., globally open to everyone and can support a great number of students.

4. Types of MOOCs

There is a constant debate on the types of MOOCs among researchers. However, the common agreed types of MOOCs are cMOOCs and xMOOCs (Bates, 2015). The primary field of cMOOCs is an interactive and engaging learning environment, which keeps students involved in different activities whereas xMOOCs deals with instruction via video presentations, quizzes, and tests (Siemens, 2012). A great number of researchers believe that the main difference between these two types is their interpretation whereas their common similarity is openness and scalability. It was Stephen Downes, who declared the two types different from each other based on their difference in the pedagogical foundation. cMOOCs are based on learner autonomy whereas xMOOCs are based on a tutor-centred model (Downes, 2014).

5. Challenges of MOOCs

From the time MOOCs were initiated, there have been started discussions and doubts about their academic worth and importance (Conole, 2013). MOOCs will limit the students' learning potential to the extent of its autonomy, diversity, and openness as it lacks the structure, support, and control as compared to traditional courses (Mackness et al., 2010). One of the most significant challenges for the use of MOOCs is that it requires the user to be well-informed to use it properly and the one(s) who is not at least a bachelor will find difficulties to use them. MOOCs are the areas of interest to young and highly educated people with at least a bachelor's degree (Damevska, 2015). Recent research shows that the participants of MOOCs are usually young and highly educated people (Ho et al., 2014). They further add that a study carried out in 2012 and 2013 shows that 66% of all participants and 74% of those participants who got certificates were young people with an average age of 26 and were highly educated with at least Bachelor's degree. Another study carried out by Hollands & Thirtali (2014), found that students who are involved with MOOCs are highly educated people. Another major issue with MOOCs is that they lack monitoring and that is why their completion rate is also quite low. According to Chengjie (2015), based on statistics, out of the total enrolled students, only 5 to 15% of the students can complete the courses. This was also confirmed by Balch (2013) and Jordan (2014), who found that the completion rate of MOOCs is minimal. Similarly, MOOCs require the availability of some necessary facilities. They are free and open to everyone. However, there are places in the world where people are deprived of the necessary facilities and resources to use MOOCs. Only the openness of MOOCs will not work but at the same time, openness of educational resources is also required. Likewise, MOOCs are usually organized and persist for a limited period which is another issue altogether. The usual lifespan of many MOOCs is very short, and they are replaced by new ones, which hamper the reuse of essential materials for future use (Bates, 2015).

The current study is an in-depth analysis of the perceptions of Afghan postgraduate students at Universiti Teknologi MARA (UiTM), Malaysia aimed at evaluating the effectiveness of MOOCs in enhancing the learning outcomes and engagement of students in higher education. The destabilizing effects of prolonged conflicts and political tensions in Afghanistan have significantly impaired infrastructural development, consequently

impeding the integration of technology in education within the country. This situation results in challenges for the students to use MOOCs and poses a substantial obstacle to the adoption of MOOCs in the country. Nevertheless, a considerable cohort of Afghan students pursuing higher education abroad encounter and engage with MOOCs as part of their academic experience. An illustrative instance of this phenomenon can be observed among the participants of the current study, who are enrolled in postgraduate programs at UiTM in Malaysia and are actively incorporating MOOCs into their academic pursuits. In Malaysia, the pervasive use of technology especially in education is evident, with MOOCs being integrated into nearly every course curriculum. According to Rajendram (2014), cited in (Ghazali & Nordin, 2018), Malaysia is the first country in the world that use MOOCs in all public universities confirmed by Datuk Seri Idris Jusoh, the Second Minister of Education in October 2014. The MoE, Malaysia has assigned four universities i.e., University Putra Malaysia (UPM), Universiti Kebangsaan Malaysia (UKM), Universiti Teknologi Mara (UiTM) and Universiti Malaysia Sarawak (UNIMAS) to develop an official portal for MOOCs which is known as Malaysia MOOCs (Ghazali & Nordin, 2018). The current study is an in-depth analysis of the perception of Afghan postgraduate students toward MOOCs, who are currently pursuing their M.Ed (TESL) at University Technology Mara (UiTM), Selangor, Malaysia. The main purpose of the study is to evaluate the effectiveness of MOOCs in enhancing the learning outcomes and the challenges, students face while using MOOCs for learning. The study holds significant academic importance as it delves into critical facets of MOOCs, offering practical recommendations to policymakers and educators to support the integration, facilitation, and funding of these valuable online platforms within Afghanistan's education system.

B. METHODS

It is a case study of Afghan postgraduate students at Universiti Teknologi MARA (UiTM) and the research approach used for this study was qualitative research approach. Case studies come under the heading of qualitative research (Starman, 2013). As the number of Afghan students is very limited at UiTM, the researcher preferred qualitative approach for the study to get data in detail. A qualitative approach is very productive for in-depth study of the experiences of the participants, especially, when the number of participants is limited (Whitehead & Lopez, 2016). It is a qualitative approach that enables the researcher to carefully study the participants' feelings and perceptions that could efficiently respond to the research problem (Alfehaid, 2011).

1. Population and Sample

The population of this study is all Afghan students who come across MOOCs. However, the available sample for the study is 5 Afghan, final semester, postgraduate students, who are currently pursuing their M.Ed (TESL) studies in UiTM, Malaysia. The reason behind selecting this sample is that these students come across MOOCs for a number of their subjects. UiTM is one of the Malaysian universities that use MOOCs frequently for the teaching of some subjects. So, it will be quite impressive to see the perception of these students toward the effectiveness of MOOCs. The ages of the participants are around 26 to 35 years. Very interestingly, these students are lecturers as well, back in Afghanistan in different public universities. So, it will be very interesting to know their perceptions of MOOCs, based on their unique experiences with MOOCs, both as students and as teachers.

2. Participants' Profile

Five participants participated in the study. While the sample size of five participants may appear limited, the rationale behind their selection was guided by accessibility and availability constraints, and methodological considerations. There are only a few Afghan students at UiTM; so the available students participated in the study. Similarly, qualitative studies prioritize depth over breadth, emphasizing a thorough exploration of participants' experiences and perceptions. By selecting a smaller number of participants, the researchers dedicated more time and resources conducting in-depth interviews and analyzing the data in detail, thereby generating rich and nuanced findings. Despite the smaller sample size, the sample was deemed sufficient for achieving the research objectives and generating valuable insights into the experiences of Afghan students with MOOCs at UiTM. Furthermore, despite the smaller size of the sample, the participants have diversity in terms of demographic characteristics, academic background, and prior experiences with MOOCs. So, all these perspectives have helped to achieve in-depth insights relevant to the research objectives. The following paragraphs present more details about the participants.

The first participant of this study is 26 years old, male, Afghan, postgraduate student. He is currently studying in the final semester of his M.Ed (TESL) program at the University Technology MARA, Shah Alam, Selangor, Malaysia. He is also working as a lecturer in one of the Afghan public universities for more than three years. He has also worked as a teacher in numerous other private learning centers back in Afghanistan. The second participant of this study is 30 years old, male, Afghan, postgraduate student, who is currently a final year student of the M.Ed (TESL) program at University Technology MARA (UiTM), Shah Alam, Selangor, Malaysia. He has been teaching as an EFL lecturer in one of the Afghan public universities for almost five years. During this period of four years, he has taught various subjects to freshman, sophomore, junior and senior students.

The third participant of this study is a 31 years old male, Afghan, postgraduate student, who is currently a final year student of the M.Ed (TESL) program at University Technology MARA (UiTM), Shah Alam, Selangor, Malaysia. He has been teaching as an EFL lecturer in one of the Afghan public universities for almost five years. During this period, he has taught reading, literature, linguistics, listening and speaking to various classes. He has also worked as English language instructor in several private institutes as well. The fourth participant of this study is 28 years old, male, Afghan, postgraduate student, who is currently final year student of the M.Ed (TESL) program at University Technology MARA (UiTM), Shah Alam, Selangor, Malaysia. He has been teaching as an EFL lecturer in one of the Afghan public university for five years. He has vast experience teaching the English language in various Afghan private universities as well. The fifth participant of this study is a 35 years old male, Afghan, postgraduate student, who is currently final year student of the M.Ed (TESL) program at University Technology MARA (UiTM), Shah Alam, Selangor, Malaysia. He has been teaching as an EFL lecturer in one of the Afghan public universities for almost seven years. He has also worked as a lecturer in teacher training college for almost one year. He has been teaching English in a private university and several private language institutes for almost four years.

3. Data Collection Instrument

Semi-structured interviews were used for the data collection of this study. The semi-structured interviews were adopted and adapted from the study carried by Cole, & Timmerman, (2015). The interview instrument used in the study was carefully crafted to elicit comprehensive and relevant information from the participants, aligning closely with the research objectives. Drawing upon established frameworks and previous research in the field, the interview questions

were designed to explore two main areas i.e., participants perceptions toward MOOCs and challenges students face while using MOOCs. Building upon the identified themes, open-ended questions were formulated to elicit detailed responses from the participants. These questions were carefully crafted to encourage participants to reflect on their experiences, share insights, and provide rich qualitative data for analysis. Each question in the interview was directly aligned with one or more of the research objectives. For example, questions related to participants' perceptions of MOOCs addressed the objective of understanding their attitudes towards online learning, while questions about challenges aimed to uncover factors influencing the adoption and effectiveness of MOOCs among Afghan students. Each interview was recorded with a voice recorder that took about 17 to 25 minutes for each interview. Before administering interviews, each participant approved to voluntarily take part in the study as a participant and they have singed the informed consent form.

4. Data Analysis

After accomplishing all five interviews, they were organized and transcribed for analyzing the data. Data analysis is the process which involves mingling, summarizing and interpreting the collected data, to fully understand and get sense out of the gathered data, provided by the participants. Thematic analysis was used for the analysis of the data. According to Wood (2011), thematic analysis is one of the main data analysis techniques used for the analysis of qualitative data. Thematic analysis is done by finding patterns/repeating ideas in the data and coding and classifying those ideas into distinct themes. Following the Braun and Clarke (2006) guidelines, the transcribed data was organized, recurring ideas were identified, the repeating ideas were coded, separate themes were generated, the themes were named, and the themes were reviewed and validated. To enhance the consistency and reliability of the data analysis process, inter-coder agreement was constantly assessed. Similarly, reflexivity was maintained by researchers and they critically reflect on their own biases, assumptions, and preconceptions throughout the data analysis process to minimize the influence of subjective biases on the interpretation of the data. Furthermore, the data analysis process involved linking the identified patterns and themes back to the research questions. This iterative process helped the researchers to draw meaningful conclusions and generate insights that directly addressed the research objectives.

C. RESULT AND DISCUSSION

1. Perceptions of Afghan Postgraduate Students at UiTM toward MOOCs

Several themes appeared in the responses of the participants that directly answer the first research question. The most important themes that appeared in response to research question one are: MOOCs as a source of information and as a learning experience, what students like and dislike of MOOCs, expectations from the instructor/facilitator of MOOCs, comparison of MOOCs with formally taught classes. These themes are presented next in details. Before presenting the themes in detail, Table 1 below presents an overview of the themes and subthemes.

Table 1. Perceptions of Afghan Postgraduate Students at UiTM Toward MOOCs.

Research Question 1	Themes	Subthemes
What are the perceptions of Afghan postgraduate students at UiTM toward MOOCs?	MOOCs as a source of information and as a learning experience	Unlimited participants can join and learn in MOOCs MOOCs are excellent platforms for both teaching and learning
	What students like and dislike of MOOCs	-Likes They have variety They are up to date They are a vital part of 21st-century learning and teaching they are easy and comfortable to handle They do not require the students to attend the class physically -Dislikes Structured learning materials Difficult for students to ask about some issues directly from the instructor They are a bit heavy so take more time to load
	Expectations from the instructor/facilitator of MOOCs	The instructor must update the information on regular bases The instructor must start from the very basic and then go to advance levels The instructor should respond to students' issue as soon as possible
	Comparison of MOOCs with formally taught classes	MOOCs are easy to follow as compare to traditional classes MOOCs are very comfortable for learning as compare to traditional classes

a. Theme 1: MOOCs as a Source of Information and Learning Experience

The first theme that appeared in the participant's reflections was their stand on MOOCs as a source of information. Their viewpoints about MOOCs as a source of information vary. However, the majority of their views somehow advocate the same points. They explained that MOOCs are excellent platforms for both teaching and learning. An unlimited participant can join and learn in MOOCs. Anyone who has access to computer and internet can get a vast amount of materials for learning, i.e. they can come across with various

topics, learning videos, learning games, reading, discussions and can see other people work from around the globe. These are some of the responses provided by the participants regarding MOOCs as a source of information.

"…. they are good sources of information as they can deliver learning contents online to any individual ….. Massive open online courses are a useful source of learning; they offer learning, for example learning from videos, learning from games, reading, speaking activities and many more." (Participant 1, lines 2 – 6)

"I believe MOOC is a good platform or not only teaching but also learning. If one sign as a student, there he or she can find a vast body topic, discussions, and classes that they can join, learn from others and share their own understanding with other people who may come from different corners of the world." (Participant 2, lines 1 - 4)

"Well, MOOC provides people with chances to learn online without being in the actual classroom. It offers complete courses for students on a variety of subjects through which students learn, complete course material, and receive feedback at their own pace." (Participant 4, lines 1 - 4)

"MOOCs is the need of the day to day life. As this is the epoch of generation X and Y, so MOOCs is one of the best responses to the requirements of the current era. It is a source of unlimited learning materials just at one(s) fingertip distance." (Participant 5, lines 1 – 4)

b. Theme 2: What Students Like and Dislike of MOOCs

In response to the question about students liking and disliking about MOOCs, every participant somehow expressed a distinct view. Their responses were interesting and mostly centered on the liking of MOOCs. What they like the most about MOOCs were; that they have variety, they are up-to-date, are a vital part of 21st century learning and teaching, are easy and comfortable to handle, do not require the tension of preparing, and attending the class, and more importantly one can attend them from everywhere they are in. Similarly, what the participants dislike about MOOCs was; that they do not provide in-depth learning as there are structured learning materials and is very difficult for students to ask about some issues directly from the instructor as they are a bit heavy so take more time to load. Their viewpoint can be seen in the following statements:

"……..there is no requirement for entry and also you can take these courses anywhere you are, right, and any condition you are. You do not need to dress up and be formal, to wear a uniform while entering the class. Aaa you can have a cup of tea or coffee and do your online courses aaa in a distant or remote area and what I dislike about MOOCs is that it does not enable students to understand something very deeply, you know they are structured lectures when suppose they teach student cannot ask questions……." (Participant 1, lines 13 – 19)

"…. things that I like about MOOC are their variety, they are up to date, they are 21st-century learning and teaching and their comfort. You can learn anywhere anytime. The only thing I dislike is I think the website is a little heavy and it takes a little bit of time to load." (Participant 2, lines 10 – 12)

"There are countless positive points that make MOOC interesting for me, but one feature that I like the most about MOOC is definitely the openness and learners' freedom of learning. What I dislike about MOOC is that it prepares and encourages the student to learn by themselves, so it paves the way gradually to repel students away from the teacher." (Participant 5, lines 11– 15)

c. Theme 3: Expectations from the Instructor/Facilitator of MOOCs
Another theme that appeared in the students' responses was their expectation from the instructor/facilitator of MOOCs. Once again, their viewpoints regarding this theme were varied. However, they pointed out essential points for the instructor/facilitator of MOOCs. They stressed that the instructor must update the information on regular bases and should respond to students' issue as soon as possible. They suggested for the simple structure of the MOOCs interface and insisted that the instructor must start from the very basic and then go to advance levels as most of the students have issues with the use of technology, especially at the outset. The following are some of the participants' responses:
".....facilitator should aaa teach in a way, in an easy way, right, aaa students I think in different context, especially in the Asian context. Aaa, I think majority of student will not be able to use technology well because technology aaa is a new phenomenon across the globe, so when a facilitator incorporates MOOCs in a certain class, they have to aaa teach in an easy way..." (Participant 1, lines 36 – 40)
"I would expect him or her to update the info on his or her class page as often as possible and to reply address student issues as quickly as possible." (Participant 2, lines 15 – 16)
"I expect from the instructor to make the usage of MOOCs easy for the learners..... when the instructor is assessing the works, he/ she has to brief the learners at first so that they could comfortably submit their answers and so on." (Participant 3, lines 28 – 31)
"I expect that the courses be offered by professors at the top schools and the course instructions and evaluation be crystal clear. Furthermore, the facilitators of MOOCs must attempt to make the MOOC interface as easy as possible to use." (Participant 4, lines 16 – 18)

d. Theme 4: Comparison of MOOCs with Formally Taught Classes
The last theme that appeared in the respondents' responses to research question one was the comparison of MOOCs with traditional or formally taught classes. In the responses of the respondent, it was revealed that MOOCs are easy to follow as compared to traditional classes where one need to physically attend the classes, dress up appropriately, buy books and other study materials. Similarly, MOOCs are very comfortable for learning as compare to traditional classes, as MOOCs are available and accessible everywhere and every time.
"Well, you know formally taught classes aaa need physical presence, right, you have to be on time, you have to be present, you have to wear the uniform, you have to buy books, buy materials, and take materials to the class every single day. Right, you have to be punctual aaa but MOOCs don't require such things...." (Participant 1, lines 48 – 51)
"MOOC is available all the time which I think leads to more comfortable learning... meaning you can learn from your bedroom or your living room". (Participant 2, lines 17 – 18)
"The MOOCs compared to formal classes is better because the students feel free and have more freedom. They can refer to MOOCs any time they want and they can save their time going to attend the class physically. When it comes to the assignments compared taking the exam in the class, it is much more comfortable. The students can view their works multiple times and edit them before submitting." (Participant 3, lines 34 – 38)
"Well, I think that MOOCs are more effective than traditional formal classrooms. This is because, the courses offered on MOOCs are free; the courses are available to a vast audience across the world; both instructors and learners get world-wide exposure, thus improving pedagogical techniques and knowledge sharing." (Participant 4, lines 19 – 22)

2. Challenges Students Face While Using MOOCs for Learning

To answer the second research question, a few interesting themes emerged from the interview data which are presented next in Table 2 in detail.

Table 2. Challenges of Afghan Postgraduate Student at UiTM While Using MOOCs.

Research Question 2	Themes	Subthemes
What are the challenges Student face while using MOOCs for learning?	Reliability of Uploaded Materials	No system of reviewing board
	Hardware and Software Issues	The software will suddenly stop working
	Knowledge of Using Technology	The use of computer and internet is a big challenge for number of students

a. Theme 1: Reliability of Uploaded Materials

The participant believes that it is not sure that everything available in the MOOCs will surely be reliable. Because there is no system of reviewing board that can check the reliability of uploaded materials and everyone can easily upload whatever material they wish. The following are some of the responses from the respondents' interview data.

"Sometimes, I think reliability of info uploaded is not sure." (Participant 2, line 20)

"I am a little unsure about the reliability of materials available on MOOCs, as anyone can provide materials without passing through a proper system of checking." (Participant 5, lines 19-21)

b. Theme 2: Hardware and Software Issues

The respondents also pointed toward the hardware and software problems while using MOOCs. They explained that hardware and software issues are associated with online learning. One will be ready to start work or even will be working on an online test that will have time deadline, but the software will suddenly stop working and will leave the student astonished. The following are some of the responses from the respondents' interview data.

"Hardware and software failure are some of the issues that can possibly cost you time or even score especially when you have to take a test in limited period of time." (Participant 2, lines 20-21)

".....sometimes the connection and technology also cause problems to learn in MOOCs." (Participant 3, lines 46-47)

".....Furthermore, it is difficult for students who do not have a strong and reliable internet connection....." (Participant 4, lines 23-24)

"As internet facility is not available everywhere and if it is available still there are occasions when it does not work properly, so in the case, one would find it a bit nasty, especially if he/she is doing an assignment at the last moment of deadline." (Participant 5, line 23-25)

c. Theme 3: Knowledge about Using Technology

The participants pleaded that it is good to use MOOCs for learning but at the same time it is quite challenging for a number of students to use computer and internet which is the primary medium of online learning. The following are some of the responses from the respondents' interview data.

> *"If student do not know how to use the internet and computer, it will be a big challenge.... if students are not familiar enough with using the internet and technology, they cannot use MOOCs. In places where there is lack of electricity power, where there is lack of internet and shortage of computers in the classes, the students will find it very challenging to use MOOCs"* (Participant 1, lines 60-75)
>
> *".....another biggest issue with MOOCs is the learner lack of experience to use technology. As there is no proper prior computer education or training at school level, especially in Afghanistan, so using computer and internet is very challenging for the learner when they face online learning*." (Participant 5, line 27-30)

Interview results provided that MOOCs are excellent platforms for teaching as well as learning. MOOCs enable everyone who has the facility of computer and internet to take part in them and learn from them easily. They can be excellent sources of varied topics, essential learning videos, learning games, reading, discussion and more importantly bring the learner to one platform from every part of the world. This is in accordance with the study conducted by Goh (2016), who found that 18.2% and 69.7% of the participants declared MOOCs excellent and good respectively for learning and teaching. These findings are further supported by Rajabi and Virkus (2013) and Koedinger et al., (2015) who found participants' positive attitudes toward MOOCs. The participants in all these studies advocated that MOOCs are great sources of learning because they are precise, provide instructor's instant feedback, enable students to see each other work and can follow online courses as well as work to support the family.

Similarly, it appeared from the participants' responses that they love MOOCs as they: have variety, are up to date, are 21st-century learning skill, easy to use, no need to attend class physically and one can take part in them from every part of the world. Moreover, MOOCs are easy to follow as compare to traditional classes as it does not demand physical appearance, uniform, taking books and materials to the class and more importantly they are free. Likewise, Manalo (2014), conducted a study in the context of Philippines and found that a great number of participants were satisfied with the MOOCs experience and they liked them as they are free and one(s) can easily access them. Another aspect revealed in the participants' responses was their expectation from the MOOC's instructor/facilitator. The participants continually stressed that the instructor of MOOCs must frequently update the information and should provide students with abrupt feedbacks. They also suggested that the instructors must start from the ground rules before going to complexity.

The findings of the study also indicated that the participants face several challenges as well regarding MOOCs. They mentioned that the reliability of uploaded materials on MOOCs is in doubt and pleaded that the available materials on MOOCs are not always reliable as anyone can easily upload whatever he/she wish for. It was found that hardware and software is another big issue of MOOCs. A significant number of learner works at a time on the same project, which sometimes causes the software to hang and it is quite annoying for learners especially when they are doing their assignment at last minute. This is in line with the findings of Matsunaga, (2016), who found that online courses have a deadline and sometimes technical issues which cause students to miss some of their important assignments and quizzes. Another big challenge revealed from the interview analysis is that MOOCs require some skills and experience on the part of the learners to use them properly. However, some learners do not know or do not have much experience with instructional technology, i.e. they have difficulty using computer and internet. This was also found by Dillahunt et al. (2014), that the one who uses MOOCs should have enough knowledge and

experience of MOOCs and they must be at least Bachelor's degree holder to use them properly. This was also backed by another study which was carried by Hollands and Tirthali (2014), which found that students who are involved with MOOCs are highly educated people. The identified themes regarding the challenges of MOOCs can inform policymakers. They may devise plans and strategies to improve technical infrastructure to enhance students' access to MOOCs. Similarly, the insights taken from the study may inform educators about the specific needs and preferences of the students regarding MOOCs and this knowledge can be used to develop more culturally relevant and engaging content for MOOCs that align with the learning goals and aspirations of Afghan learners. Furthermore, understanding the perceived challenges of MOOCs may guide professional development initiatives for the teaching staff in Afghanistan. Training programs may be designed to help educators effectively integrate MOOCs into their teaching practices, leverage MOOC resources to supplement classroom instruction and facilitate online learning experiences for their students.

D. CONCLUSION AND SUGGESTIONS

The study was carried out to explore the perceptions of Afghan postgraduate students at UiTM toward the effectiveness of MOOCs and the challenges they face while using MOOCs for learning. The finding of the study revealed that majority of the participants have very positive views towards the use of MOOCs as they believe that MOOCs are excellent platforms for learning and teaching. They expressed that MOOCs are essential 21st-century skills and should be used to make learning and teaching exciting and accessible to everyone. The significant challenges found by the study were the unreliability of uploaded materials on MOOCs and some technical issues with the MOOC's software. Another big issue that challenges students while using MOOCs is the students' inexperience and lack of proper knowledge to use MOOCs. Certain areas need to be improved, to make the use of MOOCs exciting and productive. The instructor/facilitator of MOOCs should regularly update the materials and should provide instant feedback to keep the learner interested. As knowledge of using computers and the internet differ among students, so a MOOC instructor/facilitator should start with basics and gradually go for the complexity. Similarly, the instructors/facilitators should check the reliability of materials before uploading them on MOOCs to provide quality learning.

To apply the findings of this research, it is imperative to bridge the gap between findings and actionable outcomes. This can involve collaborating with educational policymakers and stakeholders, particularly within the MoHE, Afghanistan to implement tailored interventions addressing the identified challenges. Additionally, fostering partnerships with international institutions, like those in Malaysia where MOOCs are extensively utilized, could facilitate knowledge exchange and capacity building to overcome technological barriers in Afghanistan's educational landscape. By contextualizing the findings within practical initiatives, this research can serve as a stimulus for enhancing MOOC adoption and improving educational outcomes for Afghan students.

To enhance the utilization of MOOCs in education, it is recommended that MoHE, Afghanistan take concrete actions in several key areas. Firstly, they may prioritize infrastructure development to facilitate access to online platforms. Secondly, they may offer comprehensive training programs to educators and students to effectively navigate and utilize MOOC resources. Thirdly, they may integrate MOOCs into academic curricula across various disciplines to ensure widespread adoption and relevance. Additionally, they may advocate for supportive policies at the governmental and institutional levels to encourage the integration of online learning into

traditional education systems. Move over, they may foster partnerships with MOOCs providers and other educational instructions to expand access and improve content quality. Lastly, they may invest in research initiatives to gather evidence and insights for informed decision-making regarding MOOC implementation and their impact on educational outcomes.

ACKNOWLEDGEMENT

The authors of the study extend their special thanks to all the participants of the study. Their insightful contribution has helped enrich the depth and quality of this research study.

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