

IDENTIFYING THE MOTIVATIONAL FACTORS THAT INFLUENCE LEARNERS' INTENTION TO CONTINUE TO USE ARABIC MOOCS

¹NADA HAKAMI, ²SU WHITE, ³SEPI CHAKAVEH

Electronics and Computer Science, University of Southampton
E-mail: nah1g15@soton.ac.uk, {saw, sc2}@ecs.soton.ac.uk

Abstract - Massive Open Online Courses (MOOCs) provide open educational resources to people around the world. The aim of this research is to identify the factors that influence learners' decisions to continue to use an Arabic MOOC named Rwaqplatform. This platform offers open and free courses completely in the Arabic language. Based on a literature review, the present research extends the Technology Acceptance Model (TAM) in a new context. Exploratory research has been undertaken by conducting interviews with twenty-two experts in the Rwaq platform. The main objective of the interviews is to explore participants' perspectives on a set of factors that affect the continuance intention towards using Arabic MOOCs. This includes perceived usefulness, perceived ease of use, Arabic language support, free courses' advantages, perceived reputation, intrinsic motivations and willingness to earn a certificate. Thematic analysis was utilized using NVivo11.0. Analysis of interviews data shows that approximately all the participants agreed on the proposed factors that affect the continuance intention to use Arabic MOOCs. Furthermore, additional influential factors were suggested by the interviewees. On the basis of the findings from interviews and previous studies, new research instrument has been designed. Future research will be conducted to verify the proposed model and research hypotheses.

Index Terms - Continuance intention, Post-adoption/post-acceptance, Motivational factors, Technology acceptance model, Arabic MOOCs.

I. INTRODUCTION

Information and communication technologies (ICT) has become an integral part of teaching in educational institutions. ICT contributes significantly to the success and effectiveness of such institutions. MOOC platforms are an innovation in open and distance education that has gained popularity within the recent years with growing number of MOOC providers and learners since its appearance in 2008 [1], [2], [3], [4]. They afford large-scale and open educational platforms where teachers and learners across the world can interact and learn flexibly and for free. Unlike restrictions imposed by traditional education, a single course in MOOCs can gather learners of different backgrounds, specializations, cultures, ages, motivations, learning habits, goals and skills.

The technological developments and benefits provided by technology-based products and services including MOOCs alone cannot guarantee their acceptance and use by the potential users [5], [6], [7]. This even applies on superior and sophisticated applications and technologies [8]. More importantly, success, long-term viability and sustainability of information systems are associated with post acceptance (continued use) rather than initial acceptance (first-time use) [9].

We found a limited number of studies devoted to the acceptance of MOOCs and continuance use intention [49]. Furthermore, all these studies have been validated in non-Arabic cultures, mostly in China, where values and behaviors differ significantly from Arabic culture. Regarding the technology acceptance, many studies concluded that the national cultures of

users of technologies manifested diverse impacts on their acceptance behavior with varying degrees of intensity or importance, for example [7], [10], [11], [12]. The Arabic language is the sixth most spoken language in the world with 420 million Arabic speakers [13]. Exploring the motivational factors for using MOOCs offers insights for MOOCs providers in the Arabic region into the possible approaches to improving the MOOC experience for all learners [1], [14] in order to increase engagement, satisfaction and possibly completion or retention rates. Owing to the importance of understanding the willingness to continue using technologies [3], [15], the main purpose of this research is to contribute to a pool of literature on MOOC continuance by developing a theoretical model that identifies the determinants to predict the learners' continuance intention towards using Arabic MOOCs (Rwaq platform) [16]. Consequently, this research strives to answer the following questions:

RQ1: What motivational factors affect learners' decisions to continue using Arabic MOOCs?

RQ2: What potential relationships between the motivational factors that affect learners' intentions to continue to use Arabic MOOCs?

II. PROPOSED RESEARCH MODEL AND HYPOTHESES

Amongst technology acceptance theories, TAM is one of the most influential and frequently adopted theory for individual's acceptance of information systems [6], [17]. Likewise, it is the most frequently used model in previous studies related to acceptance of technology-enhanced learning [18] and MOOCs [49]. The reasons lie in its simplicity where it

suggests that only two factors account for the variance in the behavioral intention to use a system: a) perceived usefulness, b) perceived ease of use. Moreover, TAM has been found reliable when applied in diverse settings and samples [19], [20]. Nevertheless, researchers recommend extending TAM with other variables to provide a stronger model for new research contexts and settings [17], [21].

Given these findings, this research extends TAM to understand the willingness to persist in using Arabic MOOCs from the viewpoints of learners in Rwaq platform. As presented in Fig. 1, the proposed research model consists of seven independent variables (perceived usefulness, perceived ease of use, Arabic language support, free courses' advantages, perceived reputation, intrinsic motivations and willingness to earn certificate) and one dependent variable (continuance use intention).

A. Perceived Usefulness (PU)

Perceived usefulness is defined by Davis [22] as "the degree to which a person believes that using a particular system would enhance his/her job performance" (p.320). Many studies found that PU has significant positive correlation with behavioral intention to use or continue to use MOOCs [1], [2], [3], [5], [23], [24], [25], [26], [27], [28].

H. Perceived usefulness will have a significant positive effect on the continuance intention to use MOOCs.

B. Perceived Ease of Use (PEU)

Davis [22] defined perceived ease of use as "the degree to which a person believes that using a particular system would be free of efforts" (p.320). Research on MOOCs acceptance and continuance validated the positive significant effect of PEU on behavioral intention to use or continue to use MOOCs [1], [2], [5], [23], [24], [25], [26], [28].

H. Perceived ease of use will have a significant positive effect on the continuance intention to use MOOCs and perceived usefulness.

C. Arabic Language Support (ALS)

According to the class central [29], the majority of courses in MOOCs are offered in English (5577) while only 125 are provided in the Arabic language. Joseph and Nath [30] promoted providing MOOCs in languages and cultures of learners. International learners who attend MOOCs offered in a language different than their native language might face difficulty pertaining to language issues depending on their level of skill in the language [31]. Most of the individuals in the Arabic world do not have the English language skills needed to participate in English MOOCs [32].

H. Arabic language support will have a significant positive effect on the continuance intention to use MOOCs.

D. Free Courses' Advantages (FCA)

Openness is one of the main features of MOOCs through which a massive number of learners can access the educational resources freely and flexibly [1], [27], [33]. Few studies explored the significant positive effect of MOOCs openness on behavioral intention to continue using MOOCs directly or indirectly such as [1], [27]. Other research found a significant positive effect of affordability on behavioral intention to use MOOCs [34]. Similarly, some literatures discovered that openness of MOOCs is a reason that encourages people to join MOOCs such as [35], [36].

H. Free courses' advantages will have a significant positive effect on the continuance intention to use MOOCs, perceived usefulness and perceived ease of use.

E. Perceived Reputation (PR)

An organization's reputation has been defined by Feldman et al. [37] as "a reflection of how it is regarded by its multiple stakeholders. Its reputational stance can help the organization obtain trust and credibility in society, which will assist in the achievement of its objectives and goals" (p.54). Several researchers have found a positive significant impact of perceived reputation of MOOCs on behavioral intention to use or continue to use MOOCs directly or indirectly such as [1], [24], [25], [27], [34].

H. Perceived reputation of MOOCs will have a significant positive effect on the continuance intention to use MOOCs and perceived usefulness.

F. Intrinsic Motivations (IM)

According to Ryan and Deci [38], "the most basic distinction is between intrinsic motivation, which refers to doing something because it is inherently interesting or enjoyable, and extrinsic motivation, which refers to doing something because it leads to a separable outcome" (p.55). Enjoyment, interest, curiosity and challenge are the main types of intrinsic motivations [38], [39], [40]. Some literatures validated the direct or indirect positive influence of perceived enjoyment, perceived playfulness, autonomous or intrinsic motivations (interest, curiosity or enjoyment) on learners' intentions to use or persist in using MOOCs [5], [23], [27], [41], [42]. Belanger and Thornton [43] revealed that fun and enjoyment were important motivations to join MOOCs for the great majority of learners.

H. Intrinsic motivations will have a significant positive effect on the continuance intention to use

MOOCs, perceived usefulness and perceived ease of use.

G. Willingness to Earn Certificate (WEC)

In most of MOOCs as in the case of Rwaq, certificates of course completion are given to learners upon passing all the course requirements. In the current study, we defined willingness to earn certificate of course completion as a motivation that encourages individuals to join Rwaq courses for the aim to get the certificates for any purpose.

In the MOOCs' context, Xiong et al. [42] revealed that extrinsic motivations (e.g. obtaining certificates) has significant influence on learners' engagement in MOOCs. Also, the recognition and estimate of MOOCs' certificates by job providers and regulatory bodies was found to have a significant impact on MOOC acceptance [34].

A study led by Norman[44] showed that the goal of 42.3% of 3104 respondents is completing the courses for the sake of obtaining certificates. Littlejohn et al.[45] revealed that as opposed to learners with high self-regulated learning (SRL) skills, learners with low SRL skills eager to acquire the certificates and passing grades. Garrido et al.[46] concluded that the intent to receive certificate was common in individuals from the countries studied (Colombia, Philippines and South Africa). Kizilcec and Schneider [47] stated that about half of respondents (45%) confirmed their intention to receive certificate. More interestingly, Davis et al. [36] found out that 54.4% of all respondents and 61.7% of Arabic respondents indicated that improving their CV through obtaining certificates is one of the reasons that lead them to use MOOCs. Greene et al.[48] reported that 55% of respondents in pre-course survey informed that they intend to receive certificates, 35% were not sure and 10% were not seeking to obtain certificates.

H.Willingness to earn certificate will have a significant positive effect on the continuance intention to use MOOCs.

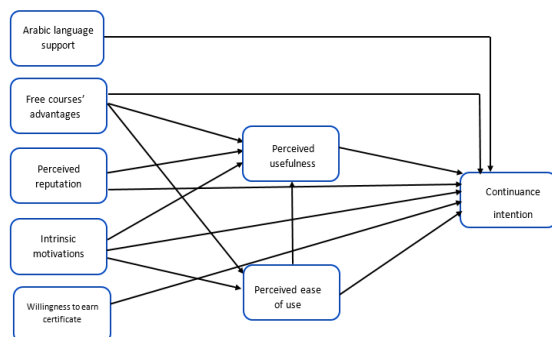


Figure 1 The proposed research model

III. METHODOLOGY

This research adopts exploratory method by undertaking a systematic literature review initially to

review prior theories and studies in the field of MOOC acceptance and continuance in order to develop research model and hypotheses [49]. Semi-structured, one-to-one interviews were then conducted to achieve the following goals:

1. Explore the perceptions of the participants on the influence of a set of factors on learners' intention to continue to use the Rwaq platform. The factors include willingness to earn certificate, intrinsic motivations, perceived reputation, free courses' advantages, perceived usefulness, perceived ease of use and Arabic language support.
2. Outline the potential relationships between such factors.
3. Generating measurement items that better fit the context of this study to be tested in subsequent quantitative phase.
4. Explore additional influential factors from the viewpoints of interviewees to be included in the proposed research model.

The present study uses a combination of face to face and telephone interviews. Purposive (expert) sampling approach was used to gain rich information from experts' perspectives. The interviews targeted three categories of experts in Rwaq platform: a) instructors in Rwaq who teach courses in Rwaq, b) learners in Rwaq who joined at least three courses in Rwaq in the past for learning and c) Administrators including Rwaq co-founder and CEO of Rwaq. Data triangulation was used in the sample to increase research validity by interviewing experts from different categories as well as experts of different ages and genders. For maintaining participants' anonymity, each participant was given a code number to be identified. The code numbers of administrators in Rwaq range between P1-P2, while the code numbers of instructors in Rwaq range between P3-P12, and the code numbers of learners in Rwaq range between P13-P22.

Because the interviews were undertaken in the Arabic language, the audio recordings were transcribed into Arabic transcripts first and then translated to English language. The accuracy of the translation has been checked by two Arabic specialists in the translation. After that, English transcripts were imported into NVivo 11.0 to be coded and analyzed using thematic analysis method.

IV. FINDINGS AND DISCUSSION

The proposed factors discussed within the interviews formed the basis by which responses were grouped. The details about the analysis of interviews are presented in the following subsections.

A. Willingness to Earn Certificate

All the participants except one agree that willingness to earn certificate is an influential and motivational factor that affects the decision to continue to use

MOOCs. In general, the objective of some learners is just to obtain certificates without knowledge while some people search for knowledge only and others search for certificate and knowledge together (P4). Certificate is the most important issue to learners. Mr. Foad Al-Farhan, the founder of Rwaq said that enquiries about the certificates from Rwaq is very common:

“For Sure, if I was asked about the most frequent questions that the students ask in Rwaq, definitely my answer is the certificates. I can say that the issues of certificates were asked on a daily basis approximately. It is obvious that the priority of learners is to obtain certificates. However, non-accreditation of the certificates does not reduce percentage of their interaction. If the certificate is accredited, the number of the students will increase significantly.” (P1, Administrator) Certificates encourage learners to join the courses as one stated that: “Courses that give certificates are more valuable for us than the courses that do not offer certificates.” (P17, Learner)

Moreover, some learners care much about getting certificate that shows high grades to include on their CVs as informed by one of the respondents: “Some re-enrolled in the subject in order to increase their marks, which means they have to get 100/100 (the participant laughs). A student told me how can I display this mark 70 in the CV, it is so bad!” (P5, Instructor) As indicated by few interviewees, there is type of learners who may like to collect certificates, for example one mentioned that: “I remember one learner told me that she enrolled in ten courses at the same time only to collect certificates!” (P5, Instructor) The main purposes of learners behind getting the certificates from open platforms are demonstrating their mastery, supporting applications for finding jobs and impressing potential employers or acquiring benefits or promotions for employees. Another advantage of the certificates is giving a sense of obligation for learner and teacher (P6). Certificates support experience and the main qualification as said by few respondents: “This is the most important factor in the Saudi educational system. Experience is not considered unless accompanied by a certificate issued by an approved entity.” (P7, Instructor)

However, one participant attributed the lack of interest in getting the certificates to the newness of notion of open platforms in Arabic community and to the lack of trust by employers in such platforms (P11).

B. Intrinsic Motivations

From the discussions, the important role that intrinsic motivations play in encouraging learners to persist in using Rwaq has been agreed by all respondents except one. Learners who love knowledge for its own sake away from any benefits associated with study or employment, are one type of learners in Rwaq (P1, P15), for instance:

“One of the types of the individuals in Rwaq is people who love knowledge for knowledge only and they are self-motivated. This type is different from other type which is the individuals who are affected by public and peer pressure, so their motive is to imitate people and only few of them complete the course.” (P1, Administrator)

Some learners exploit the opportunity of open platforms to join courses that are irrelative to their studying or job field because of curiosity to explore new fields and expand their perceptions (P1,P3,P4, P7,P8,P9, P11, P12, P13, P14, P15, P16,P19), for example: “A person may have since childhood certain tendencies towards certain field, but his/her circumstances prevented him/her from studying it. Rwaq platform allows him/her to explore more about this field in a practical and organized way.” (P7, Instructor) Few participants perceived that some learners in Rwaq are interested in the course, creative and have long-term goals which are signs of intrinsic motivations: “After my graduation, I want to study some fundamentals of medicine in MOOCs, and I do not care if I will take a certificate or not. For instance, we have no physicians in my family, so I want to learn the basics of medicine, so that I can take an appropriate action in difficult urgent situations. In addition, I want to learn about depression specifically because one of my family members is suffering from depression.” (P13, Learner) Life-long learning is one of the intrinsic incentives that promotes individuals to use the platforms to boost their knowledge and skills constantly (P10). One participant thinks that some individuals have a self-desire to seek out new experiences and challenges through using online platforms (P15). Few respondents linked the intrinsic motivations that drive learning in Rwaq to the lack of care about certificates which they considered as an extrinsic motivation (P5, P8,P11,P12,P13,P15). Also, some learners who are intrinsically motivated are likely to engage willingly in optional tasks like participating in MOOCs without much coercion, as one explained: “I asked students in my course in Rwaq to do an optional project. A good number of students participated in the project because they like to work to improve their skills and increase their capabilities to learn and gain knowledge as I think.” (P5, Instructor) Intrinsic motivation to learn in Rwaq is an important factor particularly because learning in MOOCs in general are not easy as learning from other means: “Unlike easy learning methods, such as watching YouTube videos or searching the Internet, platforms are a complicated method to gain knowledge due to obligations, time and other requirements. However, platforms would be a good choice for those who have time and self-motive to learn.” (P15, Learner) One participant does not think that learners join MOOCs for intrinsic motivations when she reported that: “I think the target of most of the students is to obtain a certificate or to develop the skills they need to succeed in university or job. I

have never seen students who take courses for enjoying the knowledge only.” (P17, Learner)

C. Perceived Reputation

Perceived reputation has been viewed by all the participants as an effective factor except for one participant. Rwaq platform only employs qualified instructors based on some conditions and criteria (P1). In MOOCs, teachers from prestigious universities and institutions are opportunity for a lot of people around the world (P2, P8, P11, P13, P15), for example: “In open education, who can imagine that individuals can study law from Harvard University, while they are in Riyadh? This is the biggest benefit offered by the platforms of open education that provide the best lecturers from the best universities in the best specializations from any place around the world, so that individuals can learn at any place and time.” (P2, Administrator)

Reputation of instructor is an attractive and marketing factor for registering in the course but continuing in the course is another issue which depends on the quality of course and the tools used by instructor to facilitate the teaching (P7, P10, P13, P19). Hiring skilled experts or academics who have experiences to teach courses in MOOCs is crucial factor to build the trust in the public (P5, P10, P11, P12, P13, P14, P15, P16, P20). The factor of reputation of platforms is an influential factor especially for those learners who want to obtain a certificate that shows the names of the trainers and universities who provided the courses (P15). Nevertheless, one participant had a different opinion that reputation of instructor is not powerful factor to Rwaq public as he said that: “The main factor that affects the decision of the participant to join a certain course is the title of subject and the ‘demo video’ explaining the contents and objectives of it. As being free and open platform, a factor of reputation of the teacher is ineffective, except if the person is looking for a certain teacher who knows him/her already and found him/her teaches courses in the platform. The general public in the open platforms such as Rwaq are not academic, so they do not care if the lecturer holds a PhD or is a lecturer or professor.” (P3, Instructor)

D. Free Courses' Advantages

All the participants except one believed that openness of platforms and free courses encourage people to learn through such platforms. Learners look for free courses for gaining knowledge (P1). Free education is important for all individuals of different classes to save money; particularly for class of individuals in a less fortunate financial situation, students or unemployed (P6, P12, P13, P15, P17, P18, P19, P21): “Open and free courses provide excellent alternative. Economic situation in Saudi Arabia became somehow hard. Majority of registrants in these courses are seeking jobs or promotions, so they need free courses. If platforms were not for free, number of learners

would decrease.” (P6, instructor) In general, people like to join free courses if such courses fulfil their requirements (P11, P16). Moreover, free education eases joining the greatest number of courses according to the learners' needs without restrictions (P18, P21). Other participants stated that free education encourages enrolment but unfortunately often decreases the commitment of learners to complete the courses (P8, P19). However, some respondents believe that the free courses offer them a chance to try the course when they are unable to commit due to reasons such as a shortage of time or low motivation (P14, P16, P22), for example one mentioned: “Sometimes when I join a course and review the first lectures of it, I feel I do not want to complete it. Therefore, If the course is free, I will withdraw easily from it. However, if the course is paid, I will find a difficulty to do so.” (P14, Learner) However, free courses may give learners especially Saudis negative impression about the courses as one said:

“I think that Saudi people do not know the value of anything unless they pay for it. They think if the courses are free, they would be less valuable. Having free courses gives negative impression that they are not of good quality. The reason is that they do not understand the notion of open educational platforms.” (P9, Instructor)

E. Perceived Usefulness

From the interviews, perceived usefulness was seen by all respondents as a key and necessary factor in making the decision as to whether or not to use MOOCs. A common view among all participants is that platforms like Rwaq support learning. From discussion with participants, all of them agree that Rwaq is one valuable source of knowledge for all individuals whether students, employees, job seekers, unemployed, etc. All respondents believe that usefulness of Rwaq for students in universities is complementing curricula and expanding knowledge in their fields. For example, learners can use MOOCs to practice the application of what they learned in class (P22). Another advantage of using Rwaq for supplementing academic courses as follows:

“Some learners study subjects in Rwaq that are related to their specialization in universities because some subjects are very difficult, so they join the platform to understand the difficult curricula. For instance, a lecturer in Rwaq taught a subject that many deem it difficult in the engineering field but was taught in a very different and distinctive style, so many students joined his class.” (P1, Administrator) A few participants reflect that platforms enable learners to gain and understand the information in a different way than learning in universities (P12, P13, P15). MOOCs promote self-directed learning ability of learners as one demonstrated that: “Most of Saudi students lack self-learning skills, as university student still relies on the teacher. Open education will change

this idea because it teaches the student to learn independently from the teacher.” (P11, Instructor) Furthermore, all participants see that open platforms allow employees who work on a given project or a mission but lack a certain skill to develop the needed skill to accomplish their tasks and goals. In addition, job seekers can utilize some useful courses in reputable platforms which might help them to find a job in the future (P8, P10, P15). Asynchronous feature of MOOCs allows people who live in remote areas like villages to benefit from the training courses provided in the platforms (P13, P6, P10): “Many training courses are often held in the main areas of the Kingdom of Saudi Arabia such as Riyadh, Jeddah. Accordingly, those people who live in far areas and villages can benefit from courses presented in platforms easily. All what they need is Internet which is now available at any time and any place.” (P13, Learner) Another feature that it is hard to imagine a platform without it is flexibility. Platforms remove the commuting costs such as traveling, time, money, etc. (P5, P6, P9, P11, P12, P13, P14, P15, P17, P18). They even eliminate the constraints of commuting during bad weathers (P12, P15). Furthermore, courses are archived on these platforms so learners can join the courses at any time after the end of courses. Therefore, people with a difficult schedule can effectively organize their schedule accordingly (P5, P6, P7, P9, P16, P17).

F. Perceived Ease of Use

It also emerged from the interviews that there is no doubt among all respondents that the ease of use of platforms is an important factor that affects learners' intention to persist to use them. Ease of use of Rwaq is an attractive factor necessary, particularly, for optional tasks which is often the case when using the platforms (P1, P2), as one said that: “Unlike Blackboard which is usually a compulsory and complicated system, because Rwaq is an optional method, the system should be easy (interface design, data flow, interaction, participation in courses, watching lectures and the examination system), otherwise the students will simply not use it.” (P1, Administrator) Another respondent remarked that finding alternatives is an axiomatic solution when facing difficulty in Rwaq use as she illustrated:

I remember that I found one website that was difficult to use although it was useful, but I will not use it again because it requires a lot of mental effort. Always, when I face difficulties in using a website, I try to find another one that offers me the same purpose; I do not want to waste my time just to understand how to use a system.” (P15, Learner)

Ease of use is more important feature particularly for a class of people such as people with special needs or people who are not familiar with technologies (P2, P15, P17, P18). Accessing desired information easily and quickly can increase learner's engagement in the platforms (P18). Few participants stressed that

difficult enrolment and plenty of information required will be an obstacle in some platforms (P11, P13, P22), for example one was commenting:

“Information required for enrolment in some platforms is a two-edged weapon. It is better in the initial stage to get simple information like the name and email of registrants only and in the final stages before issuance of certificate, additional information can be taken.” (P11, Instructor)

A Platform should be easy to use to be able to compete with other platforms and attract the users to continue to use it (P7, P8):

“Difficult use of platform will not encourage learners to join it, and even if they join, they will leave it soon. Easy use of any site including educational platforms is an integral part of the user's experience that has an impact on everything.” (P8, Instructor)

G. Arabic Language Support

Obviously, all participants without exception confirmed the important role of providing MOOCs in Arabic language. Rwaq gives learners the Arabic atmosphere that develops a sense of belonging as the founder of Rwaq said: “In Rwaq, the explanation is in Arabic along with use of teaching methods in English such as display and code. I see that this is a good combination. The psychological factor is influential here, because the lecturer is like me, speaks the same language and accent, and gives examples from Arabic culture. This feature contributed to the joining of more than 30000 students in one of the courses in Rwaq.” (P1, Administrator) Some respondents have an opinion that supporting Arabic language in Rwaq platform led to increase in the number of learners in Rwaq (P2, P8, P10, P11): “Sure. Number of learners in Rwaq increases continuously. Although Coursera platform is existing since 2012, but the number of Arab participants in Coursera is very few. We found that the Arab world needs Arabic educational platforms. In Arabic countries, illiteracy rates are high and we have problems in universities and admissions.” (P2, Administrator) Many informants believe that the majority of Arabic individuals cannot use English MOOCs easily because their English language skills are not good enough and may be non-existent (P3, P5, P6, P8, P10, P13, P14, P16, P17, P20, P22): “One of my sisters is weak in English, and she cannot benefit from foreign platforms to develop her skills. She is in high school and wants to know more about specializations to choose the one that suits her best. Hence, Arabic platforms are more appropriate for her.” (P14, Learner)

Because Arabic language is the mother tongue of Arabic people, courses provided in Arabic make the learning easier, quicker and deeper to such people (P6, P7, P12, P14, P16, P19, P21): “The foreign platforms require English skills. If student faces a difficulty in language, he/she will withdraw from the class. However, mother tongue is still dominating the

issue of education and it is more understandable.” (P7, Instructor) Few participants see that Rwaq and other Arabic platforms are solutions to the problem of the lack of Arabic content on the Internet (P4, P5):

“Teaching in these Arabic platforms makes me translate the English subjects into Arabic in order to teach it to students in Arabic. This contributes to enrich the Arabic content.” (P5, Instructor) Few participants admired the advantage of Arabic platforms to learn religious, Arabic subjects or Islamic history (P8, P9), when someone said that:

“Arabic language is better when teaching Arabic language and Islamic studies. Depending on the subject, you may prefer a certain language.” (P8, Instructor) Individuals with high English level may prefer using English MOOCs for different reasons (P8, P9, P17, P18): “For students who are fluent in English, they prefer English platforms because such platforms are more advanced. Meanwhile, other students are interested in Arabic platforms and they wait for its development.” (P9, Instructor)

Registering in Arabic or English MOOCs depends on the language proficiency of a learner in particular fields: “Often, I use MOOCs to take courses in Computer Science which is my specialization, so I join English platforms instead of joining the Arabic ones because I am more familiar with the Computer science in English. But if I want to learn subjects related to fields other than Computer science such as acquiring personal skills, administrative skills, skills of communication or social skills, I will search for Arabic courses unless I want to improve my English language.” (P15, Learner)

Likewise, few respondents remarked that some individuals who are proficient in Arabic and English languages choose the suitable platforms (Arabic or English) based on the type and the content of the subject (P16, P18): “Some fields like public relations and media are advanced in Arabic communities with a lot of training courses and books provided by Arabic pioneers. So, in this case I favor use Arabic platforms for learning such subjects.” (P18, Learner)

H. Other Suggested Factors by the Participants

A number of additional factors have been suggested by the participants including diversity of subjects, accreditation of certificates, cooperation of educational institutions, providing distinguished courses, marketing, quality of courses, social influence, time management skills and contextualize the content of Arabic MOOCs. Generally, the findings of the interviews showed that approximately all the participants endorsed the positive influence of the proposed factors on learners' decisions to continue to use Arabic MOOC: Rwaq platform. These findings are correspondent with previous studies' findings as revealed earlier in section II. Among the suggested influential factors by the participants, the social influence has been selected to

be included in the proposed model. Social influence means “the degree to which an individual perceives that important others believe he or she should use the new system” [50] (p.451). In the context of MOOCs acceptance/continuance, few studies validated the significant positive impact of social influence on behavioral intention to use/continue to use MOOCs, e.g. [1], [23]. Lee[51] reports that subjective norm has a significant positive influence on users' intention to continue using e-learning. In the MOOC continuance intention context, it is hypothesized as follows:

H. Social influence will have a significant positive effect on the continuance intention to use MOOCs and perceived usefulness. Furthermore, depending on the interviews' findings, the proposed model has been modified slightly with addition of relationships between the factors as shown in Fig. 2. Moreover, the findings of the interviews were helpful for developing measurement items for the questionnaire that better suit the context of the present study. Fig. 2 shows the revised proposed model after the interviews. Dashed and green lines and boxes in this figure indicate additional relationships and factors that were included into the proposed model according to the interviews findings.

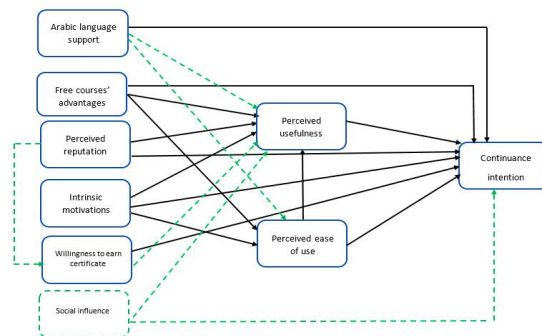


Figure 2 Revised proposed research model

CONCLUSION

The current study aims to address gaps in the literature related to information technology continuance intention by developing a theoretical model to predict the willingness of learners to continue to use Arabic MOOCs. In future research, the proposed model will be validated using the questionnaire method that will be analyzed by structural equation modelling statistical analysis technique. The present study is imperative for theoretical and practical reasons. For theoretical aspect, to the best of our knowledge, this research is the first study that examines the variables as well as the relationships between such variables that affect learners' intention to continue to use Arabic MOOCs taking into account cultural, individual-related, social, organizational and technological factors. In practical terms, the result of this research provides insights for the developers of Arabic MOOCs as well as the

instructors who teach courses in such platforms to drive the development and growth of Arabic platforms through better understanding of learners' participation in the Arabic MOOCs.

REFERENCES

- [1] B. Wu and X. Chen, "Continuance intention to use MOOCs: Integrating the technology acceptance model (TAM) and task technology fit (TTF) model," *Computers in Human Behavior*, vol.67, pp.221-232, 2017.
- [2] S. Mulik, N. Yajnik, and M. Godse, "Determinants of Acceptance of Massive Open Online Courses," *IEEE Eighth International Conference on Technology for Education (T4E)*, pp. 124-127, December 2016.
- [3] Y. Ouyang, C. Tang, W. Rong, L. Zhang, C. Yin, and Z. Xiong, "Task technology Fit Aware Expectation-confirmation Model towards Understanding of MOOCs Continued Usage Intention," In *Proceedings of the 50th Hawaii International Conference on System Sciences*, January 2017.
- [4] D. Shah, "By The Numbers: MOOCs In 2016," *Class Central's MOOC Report*, 2016. Available at: <<https://www.class-central.com/report/mooc-stats-2016/>> (Accessed: 6 June 2017).
- [5] R. Chu, E. Ma, Y. Feng, and I.K. Lai, "Understanding Learners' Intension Toward Massive Open Online Courses," In *International Conference on Hybrid Learning and Continuing Education*, Springer International Publishing, pp. 302-312, July 2015.
- [6] F.H. Chandio, "Studying acceptance of online banking information system: A structural equation model," *Doctoral dissertation, Brunel University Brunel Business School PhD Theses*, 2011.
- [7] A. Tarhini, "The Effects of Cultural dimensions and other Demographic Characteristics on E-learning Acceptance in Lebanon and England," *Unpublished PhD thesis, Department of Information System, Brunel University London, UK*, 2013.
- [8] G. Lowry, "Translation and validation of the technology acceptance model and instrument for use in the arab world," *ACIS 2004 Proceedings*, p.105, 2004.
- [9] A. Bhattacharjee, "Understanding information systems continuance: an expectation confirmation model," *MIS quarterly*, pp.351-370, 2001.
- [10] J. Lu, C.S. Yu, C. Liu, and J. Wei, "Comparison of Mobile Shopping Continuance Intention between China and USA from an Espoused Cultural Perspective," *Computers in Human Behavior*, vol. 75, pp.130-146, 2017.
- [11] M.S. Abbasi, A. Tarhini, T. Elyas, and F. Shah, "Impact of individualism and collectivism over the individual's technology acceptance behavior: A multi-group analysis between Pakistan and Turkey," *Journal of Enterprise Information Management*, vol. 28, no. 6, pp.747-768, 2015.
- [12] B. Kaba, and K.M. Osei-Bryson, "Examining influence of national culture on individuals' attitude and use of information and communication technology: Assessment of moderating effect of culture through cross countries study," *International Journal of Information Management*, vol. 33, no. 3, pp.441-452, 2013.
- [13] "Arabic Speaking Countries List 2017," *IstiZada*, 2017. Available at: <<http://istizada.com/complete-list-of-arabic-speaking-countries-2014/>> (Accessed: 6 June 2017).
- [14] H.B. Shapiro, C.H. Lee, N.E.W. Roth, K. Li, M. Cetinkaya-Rundel, and D.A. Canelas, "Understanding the massive open online course (MOOC) student experience: An examination of attitudes, motivations, and barriers," *Computers & Education*, vol. 110, pp.35-50, 2017.
- [15] C.S. Lin, S. Wu, and R.J. Tsai, "Integrating perceived playfulness into expectation-confirmation model for web portal context," *Information & management*, vol. 42, no. 5, pp.683-693, 2005.
- [16] Rwaq: The Arab Platform for Open Education, Available at: <<https://www.rwaq.org/>>.
- [17] S. Wangpipatwong, W. Chutimaskul, and B. Papisratorn, "Understanding citizen's continuance intention to use e-government website: A composite view of technology acceptance model and computer self-efficacy," *The electronic journal of e-government*, vol. 6, no. 1, pp.55-64, 2008.
- [18] F. Abdullah, and R. Ward, "Developing a General Extended Technology Acceptance Model for E-Learning (GETAMEL) by analyzing commonly used external factors," *Computers in Human Behavior*, vol. 56, pp.238-256, 2016.
- [19] P.F. Wu, "A mixed methods approach to technology acceptance research," *Journal of the Association for Information Systems*, vol. 13, no. 3, pp.172-187, 2012.
- [20] C.H. Ho, "Continuance intention of e-learning platform: Toward an integrated model," *International Journal of Electronic Business Management*, vol. 8, no. 3, pp.206-215, 2010.
- [21] K. Praveena, and S. Thomas, "Continuance intention to use Facebook: A study of perceived enjoyment and TAM," *Bonfring International Journal of Industrial Engineering and Management Science*, vol. 4, no. 1, pp.24-29, 2014.
- [22] F.D. Davis, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS quarterly*, pp.319-340, 1989.
- [23] F. Xu, "Research of the MOOC study behavior influencing factors," In *Proceedings of international conference on advanced information and communication technology for education*, Atlantis Press, Amsterdam, Netherlands, pp. 18-22, 2015.
- [24] J.H. Sa, J.M. Lee, T.W. Kang, G.Y. Gim, and J.B. Kim, "A Study of Factors Affecting the Intention of Usage in MOOC," In *Advanced Science and Technology Letters*, pp. 160-163, 2016.
- [25] W. Huanhuan, and L. Xu, "Research on technology adoption and promotion strategy of MOOC," In *Software Engineering and Service Science (ICSESS)*, 6th IEEE International Conference, pp. 907-910, September 2015.
- [26] S. Gao, and Y. Yang, "Exploring Users' Adoption of MOOCs from the Perspective of the Institutional theory," In the *Fourteen Wuhan International Conference on E-Business Human Behavior and Social Impacts on E-Business*, pp. 383-390, 2015.
- [27] K.M. Alraimi, H. Zo, and A.P. Ciganek, "Understanding the MOOCs continuance: The role of openness and reputation," *Computers & Education*, vol. 80, pp. 28-38, 2015.
- [28] N. Aharony, and J. Bar-Ilan, "Students' perceptions on MOOCs: An exploratory study," *Interdisciplinary Journal of e-Skills and Life Long Learning*, vol. 12, pp.145-162, 2016.
- [29] "Languages," *Class Central*, 2017. Available at: <<https://www.class-central.com/languages>> (Accessed: 7 June 2017).
- [30] A.M. Joseph, and B.A. Nath, "Integration of Massive Open Online Education(MOOC) System with in-Class Room Interaction and Assessment and Accreditation: An extensive report from a pilot study", *Proceedings of International conference Worldcomp 2013 held at Las Vegas, USA*, pp.103-111, July 2013.
- [31] S. Sanchez-Gordon and S. Luján-Mora, "Web Accessibility Requirements for Massive Open Online Courses", In *Proceedings of 5th International Conference on Quality and Accessibility of Virtual Learning*, pp.530-535, May 2014.
- [32] R.S. Adham, and K.O. Lundqvist, "MOOCs as a Method of Distance Education in the Arab World—A Review Paper," *European Journal of Open, Distance and E-learning*, vol. 18, no. 1, pp.123-138, 2015.
- [33] L. Yuan, and S. Powell, "MOOCs and open education: Implications for higher education," *Publications from the Centre for Educational Technology, Interoperability and Standards*, 2013.

- [34] S. Mohapatra, and R. Mohanty, "Adopting MOOCs for affordable quality education," *Education and Information Technologies*, pp.1-27, 2016.
- [35] S. Shrader, M. Wu, D. Owens-Nicholson, and K. Santa Ana, "Massive open online courses (MOOCs): Participant activity, demographics, and satisfaction," *Online Learning*, vol. 20, no. 2, 2016.
- [36] H. Davis, K. Dickens, M. Leon, M. Sánchez-Vera, and S. White, "MOOCs for Universities and Learners- An Analysis of Motivating Factors," In *Proceedings of the 6th International Conference on Computer Supported Education*, pp.105-116, 2014.
- [37] P.M. Feldman, R.A. Bahamonde, and I. Velasquez Bellido, "A new approach for measuring corporate reputation," *Revista de Administração de Empresas*, vol. 54, no. 1, pp.53-66, 2014.
- [38] R.M. Ryan, and E.L. Deci, "Intrinsic and extrinsic motivations: Classic definitions and new directions," *Contemporary educational psychology*, vol. 25, no. 1, pp.54-67, 2000.
- [39] S. Logan, E. Medford, and N. Hughes, "The importance of intrinsic motivation for high and low ability readers' reading comprehension performance," *Learning and Individual Differences*, vol. 21, no. 1, pp.124-128, 2011.
- [40] L. Zhao, Y. Lu, B. Wang, and W. Huang, "What makes them happy and curious online? An empirical study on high school students' Internet use from a self-determination theory perspective," *Computers & Education*, vol. 56, no. 2, pp.346-356, 2011.
- [41] M. Zhou, "Chinese university students' acceptance of MOOCs: A self-determination perspective," *Computers & Education*, vol. 92, pp.194-203, 2016.
- [42] Y. Xiong, H. Li, M.L. Kornhaber, H.K. Suen, B. Pursel, and D.D. Goins, "Examining the Relations among Student Motivation, Engagement, and Retention in a MOOC: A Structural Equation Modeling Approach," *Global Education Review*, vol. 2, no. 3, pp.23-33, 2015.
- [43] Y. Belanger, and J. Thornton, "Bioelectricity: A quantitative approach Duke University's first MOOC," Durham, NC: Duke Center for Instructional Technology, pp.1-21, 2013.
- [44] A. Norman, "The who, why and what of MOOCs," In *Proceedings ascilite Dunedin*, pp. 717-721, 2014.
- [45] A. Littlejohn, N. Hood, C. Milligan, and P. Mustain, "Learning in MOOCs: Motivations and self-regulated learning in MOOCs," *The Internet and Higher Education*, vol. 29, pp. 40-48, 2016.
- [46] M. Garrido, L. Koepke, S. Anderson, A. Felipe Mena, M. Macapagal, and L. Dalvit, "The Advancing MOOCs for Development Initiative: An examination of MOOC usage for professional workforce development outcomes in Colombia, the Philippines, & South Africa," *Technology & Social Change Group*, 2016.
- [47] R.F. Kizilcec, and E. Schneider, "Motivation as a lens to understand online learners: Toward data-driven design with the OLEI scale," *ACM Transactions on Computer-Human Interaction (TOCHI)*, vol. 22, no. 2, 2015.
- [48] J.A. Greene, C.A. Oswald, and J. Pomerantz, "Predictors of retention and achievement in a massive open online course," *American Educational Research Journal*, vol. 52-, no. 5, pp. 925-955, 2015.
- [49] N. Hakami, S. White and S. Chakaveh, "Motivational Factors that Influence the use of MOOCs: Learners' Perspectives - A Systematic Literature Review," In *Proceedings of the 9th International Conference on Computer Supported Education*, vol. 2, pp.323-331, 2017.
- [50] V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User Acceptance of Information Technology: Toward A Unified View," *Mis Quarterly*, vol. 27, no. 3, pp.425-478, 2003.
- [51] M.C. Lee, "Explaining and predicting users' continuance intention toward e-learning: An extension of the expectation–confirmation model," *Computers & Education*, vol. 54, no. 2, pp.506-516, 2010.

★ ★ ★