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A Review Paper on mhealth Continuous Intention Among Diabetes Users in The Developing Countries

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ABSTRACT

Technology interaction is nowadays the key player in the society problem solving in all aspects of human live. Recently, mobile health as one of innovative technological tools was introduced to bridge the health quality and capacity gaps. Yet, the proportion of mhealth users still low, especially in developing countries such as Arab World Countries. The past studies developed several theories and concepts with aiming to provide empirical models to improve the use of mhealth. Yet, most of them focused on either mhealth adoption from technological motivations or intention to use. This leaves a gap in the sustainability of mhealth. Therefore, this review paper aims to discuss the related work on mhealth types and its effectiveness in several diseases such as diabetes. The finding of this paper emphasizes that both technological and technological factors based on Technology Task Fit and Technology Acceptance Model are important to address mhealth continuous to use. This study also confirms that both objective and subjective measurements are important to ensure the quality of data analysis

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T1DM is a hyperglycemic metabolic disorder (Atkinson, Eisenbarth, & Michels, 2014). In all age groups, but particularly children and adolescents, this disease is known as insulin dependent diabetes (Gale, 2005). With a global incidence of around 3 to 4 percent annually rising (Patterson et al. 2012). It has been estimated that young people with T1DM will rise by 23 percent over the next 40 years in the United States (Patterson et al., 2012). In the US, there was expected a rise of 23 percent in the number of young T1DM patients over the next 40 years (Imperatore et al., 2012). Though T1DM accounts for only 5–10 percent of all diabetes cases, in most countries worldwide the prevalence of T1DM increases (Gong et al., 2015).The significant effect of poor glycemic control on the health of T1DM patients (Maahs, West, Lawrence, & Mayer-Davis, 2010), which eventually results in damage to a wide range of organs, including the skin, kidneys, heart , blood vessels and nerves (Herrath, Korsgren, & Atkinson, 2016). With the increasing numbers of people living with T1DM, an important goal is to improve diabetes care in order to reduce the health and economic burden of the disease (Atkinson et al., 2014).Studies have shown a positive impact on many aspects of T1DM, including the prevention and enhancement of both metabolic control and lifelong quality (Deacon & Edirippulige, 2015). The education in diabetes, however, is limited, with its availability severely constrained in clinics and hospitals. Mobile phones have a large market penetration and currently satisfy a variety of user needs (Deacon & Edirippulige, 2015)(Balkhi, 2015).In 2015, 88% of Americans either possessed mobile telephones or had them available, compared to 45% in 2004 (Lenhart, 2015). Mobile telephones are currently becoming instruments of patient training and support apart from their recreational function and are also useful for professionals (Piette et al., 2000).

A number of studies have shown that mobile, telehealth and similar movements have become increasingly popular as instruments for aiding diabetes people in managing their disease and reducing costs (Costa, Fitzgerald, Jones, & Dunning Am, 2009)The quality of life of diabetic patients also improves with New mHealth technology (Lyles et al., 2011).The clinically significant and well-documented impact of mHealth interventions on the management of HbA1c levels in type2 diabetes (Z. Huang, Tao, Meng, & Jing, 2015). The efficacy of online social networking services or use of mobile telephones as management intervention for patients with diabetes (Toma, Athanasiou, Harling, Darzi, & Ashrafian, 2014),found that social networking interventions have been beneficially reducing hemoglobin A1c (HbA1c) when compared to non-users. This is confirmed by an analysis of sensitivity; the intervention group showed a significant reduction in HbA1c (weighted mean difference [WMD]=0.46%; 95% trust interval. Despite the importance of Mobile Health in improving the quality of health services, especially in the incurable diseases such as diabetes, the use is still limited. This leaves a wide controversy among the health providers in how to improve their services which forms a research gap where academics can bridge it through exploring the factors that affect users' continuous intention to use mhealth.

Mobile Health Continuous Intention to Use

The strength of the user's readiness to use the data system again can be used as an independent variable. Some scholars interpret the continuing use of purpose as conduct after the first use. (Guo, Chen, Zhang, Ju, & Wang, 2020). More essential than the initial acceptation is the plan to use continuously (Al-Emran, Arpaci, & Salloum, 2020; Lee, Sung, & Jeon, 2019).The ongoing usage theory explores the mechanism of knowledge use by analyzing, consolidating and feed backing the process of interaction between users and goods, information and services. After the desire to use this platform is created by customers, the participation of users is essential for the knowledge-sharing process.

Technology theories of acceptance shed light on the dynamics that predict the early acceptance of technological applications. Conversely, the continuous theories or information technology (IT) are associated with the users' behavior to discontinue continue the use of technologies that have been used and experienced. Despite the similarity between IT acceptance and continuance in theoretical method, the contradictory between them is the continuance use whereby the first time of using mhealth was considered. Throughout the literature of information technology, Models of adoption and concept of use of emerging innovations, including driving factors suggested by TMA, innovation philosophy of diffusion, the UTAUT and the TPB, are more than just a matter of continuous application of the technology (Bhattacherjee & Lin, 2015; Wu & Chen, 2017). Thus, a wide body of the literature paid a considerable attention on the technology intention to use, which was developed through examining several theories include Technology Acceptance Model (TAM), Information System Continuance Model (ISCM), Task-fitting technology, Unified theory of acceptation and use of technology (UTAUT) and IS Model of performance, Expected behavior theory, Theory of rational action (TRA) (Nabavi, Taghavi-Fard, Hanafizadeh, & Taghva, 2016).

Technology Acceptance Model (TAM)

Model TAM was created in order to illustrate the driving factors of technical usage (Davis, 1986)

The TAM was created. The fundamental principle of (TAM) is that technology 's approach to particular technologies, which simultaneously and together affect its behavioral purpose as shown in Fig. 1, is affected by perceived easy-to-use and perceive usefulness. The importance of TAM is its use in forecasting the use of IS in the initial stage (Liao, Palvia, & Chen, 2009; Zheng, 2020), which helps in predicting the problems in the technology design before using the technology by large amount of users (Morris & Dillon, 1997). There are core constructs whereby the TAM can be defined as shown in Table 1. TAM has been revised (Davis, Bagozzi, & Warshaw, 1989) The relationship between technology perceived usefulness and purpose to use was not fully mediated by removing the attitude of users from the original model (Figure 1.).

Figure 2. TAM (Davis, Bagozzi & Warshaw, 1989).

Table 1. Definitions of TAM variables

Construct	Definition
Perceived usefulness	The perceived value of the technology is understood in the user's view as improving the performance of this technology (Davis, Bagozzi & Warshaw, 1989).
Perceived ease of use	"The perceived ease of use is to be described as the degree to which users believe that technology can be used smoothly without any great effort (Davis, Bagozzi & Warshaw, 1989).

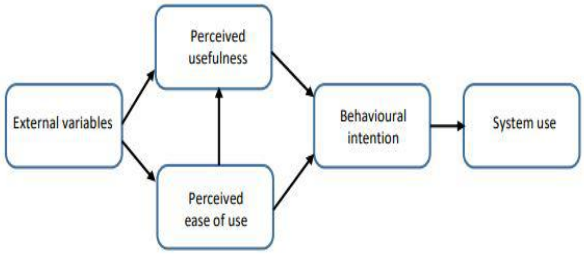


Figure 2. Revised TAM (Davis, Bagozzi & Warshaw, 1989).

TAM was widely use in predicting technology continuance intention to use and it was considered as the second used theory (Nabavi et al., 2016). Even though, TAM has widely use in the literature, it was not immune of several limitations. First, the results of this theory may suffer of generalization (J. S. Lee, Cho, Gay, Davidson, & Ingraffea, 2003) since the data was validated from university students (Davis, Bagozzi & Warshaw, 1989). Second, the variance in behavioral intention

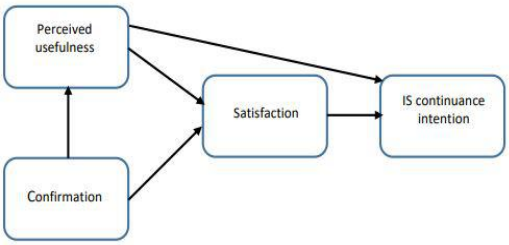
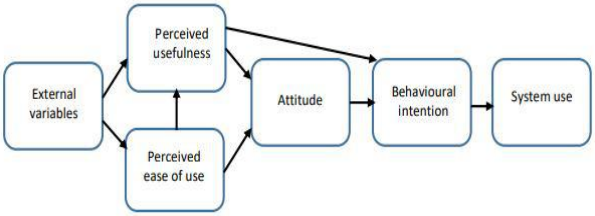


Figure 2. IS continuance expectation-confirmation model (Bhattacherjee, 2001b).



was explained by only 40% (Davis, Bagozzi & Warshaw, 1989), which is considered partial explanatory influence (Al-Aulamie, 2013; Sun & Zhang, 2006).

Information System Continuance Model (ISCM).

Information System Continuance Model (ISCM) was introduced by Bhattacherjee (2001) with aiming to explain the continuous usage of information technology instead of information technology implementation. ISCM integrates some of TAM dynamics, particularly the factors that influence customers' behavior to market or consume any product, which can be seen in Expectancy Confirmation Model (ECM). According to the ECM, customers' preferences towards particular product or service and the way of validation these preferences has potential influence on customers' decision to make action and buy. Similarly, to IT applications and programmers whereby the valid assumptions of customers about the technology will There are three key divers of ISCM that influence technology.

technology. There are three key divers of ISCM that influence technology continuous use intention, which include perceived usefulness, confirmation of anticipation and the satisfaction of the users, whereby the confirmation of anticipations influence users' satisfaction through perceived and concurrently influence users' continuous intention as shown in Figure 2.

Table 2. Definitions of ISCM variables

Construct	Definition
IS continuance	Users' intention to use technology continuously" (Bhattacherjee, 2001b)
Satisfaction	"Users' testing technology reflects their feelings towards that technology" (Bhattacherjee, 2001 p.359).
Perceived Usefulness	"users' understanding about the benefit of the used technology" (Bhattacherjee, 2001 p.359).
Confirmation	"Users' consciousness of the match between expectation of technology use and its actual outcome" (Bhattacherjee, 2001 p.35)

ISCM offers a phenomenal starting base for the continuation of the IT inquire about. However, in order to recognize the p urpose to proceed in new innovation environments, ISCM sh ould be expanded by adding new variables reflecting the exc eptional properties of the current invention, in order to impro ve its core and prescient ability (Bhattacherjee, Perols, & Sanford, 2008; Lin, Featherman, & Sarker, 2017).

Theory of Reasoned Action (TRA)

Theory of reason action was built up in social psychology (Fishbein & Ajzen, 1975). The underlying logic of this theory is lied on person's intention to act and behave with a definite aim in attention is the direct determining factor of that behavior. The essential constructs of TRA are the social objective, the emphasis and theoretical norm (Figure 3). While this theory was primarily formulated for research in social psychology studies, various research in IS was connected to the aim to employ new technology in action. Table 3 demonstrates the importance of TRA dynamics.

Figure 3. TRA (Fishbein & Ajzen, 1975).

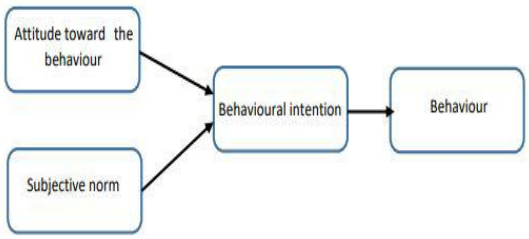


Table 3. Definitions of TRA dynamics

Construct	Definition
Behavioral intention	Refers to the individuals reaction towards particular behavior (Ajzen, 1991).
Attitude towards the behavior	"The degree of judgement to which an individual has a unfavorable or favorable assessment or evaluation of the behavior in inquiry" (Ajzen, 1991).
Subjective norm	"social pressure perceived by individuals to perform or not a target behavior" (Ajzen, 1991).

For instance, one of the weaknesses is referred to as a "correspondence" (Ajzen, 1985), which proposes the possibility of predicting personal actions by TRA if attitude and purpose are linked to achievement, environment, goals, and time (Entner & Wright, 2012; Sheppard, Hartwick, & Warshaw, 1988).In addition, an additional vulnerability is clearly suitable for predicting potentially controlled actions (Yousafzai, Foxall, & Pallister, 2010). This is because of hypothesizing TRA where the practices are directly estimated by intention lacking of bearing in mind the restraints, for instance, time, money and so that people cannot be comfortably treated. In This theory does not replicate different kinds of accomplishments in this way, for instance, routine actions, irrational selections, or conduct that isn't deliberately deliberated (Samaradiwakara & Gunawardena, 2014). Additionally, TRA is a simple model because it does not take into account beliefs that approximate an assumed behavior. (Samaradiwakara & Gunawardena, 2014) Too claim that attitudes and norms are difficult to be disturbed (attitudes can be turned into expectations and vice versa).

Information System (IS) Success Theory

Service quality was recognized as one of the main determinants of information system use and customer satisfaction due to the changing technological trends. (DeLone & McLean, 1992) developed the IS model that has been adopted by many IS researchers in recent years to test the performance of IS in a variety of fields.

(Chatterjee, Chakraborty, Sarker, Sarker, & Lau, 2009)(D'Ambra, Wilson, & Akter, 2013). Examining the perception of IS success, (DeLone & McLean, 1992), Established a popular information model for information systems management. "System quality" measures technological performance; "knowledge quality" measures semantic performance; and the model (IS Progress Model- see below) measures good effectiveness (Delone & Mclean, 2004) as well as the "usage, user happiness, individual results," and the "organizations influence".

This model has however been criticized because some drawbacks tend to emerge from the 'stand-alone' focus on IT quality and system quality, showing that the complete effect is decided on by only the system 's qualities itself, which cannot explain why the same IT system can be applied in another way and for various reasons have very different effects. In order to resolve such constraints (Delone; McLean, 2003),the original model has been revised by linking service quality to information quality, and integrating the individual and organizational impacts to become a unifying aspect and renaming the net profit as a net benefit referring to cumulative behavior of the final outcome of the use of the information system (Delone; McLean, 2003).

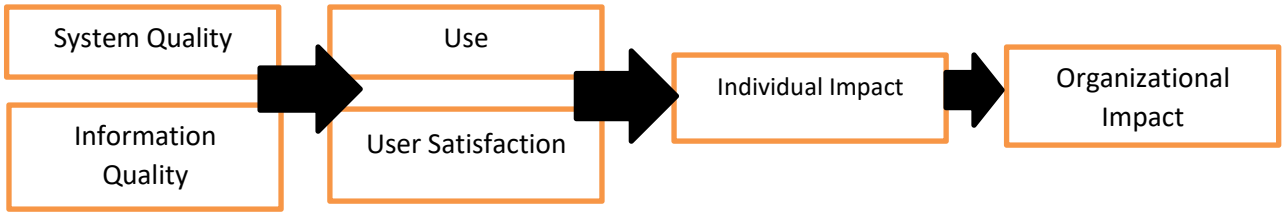


Figure 4. Adopted from (DeLone & McLean, 1992), (Delone; McLean, 2003)

Servqual and e-s-qual model

Despite several criticisms against the application of the model in certain contexts, the model SERVQUAL (Parasuraman, Valarie A., & Leonard L., 1988)is among the most frequently employed models for evaluating service-quality characteristics in different fields (Saghier & Nathan, 2013) (E. Y. Huang, Lin, & Fan, 2015).Exploring the concept of quality of service (Parasuraman, Zeithaml, & Berry, 1985),indicates that the expectations of a consumer are diverging from actual service performance. In order to meet consumer expectations and to close that gap, they proposed quality service delivery and therefore the SERVQUAL model was developed The SERVQUAL model, developed by (Parasuraman et al., 1988).

It was initially established ten dimensions (10) of service quality. Three years later, these measurements have been revised and further narrowed to only five dimensions used to measure quality of service. The five main dimensions of SERVQUAL are: reliability (the ability to conduct promised service in a consistent and effective manner); protection (courtesy of staff, their expertise and the ability to inspire trust and trust).; responsiveness (ready to support customers and provide timely service). (Parasuraman, Berry, & Zeithaml, 1991)(Parasuraman & Berry, 2004).

The change in service delivery into technological growth led to the formation of an electronic quality scale (Parasuraman, Zeithaml, & Malhotra, 2005),abbreviated E-S-QUAL in order to assess the technical and offline aspect of service quality of websites and virtual shopping platforms for goods and services. E-S-QUAL contains four main elements: reliability (in terms of speed and ease of access to a website); compliance (in terms of the availability of ordained products and rapid feedback reactions); device compatibility and privacy (consumer data protection). Most researchers recognize and use the E-S-QUAL model to calculate the efficiency of the websites platform (Marimon, Vidgen, Barnes, & Cristóbal, 2010). Intensive criticism of the conceptual structure and the calculation process from different researchers has been made of the SERVQUAL and E-S-QUAL. In the field of health, (Dagger, Sweeney, & Johnson, 2007) The mixed results generated in recent years by the SERVQUAL scale have been highlighted which render the model multidimensional.(Dagger et al., 2007),cited studies of (Headley & Miller, 1993), Identify certain SERVQUAL scale measurements.(Lytle & Mokwa, 1992), Seven measurements found in an emergency room and in a health clinic for fertility, whereas (Headley & Miller, 1993), Six dimensions were established in the primary care model where only the expectation and performance difference is assessed. Lu et al. (2009) and Huang et al. (2015) claim that SERVQUAL and E-S-QUAL are good methods for assessing mobile service quality due to the special mobile service characteristic. Babakus & Boller (1992) assume that customer experience tests provide more knowledge than customer perceptions of servicemeasurements.

Rondos Service Quality Model

In order to calculate the perceived quality of service, quality using quality metrics has been first introduced (Gronroos, 1984).Technological efficiency, accessibility and corporate image are key components of the model. Technological quality can be characterized as the quality of what the customer actually receives because of the relationship between the supplier and the consumer; functional quality refers to how the consumers obtain the technical results or the way services are supplied to the consumer. (Gronroos, 1984) stressed the use of standards as a reference norm for assessing service efficiency.

Donabedian's Service Quality Model

(Mittermayer, Huić, & Mestrović, 2010), A quality service model for healthcare was originally created. Two main elements have been identified, namely technological quality and interpersonal quality. The use of medical science and innovations in healthcare is scientific quality, while the relationship between the healthcare provider and its customers is the measure of interpersonal quality. After its inception (Mittermayer et al., 2010),other health scientists (Shahriar Akter, D'Ambra, & Ray, 2013) have been extended to include a more professional and interpersonal consistency dimension (Dagger et al., 2007). (Zineldin, 2006), It has identified five attributes for quality of service, namely the quality of objects, the processes, the infrastructure, interaction and the atmosphere and (Dagger et al., 2007). Their quality is interpersonal, technical, environmental and administrative. The relationship between users and service providers is reflected in interpersonal work. The result of the service process is technical quality. The atmosphere and tangible are examined by environmental quality, while the administrative quality takes account of the production of the core service while adding value to the usage of a service.

Conceptualization of mHealth Technology Service Quality

Most studies on perceived service quality characteristics in the healthcare sector focus on generic quality model services (Meigounpoory, Danehzan, & Student, 2014; Sharma & Sharma, 2019) . However, some researchers strongly argued that a clear distinction should be drawn between quality of the mHealth service and other current quality of the service because of mHealth technology's unique features such as virtual consultation, ubiquity, accessibility, personalized nature, urgency, interactivity and mobility (Kim, Kim, Lee, & Kim, 2019; Motamarri, Akter, Ray, & Tseng, 2014). Similarly, (E. Y. Huang et al., 2015) It also demanded a clear distinction to be made between the quality of service attributes of mobile and wired applications, such as computers, because of the unique features that each of them has. Mobile implementation of health technology could still be argued in infancy (Shahriar Akter, D'Ambra, Ray, & Hani, 2013; Shahriar Akter, Wamba, & D'Ambra, 2019; Deng, Mo, & Liu, 2014). Early scientific writings of mHealth technology's service quality did not use a valid level to directly measure key quality attributes of mHealth services. (Shahriar Akter, D'Ambra, Ray, et al., 2013; D'Ambra et al., 2013). (Meigounpoory et al., 2014), He shares a similar view with (Shahriar Akter et al., 2019) and stressed that mHealth services quality empirical research has not yet been satisfactory.

Similarly, (Y. Lu, Zhang, & Wang, 2009), It has been shown that no current scales tests service quality explicitly in m-commerce in general, because researchers are often tempted to use the conventional marketing and management quality scale of service. Mobile technology studies have shown that a generic model could not be sufficient to measure mobile technical outputs effectively and that some researchers have therefore called for generic model integration.

Multi-dimensional and hierarchical level of service (Shahriar Akter, D'Ambra, Ray, et al., 2013; Brady & Cronin, 2001). (Fassnacht & Koese, 2006) This level of service must be considered as a system of higher order that includes different sub-dimensions. In addition to quotations from the health literature, mHealth has recently developed a method to assess and forecast the quality of services for the growth of the economy by using marketing models, information systems and health management as a guiding model. Three key factors have been found to have a significant effect on the quality of mHealth services contributing to continued satisfaction. It is device consistency, consistency of interaction and quality of knowledge. The following section explores these special attributes further

Theory (IS Success Model)

Two stakeholder classes are workers and customers of IS facilities. The IS Adoption Theories and Models predominate on the adoption and usage of research; examples include the use by the (Mardiana, Tjakraatmadja, & Aprianingsih, 2015) of Unified Technology Acceptance and Use (UTAUT) Models and Role Fit (TTF) Models (H. Wang, Tao, Yu, & Qu, 2020) and the theories on innovation diffusion (Lu & Gustafson, 1994). The following are some examples In addition, mobile systems adoption through IS success (Petter & McLean, 2009), which was fragment and focused on preadoption stage using TAM or UTAUT models (Motiwalla, Albashrawi, & Kartal, 2019). In the post-adoption level, several research on mobile adoption centered on customer behavior. (Akter & Ray, 2018), Recognized the advantages of continuous use and customer engagement to realize the full value of IT investments and mobile health survival performance. Studies by (Motiwalla et al., 2019), measured the use mobile bank and stated that objective measures are more reliable in capturing the usage compared to subjective measures. However, a little of studies used objective measures for system usage, which may because of the difficulties that are associated with accessing to needed data

(Motiwalla et al., 2019), states that IS success model provides strong validation for the success of mobile systems. Many empirical studies in the literature confirm that quality service system through quality system, which includes technical success, quality of information, which includes semantic success and quality of interaction, which measures customers services are all positively associated with users' satisfaction to use the system and get benefits (Delone; McLean, 2003; Petter, Delone, & McLean, 2013). For example, (Shahriar Akter et al., 2019; Oppong et al., 2018), use IS success model to examine the relationship between quality service system of mobile health and users' satisfaction and continuous intention to use. Ironically, these studies paid attention to the subjective measurements with heterogeneous sample, which may affect structural and measurements model validity due to bias finding. Thus, to overcome this problem, this study used both subjective and objective measurements approach. (Delone; McLean, 2003) suggested that "use must precede user satisfaction". This makes IS success model more appropriate

Table 5. technology user' satisfaction and continuous intention to use

Authors	Objective	Methodology	Finding	Limitation
(Li & Shang, 2020)	examine the association between government website service quality and perceived value towards intention to use	A survey gathered from 1650 citizen who live in four intensive cities in China	The result of smartpls shows that e. governments service which, include (system quality, reliability, security, accessibility, information quality, service capability, interactivity, and responsiveness) has positive significant relationship with continuous use e-government and citizen satisfaction	Explore new item Test new its
(E. S. T. Wang & Lin, 2017)	Evaluating the effect of customer quality perception (information quality, system quality, and service Quality) on their trust and intention to use location-based services (LBS)	Survey of 1399 customers in Taiwan was used and analysed by structure equation model	Information quality, system quality, and service quality were positively associated with customers' trust and continuous usage intention LBS	Use experimental Introduce privacy Use this model from different perspective Apply in other countries
(Martins et al., 2019)	Examines the effective factors for the use of education management information system in high education	A survey of 403 respondents were gathered from three Portuguese universities and analysed by partial least squares	Based on Information System theory, the finding shows that information quality (IQ) and service quality (SQ) can act as possible triggers to the arising of net benefits associated with using education management information systems.	Extend the studies to another national and international institutions with considering other control such as experience
(Sharma & Sharma, 2019)	Examining the role of trust and quality dimensions in the actual usage of mobile banking services:	An online survey conducted with 227 Omani residents and analysed by Structure Equation Model	Service quality, information quality and trust are positively associated with m-banking use mediated by customers' satisfaction	Data was limited to academic users rather than all Moderate effect of demographic characteristics
(Vaghefi & Tulu, 2019)	To understand continued use of mHealth apps and individuals' decisions related to this behavior.	Qualitative longitudinal study on continued use of mHealth apps and interview gathered from 17 participants	Two dimensions were recognized to influence continued use decisions of users of mHealth apps: users' assessment of mHealth app and its capabilities (user experience) and their persistence at their health goals (intent).	The collected information was self-reported focused on a limited range of mHealth apps (ie, health and wellness
(Aparicio, Oliveira, Bacao, & Painho, 2019)	Determine the key drivers of massive open online course (MOOC) success	Online survey was gathered from 310 students from various countries	Information quality influences user satisfaction, rather than system quality, service quality, use, and gamification the relationship between information quality, system quality, service quality, and MOOC use are not confirmed	Longitudinal data Evaluating users' behavior
(Kim et al., 2019)	identified the critical quality dimensions for continuance intention of mHealth services	A survey response from 191 mHealth service users of Korean college students.	Engagement, content quality, and reliability had significant effects on continuance intention, while privacy and usability were insignificant. In addition, relative effects of the quality dimensions on continuance intention were not proportional to those on satisfaction	Generalization data to another context
(Shahriar Akter et al., 2019)	Proposing quality model for service systems using sociomaterialism	Survey was gathered from 507 of rural Bangladesh and smartpls was used for analyzing	Service system quality has a positive association with service system value which affect users' satisfaction and continuous use. The study advances theory and practice in service systems quality research by focusing on individual, economic and social outcomes.	Generalizing limitation since the finding from single country
(Escobar-Rodríguez & Carvajal-Trujillo, 2014)	Examine determinants of online purchasing flights from low-cost carrier websites.	A survey distributed to 1096 Spanish consumers of LCC flights	The finding shows that UTAUT determinants towards online purchasing behavior. The findings also indicate that the main antecedents of trust, in order of relevance, are: information quality, perceived security and privacy protection	Longitudinal data
(Daıhan & Akkoyunlu, 2016)	Examine the effective factors towards customers' satisfaction and intention to use e-learning	Data from 467 public university students who had used an online learning environment for the first time from Information Systems Success Model and Information Systems Expectation Confirmation Model.	The usage of online learning explained by information quality, system quality and service quality variables. In addition, satisfaction is influenced by information quality, system quality, service quality, confirmation, utilitarian value, outcome expectations and perceived value	Focused on continuous intention with more expert students rather than intention

through introducing users' satisfaction and continuous intention to use as dependent variable

LIMITATION AND FUTURE RESEARCH

Mobile health is the promise technology for solving society issue of improving health quality and outreach. Yet, the use of mobile health still hummable and in the lowest rate. Recently attracted both users and providers intention, especially during Covid19, where the mobility of the patients is restricted by both hospital capacity and safety concern. The literature owes this issue to the customers' behaviour to continue use mhealth. Thus, many studies attempted to address this issue and bridge this gap through providing a model that influence users behaviour towards mobile health. Yet, most of them paid attention to how to attract users' intention to use or how to encourage health providers to adopt mhealth, rather than providing a clear understanding in how to encourage and motivate users to continue use mobile health. Even though, many studies recognized this gap, their studies used subjective measurements, such as the factos that influence users' behaviour either by using TAM, UTAUT or other theories, but without showing a clear distinctive between these measurements, which affect the overall results. For example, the use of mobile health can be affected by the type of disease or the age of the users or even their experience and other demographic factors. Therefore, the future research should address these issues through exploring the factors that influence users' continuous intention with taking into consideration the use of both subjective and objective factors through mixed methods or long attitudinal research.

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