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RESEARCH ARTICLE

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**THE DETERMINANTS OF E-CONFERENCE ACCEPTANCE
DURING COVID-19 PANDEMIC***

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ABSTRACT

With the impact of the COVID-19 pandemic continuing to be felt globally, it is essential that people quickly adapt to a new virtual business landscape, in order to continue to provide a valuable conference experience. E-conference, in other words web conference or virtual conference, is an online conference that involves people participating in a conference through a virtual environment on the web, rather than meeting in a physical location. The objective of this paper is to inspect several reasons of behavioural intention to use an e-conference system by utilizing the modified technology acceptance model (TAM). Together with primary elements of TAM, in this particular paper, additional constructs such as satisfaction, time, price savings, technical support, mobile anxiety, social influence and convenience are taken into account. Total of 203 questionnaires is gathered through academicians in Turkey. To evaluate the data and examine the proposed hypotheses, the Structural Equation Modeling (SEM) methodology is implemented by utilizing SmartPLS 3.2.7. The results indicate that convenience, mobile anxiety, satisfaction, perceived usefulness and social influence are significantly predicting the behavioural intention. This paper enables theoretical and practical implications for authorities seeking to implement an e-conference.

Keywords: *E-conference, Structural Equation Modeling, Technology Acceptance Model, Price Savings, Mobile Anxiety.*

COVID-19 PANDEMİ SÜRESİNCE E-KONFERANS KABULÜNÜN BELİRLEYİCİLERİ

ÖZ

Küresel olarak hissedilmeye devam eden COVID-19 salgınının etkisiyle, insanların yeni bir sanal iş ortamına, yani yüz yüze görüşmeden sanal toplantı formatına, geçişe hızla adapte olması oldukça önemli. E-konferans, diğer bir deyişle web konferansı veya sanal konferans, fiziksel bir yerde toplantı yapmak yerine web üzerindeki sanal bir ortam aracılığıyla bir konferansa katılan kişileri içeren çevrimiçi bir konferanstır. Bu çalışmanın amacı, değiştirilmiş teknoloji kabul modelini (TKM) kullanarak e-konferansı kullanmak için çeşitli davranışsal niyet faktörlerini incelemektir. TKM'nin temel unsurları ile birlikte, bu makalede memnuniyet, zaman, fiyat tasarrufu, teknik destek, mobil kaygı, sosyal etki ve kolaylık gibi ek yapılar dikkate alınmıştır. Türkiye'deki akademisyenler aracılığıyla toplam 203 anket toplanmıştır. Verileri değerlendirmek ve önerilen hipotezleri test etmek için SmartPLS 3.2.7 yazılımı kullanılarak Yapısal Eşitlik Modelleme (YEM) metodolojisi uygulanmıştır. Sonuçlar, kolaylık, mobil kaygı, memnuniyet, algılanan yararlılık ve sosyal etkinin davranışsal niyeti anlamlı şekilde etkilediğini göstermiştir. Bu makale, e-konferansı uygulamak isteyen yetkililer için teorik ve pratik birtakım çıkarımlar sağlamaktadır.

Anahtar Kelimeler: *E-konferans, Yapısal Eşitlik Modellemesi, Teknoloji Kabul Modeli, Fiyat Tasarrufu, Mobil Kaygı.*

1. INTRODUCTION

COVID-19 (Novel coronavirus) is first documented at the end of 2019 in Wuhan, China as the fastest-growing epidemic of coronavirus in the last decades (World Health Organization, 2020a). Compared to other epidemics, both in China and the whole globe, COVID-19 is unique in terms of its extraordinary morbidity and mortality (World Health Organization, 2019). At the end of January 2020, the World Health Organization confirmed the epidemic as a worldwide general health emergency (World Health Organization, 2020b). Therefore, it is vital to understand the progress of scientific information about COVID-19 to direct the future studies and policy-making.

In the literature, there are numerous studies on COVID-19, which are mainly focused on developing mathematical or decision-making models, in different disciplines. For instance, Whitelaw et al. (2020) proposes an agenda for the novel digital tools in managing pandemic, and mentions countries that have implemented these tools successfully. Mbunge (2020) analyzes the possible opportunities and challenges of integrating emerging technologies into COVID-19 contact tracing. Zolfani et al. (2020) proposes a gray-based decision support framework to select a site for hospitals for COVID-19 patients in Istanbul, Turkey. Mollenkopf et al. (2020) examines the supply chain management of the food industry during COVID-19 pandemic. Rizou et al. (2020) reviews the transmission ways of COVID-19. Marelli et al. (2021) evaluates the psychological impact of COVID-19, specifically sleep quality, on administration staff and students in Italy. Tirkolaei et al. (2021) presents a mathematical model in order to manage waste management during the pandemic. Albahri et al. (2020) develops a model for the convalescent plasma transfer to the COVID-19 patients using machine learning and multi-criteria decision-making methods (MCDM). Lastly, Bonifati et al. (2020) shares their decisions, experiences, and lessons learned from the conference that moved to a fully synchronous online experience due to the COVID-19 outbreak.

Technology is now at its height and it is the key component of the everyday lives of people. Technology is an unavoidable element, whether it is in business or for homes. One of the new additions that has really benefited researchers, scholars, business owners to a great extent is e-conference or

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electronic conference. With the effects of the pandemic, like COVID-19, still being felt worldwide, it was important for individuals to adapt rapidly to a modern virtual work environment, in order to maintain the valuable conference experience. The definition of e-conference is an electronic meeting in which individuals join a conference via an electronic medium. While individuals sit and discuss any problems with each other in a conventional conference, two or more individuals are together in a virtual realm in the event of an e-conference. Therefore, people can also attend from different parts or corners of the world for a meeting or conversation without taking a flight or driving long distances.

Due to its infinite advantages, the e-conference system is becoming extremely important. Firstly, a huge amount of money and time has been saved by e-conferencing by cutting the expenses of flights and accommodation. Furthermore, it may take more time and effort to arrange conventional meetings than to simply invite participants to an e-conference. In e-conferences, the host of the meeting does not have to spend a huge amount of effort to reserve a conference room, to prepare the agenda and to schedule a date that will be suitable for everybody, which are inevitable in conventional ones. Thirdly, it is not really easy for individuals to drive such long distances to attend a conventional meeting that is unexpectedly scheduled. E conference allows you to communicate anytime and anywhere. All you need is a good connection to the internet and a computer such as a laptop or tablet. Finally, e-conference systems are frequently used to minimize the impact of the negative situations brought about by the Covid-19 epidemic.

In spite of the fact that the usage of e-conference systems increases, studies on acceptance of e-conference system are limited. Hence, our objective is to fill this gap by discovering reasons affecting academicians' preferences of the e-conference system in Turkey. So as to develop a theoretical model to examine the e-conference acceptance, the TAM was utilized.

The remaining of this study is provided as follows: The next section reviews the background of the subject. Then, research methodology and hypotheses are provided. Lastly, results and recommendations for further study are presented in the last sections.

2. LITERATURE REVIEW

As already mentioned in the previous part, there are many advantages of using e-conference systems. However, users' attitudes about adopting and accepting the e-conference systems may be positive or negative. These attitudes are very important in evaluating the system overall performance since the acceptance of new technology can only be achieved by user acceptance. At that point, it should be clarified that the experienced, talented and innovative individuals may have a positive attitude about these systems at the first sight. On the other hand, these kinds of users should also be supported by activities such as technical support, training, etc. Therefore, antecedents of adoption of the e-conference systems must be surveyed carefully to understand the possible problems better.

In literature, a wide variety of methods; for instance, theory of reasonable action, theory of planned behavior and technology acceptance model (TAM) have been proposed to determine the factors affecting the users' attitudes. However, in order to interpret the behavioural intention to use information systems e.g. e-conference systems, researchers commonly employ the TAM since it emerged from both theory of reasonable action and, theory of planned behavior (Sternad & Bobek, 2013).

Davis et al. (1989) has developed the TAM to enlighten the behavior of users towards adoption or usage of the information technologies. The method contains two specific beliefs such as perceived ease of use (PEOU) and perceived usefulness (PU). According to Davis et al. (1989), these two beliefs are the main determinants of intention to use. In this study, researchers also show that the most significant factors for accepting a new technology are PEOU and PU. Lee et al. (2011) prove that these factors also play an essential role in reducing the user resistance to adoption.

TAM is now a widespread analytical technique for evaluating acceptance of new systems in several businesses; for instance, healthcare, energy, education, etc. Some of the researches in TAM can be briefly summarized as follows: wireless internet systems (Lu et al., 2003), internet banking (Lai & Li, 2005), online shopping and e-commerce (Ha & Stoel, 2009; Pavlou, 2003), smartphones (Özbek et al., 2014), enterprise resource planning (Hancerliogullari Koksalmis and Damar, 2021), e-learning and m-learning

(Gómez-Ramirez et al, 2019; Al-Adwan et al., 2018), green roof systems (Hancerliogullari Koksalmis & Pamuk, 2021), social media (Rauniar et al., 2014), e-hospitals (Chang et al., 2015), telemedicine (Kowitlawakul, 2011), medical devices (Koksalmis, 2019), e-commerce (Hancerliogullari Koksalmis & Gozudok, 2021).

Structural Equation Modeling (SEM) observes the connections between independent and dependent variables, statistically (Ulucan, 2018). It contains two essential phases. Initially, a series of regression equations represent the causal processes. In the second stage, the structural relationships are formed visually to show the relations in a better way (Byrne, 2011). SEM aims to determine whether the formed theoretical model is supported by the existing data. Also this technique utilizes the hypothesis testing to examine the theoretical models and thus uncover the relationships between constructs (Schumacker & Lomax, 2012). The existing data is evaluated using a multivariate analysis approach, the partial least squares structural equation modeling (PLS-SEM), for statistical analyses. PLS-SEM method has many benefits. Some of these benefits include not requiring specific assumptions related to data and distributions for variables; assuming errors are not correlated; not requiring large samples (Sternad et al., 2011).

However, when we surveyed the literature, we observed that there is a scarce of literature about the factors affecting the behavioural intention to use e-conference systems. In spite of the increasing practice of e-conference systems, studies about factors affecting the acceptance of e-conference systems are very limited. In response to this shortage, we contribute to the related literature by developing an integrated model to examine users' intention to use e-conference through the TAM. The PLS-SEM method has been applied. We aim to fill the gap in literature by exploring the dynamics that impact the acceptance of an e-conference system in Turkey during COVID-19 pandemic.

3. RESEARCH MODEL AND HYPOTHESES DEVELOPMENT

While building our research outline, we apply the TAM Original TAM involves PU, PEOU, actual use (AU) and behavioural intention to use (BI). From the perspective of TAM, the behavioural intention to use is suggested

to be influenced by both perceived usefulness and perceived ease of use. It studies the user's acceptance for an information system and one of the most influential models in this subject (Lee et al., 2003; Venkatesh & Davis, 1996). Fig. 1 depicts the developed research model.

BI is "the degree to which a person has formulated conscious plans to perform or not perform some specified future behaviour" (Venkatesh, 2000). This implies likelihood that a person is occupied with a specific behaviour (Ajzen & Fishbein, 1980).

CON refers "individual's preference for convenient products and services." (Hsu & Chang, 2013). In other words, a system is considered to be convenient when it saves time for a user. Several researches have shown the link between convenience and BI (Hsu & Chang, 2013; Hazen et al., 2015). So, the following hypothesis is proposed:

H1: "Convenience is positively linked to the behavioural intention to use e-conference."

SI is "a person's perception that most people who are important to him think he should or should not perform the behaviour in question" (Fishbein & Ajzen, 1975). In theory of reasonable action and Extended TAM, social influence, which directly impacts BI, is indicated as a subjective rule. Throughout the initial phases of personal interaction with the technology, social influence is a key. It is suggested that the effect of SI on BI is positive. Users want to use an e-conference system if it's used or suggested to be used by their relatives, networks or colleagues. So, the following hypothesis is proposed:

H2: "Social influence is positively linked to the behavioural intention to use e-conference."

SAT is well-defined as "a state when individuals feel satisfied, neutral, or dissatisfied when outcomes are greater, equal to, or below expectations or desires" (Amoroso & Lim, 2017). The more the user is fulfilled and satisfied, the more he/she has a tendency to have a positive demeanor towards using. As Ho (2010) proposed, satisfaction is positively related to intention and attitude. Numerous studies provide a connection between satisfaction and attitude in the literature (Basak & Calisir, 2015; Ho, 2010; Liao et al., 2009).

So, hypothesis is developed as follows:

H3: *“Satisfaction will have a positive impact on the behavioural intention to use e-conference.”*

TIME effectiveness is a proportion of the exchange time costs. According to Becker (1965), the shopper amplifies their utility subject to pay requirements as well as time imperatives (Dellaert et al., 1998). By diminishing data asymmetry and amazements, for example, conveying incorrectly items and missing conveyance dates, clients find web based shopping simple to utilize and less tedious. If e-conference is time effective, users are going to be satisfied with the overall performance of the electronic channel. Earlier research has exposed that time positively affects behavioural intention to use (Devaraj et al., 2002). So, the following hypothesis is proposed:

H4: *“Time is positively linked to the satisfaction of e-conference.”*

PR is a proportion of store ability in light of the fact that as administrative costs decline, reserve funds could be given to purchasers (Konana et al., 2000). If e-conference is price saving, users are going to be satisfied with the overall performance of the electronic meeting. Earlier research has shown that price savings positively affects satisfaction. Therefore, the following hypothesis is proposed:

H5: *“Price savings is positively linked to the satisfaction of e-conference.”*

PU is “the extent to which a person believes that using a particular technology will enhance her/his job performance,” (Davis, 1989). This definition emphasizes the users’ efficiency expectations. Therefore, one of the core constructs of the TAM is perceived usefulness (Lee, 2010). On the other hand, many researchers indicate that perceived usefulness positively affects the continuance intention (Baker-Eveleth & Stone, 2015; Lee, 2010; Roca et al., 2006; Bhattacharjee, 2001). So, hypotheses are developed as follows:

H6: *“Perceived usefulness is positively linked to the satisfaction of e-conference.”*

H7: “Perceived usefulness is positively linked to the behavioural intention to use e-conference.”

PEOU is "the degree to which a person believes that using a particular system would be free of effort" (Davis, 1989). It implies the scholarly power important for not only acquiring but also utilizing the innovation (Arasanmi et al., 2017). A user, who feels it will be easy to use the e-conference, is positive about using it. So, hypothesizes are developed as follows:

H8: “Perceived ease of use is positively linked to the behavioural intention to use e-conference.”

H9: “Perceived ease of use is positively linked to the satisfaction use e-conference.”

H10: “Perceived ease of use is positively linked to the perceived usefulness of e-conference.”

MA is a person’s apprehension, anxiety, or bad emotion in real or expected interplay with the mobile devices such as computers (Heinssen et al., 1987; Venkatesh & Morris, 2000). In literature numerous studies revealed that mobile anxiety became determinants of BI and PEOU (Gefen & Straub, 2000; Pedersen & Nysveen, 2003; Gefen et al., 2003; Koksalmis, 2019). Therefore, the following hypotheses are established as:

H11: “Mobile anxiety will have a negative impact on behavioural intention to use e-conference.”

H12: “Mobile anxiety will have a negative impact on perceived ease of use e-conference.”

TS is “assistance provided to users of computer hardware and software products by knowledgeable people” (Son et al., 2012). It involves specialized instruction, supervision, tutoring, and consultation in using technology (Pijper et al., 2001). Several studies showed that technical support positively affects PEOU and PU (Son et al., 2012). So, hypothesizes are developed as follows:

H13: “Technical support will have a positive impact on perceived ease of use of e-conference.”

H14: “Technical support will have a positive impact on perceived usefulness of e-conference.

Our model, which contains 10 constructs, specifically, behavioural intention to use, convenience, mobile anxiety, perceived ease of use, perceived usefulness, price savings, satisfaction, social influence, time and technical support, is provided in Figure 1.

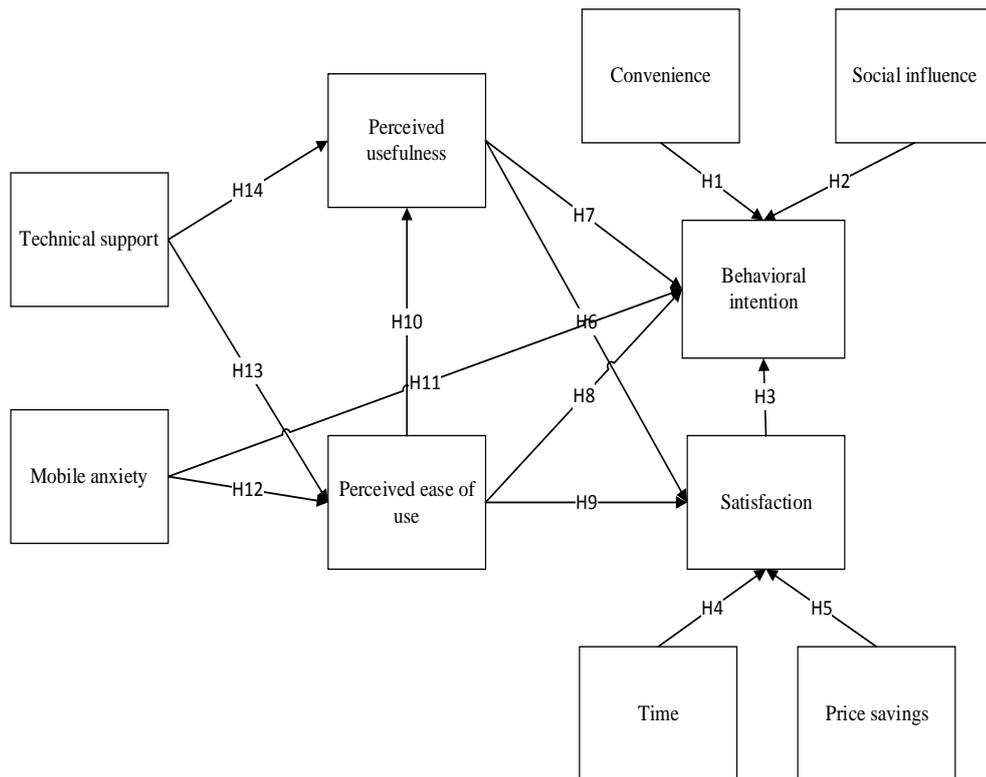


Figure 1. Research model.

4. RESEARCH METHODOLOGY

The current paper uses the survey method in order to gather the data and verify the conceptual model. By doing so, relationships between constructs and the individual responses are examined in a more suitable way (Newsted et al., 1998). The data was gathered through an online survey system which

has several benefits including wide-ranging sample space. Academicians in Turkey were our potential respondents.

The survey was raised as two main parts. The first includes questions associated with the demographic information; especially, age of the respondents, sex, education level, work, internet usage, e-conference experience. The second part includes the questions linked to the items measuring BI, CON, MA, PU, CS, PEOU, SAT, SI, TIME and TS.

203 questionnaires were collected and all of them were used for the analysis. Overall, 39.4% of respondents were women, and the respondents have an average age of 42.3 years. Survey also shows that only 8% have had an experience about e-conference. Table 1 provides the summary of demographic data of the respondents.

Table 1. Demographics.

Age (years)		
Max: 60	Min: 29	Average: 42.3

Gender (%)		
Female: 39.4	Male: 60.6	

E-conference Experience (%)		
Yes: 8	No: 92	

In this study, we tried to confirm our theoretical model by implementing the PLS-SEM, which is a multivariate investigation technique in multi-disciplines (Hair et al., 2012). The data is analyzed with the help of SmartPLS 3.2.7 software program.

The items related to constructs are gathered from the existing studies as we use a literature-based model. In this study, so as to quantify the factors, we use the five-point Likert scale. Table 2 shows the details about the items and constructs.

Table 2. Constructs and items.

Construct	Code	Sources	Items
Perceived ease of use	PEOU1 PEOU2 PEOU3 PEOU4	(Venkatesh & Davis, 1996) (Koufaris, 2002)	“Learning to operate e-conference would be easy for me.” “My interaction with e-conference would be clear and understandable.” “It would be easy for me to become skillful at using e-conference.” “I would find e-conference easy to use.”
Perceived usefulness	PU1 PU2 PU3 PU4	(Venkatesh & Davis, 1996) (Pavlou, 2003) (Park et al., 2004) (Fortes & Rita, 2016)	“Using e-conference would increase my productivity.” I think e-conference is valuable to me. “E-conference provides me access to a wide variety of products and services.” “Overall, I find e-conference useful.”
Satisfaction	SAT1 SAT2 SAT3 SAT4	(Pavlou, 2003; Bhattacharjee, 2001)	“I am satisfied in general with my past transactions with e-conference.” “My overall experience of using e-conference is very satisfied.” “My overall experience of using e-conference is very pleased.” “My overall experience of using e-conference is very delighted.”

Continuation of the Table 2.

Time	TIME1 TIME2 TIME3	(Devaraj et al., 2002)	“E-conference helps me to accomplish tasks more quickly.” “I did not have to spend too much time to complete the transaction.” “I did not have to spend too much effort to complete the transaction.”
Price savings	PR1 PR2 PR3	(Vasić et al., 2018)	“E-conference saves money in comparison to traditional commerce.” “E-conference is cheaper than traditional commerce.” “E-conference significantly reduces expenses per transaction in comparison to traditional commerce.”
Behavioural intention to use	BI1 BI2 BI3	(Lam et al., 2007)	“I intend to use e-conference more in the future.” “I want to use e-conference for my everyday living.” “It is likely that I will use e-conference for my future everyday living.”
Convenience	CON01 CON02 CON03 CON04	(Chau et al., 2019)	“Learning to use the e-conference system would be easy for me.” “My interaction with the e-conference system would be clear and understandable.” “I have access to the e-conference system anytime.” “I have access to the e-conference system everywhere.”

Continuation of the Table 2.

Mobile anxiety	MA01 MA02 MA03	(Chang et al., 2017)	<p>“E-conference systems do not scare me at all.”</p> <p>“E-conference systems make me feel uncomfortable.”</p> <p>“Working with E-conference systems makes me nervous.”</p>
Social influence	SI01 SI02 SI03 SI04 SI05 SI06	(Venkatesh et al., 2003; Moore & Benbasat, 1991)	<p>“People who influence my behaviour think that I should use the e-conference system.”</p> <p>“People who are important to me think that I should use the e-conference system.”</p> <p>“I use the e-conference system because of the proportion of coworkers who use the e-conference system”</p> <p>“People in my organization who use the e-conference system have more prestige than those who do not.”</p> <p>“People in my organization who use the e-conference system have a high profile.”</p> <p>“Having the e-conference system is a status symbol in my organization.”</p>

Continuation of the Table 2.

Technical support	TS01 TS02	Son et al. (2012)	“I have technical difficulties in using e-conference system, the technical support personnel will be easy to reach at any time.” “If I have technical difficulties in using an e-conference system, the technical support personnel will provide a satisfying response”
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5. RESULTS

Confirmatory factor analysis was implemented to examine the model. We assessed the reliability and validity of the constructs by investigating content, discriminant and convergent validities. The content validity is measured through associated studies and pilot testing the scale (Sheikh et al., 2017).

The convergent validity was estimated by assessing the values of the Cronbach's alpha, average variance extracted (AVE), factor loadings and composite reliability (CR) (Sheikh et al., 2017; Anderson & Gerbing, 1992). The Cronbach's alpha is implemented to evaluate the consistency of each construct. The higher is the better for Cronbach's alpha value. CR shows how well an assigned item measures a construct. AVE is a strict measure of convergent validity. “It evaluates the shared variance in a latent variable and provides evidence about convergence of items” (Basak & Calisir, 2015). AVE includes a variance which is obtained by partition of the total squared factor loadings and the number of items (Koksalmis & Damar, 2019; Bayraktar et al., 2017; Götz et al., 2010). The threshold values for Cronbach's alpha, factor loadings, CR and AVE are 0.7, 0.6, 0.5, and 0.7, respectively (Hair et al., 1998; Fornell & Larcker, 1981). The values of convergent validity and reliability are shown in Table 3; all items are above satisfactory level which implies good internal consistency, convergent validity and reasonable reliability of the measurement model.

Table 3. Reliability and convergent validity results.

Constructs	Items	Factor Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Behavioural intention to use	BI01	0.923	0.838	0.902	0.755
	BI02	0.842			
	BI03	0.393			
Convenience	CON01	0.933	0.853	0.901	0.696
	CON02	0.814			
	CON03	0.789			
	CON04	0.793			
Mobile anxiety	MA01	0.928	0.811	0.888	0.726
	MA02	0.803			
	MA03	0.820			
Perceived ease of use	PEOU01	0.929	0.887	0.914	0.642
	PEOU02	0.764			
	PEOU03	0.778			
	PEOU04	0.792			
Price savings	PS01	0.932	0.827	0.895	0.741
	PS02	0.825			
	PS03	0.821			
Perceived usefulness	PU01	0.926	0.892	0.916	0.611
	PU02	0.758			
	PU03	0.745			
	PU04	0.747			
Satisfaction	SAT01	0.932	0.838	0.892	0.676
	SAT02	0.806			
	SAT03	0.786			
	SAT04	0.757			
Social influence	SI01	0.923	0.883	0.911	0.633
	SI02	0.798			
	SI03	0.758			
	SI04	0.772			
	SI05	0.748			
	SI06	0.764			
Time	TIME01	0.933	0.836	0.901	0.752
	TIME02	0.820			
	TIME03	0.844			
Technical support	TS01	0.925	0.808	0.885	0.721
	TS02	0.803			

After calculating the composite measures, discriminant validity was evaluated. “Cross-loadings” and “Fornell & Larcker criterion” allow us to assess the discriminant validity of the measurement constructs. All corresponding correlations should be less than the square root of the AVE according to Fornell and Larcker (1981). Moreover, for the cross-loadings, “an indicator’s outer loading on the related variable should be higher than all its correlations on other variables” (Al-Emran et al., 2020). Table 4 and Table 5 demonstrate that the discriminant validity is satisfied.

Table 4. Reliability and convergent validity results.

	BI	CON	MA	PEOU	PS	PU	SAT	SI	TIME	TS
BI	0.869									
CON	0.649	0.835								
MA	-0.661	-0.565	0.853							
PEOU	0.365	0.359	-0.349	0.801						
PS	0.520	0.424	-0.365	0.267	0.861					
PU	0.663	0.513	-0.496	0.616	0.377	0.782				
SAT	0.639	0.496	-0.532	0.326	0.624	0.470	0.823			
SI	0.603	0.491	-0.471	0.265	0.377	0.449	0.482	0.796		
TIME	0.428	0.334	-0.383	0.233	0.450	0.314	0.640	0.350	0.868	
TS	0.255	0.238	-0.245	0.585	0.181	0.379	0.214	0.183	0.187	0.849

Table 5. Cross loadings.

	BI	CON	MA	PEOU	PS	PU	SAT	SI	TIME	TS
BI01	0.923	0.671	-0.660	0.404	0.510	0.672	0.675	0.622	0.433	0.296
BI02	0.843	0.497	-0.536	0.280	0.407	0.539	0.508	0.458	0.374	0.175
BI03	0.839	0.501	-0.509	0.245	0.430	0.495	0.453	0.471	0.295	0.173
CON01	0.690	0.934	-0.591	0.341	0.399	0.529	0.521	0.529	0.346	0.231
CON02	0.495	0.814	-0.424	0.284	0.336	0.421	0.394	0.361	0.282	0.222
CON03	0.461	0.789	-0.404	0.246	0.313	0.377	0.370	0.367	0.257	0.161
CON04	0.479	0.793	-0.435	0.323	0.363	0.357	0.343	0.348	0.211	0.174
MA01	-0.694	-0.584	0.929	-0.352	-0.411	-0.518	-0.552	-0.487	-0.390	-0.250

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Continuation of the Table 5.

MA02	-0.468	-0.410	0.803	-0.251	-0.241	-0.357	-0.390	-0.344	-0.250	-0.200
MA03	-0.490	-0.422	0.820	-0.275	-0.251	-0.365	-0.390	-0.350	-0.322	-0.167
PEU01	0.416	0.388	-0.369	0.930	0.271	0.651	0.330	0.313	0.224	0.558
PEU02	0.245	0.243	-0.272	0.765	0.211	0.452	0.238	0.170	0.164	0.462
PEU03	0.271	0.281	-0.297	0.779	0.204	0.460	0.265	0.234	0.198	0.482
PEU04	0.295	0.295	-0.260	0.792	0.190	0.507	0.252	0.209	0.231	0.446
PS01	0.553	0.418	-0.420	0.276	0.932	0.406	0.677	0.420	0.479	0.184
PS02	0.396	0.364	-0.245	0.177	0.825	0.272	0.455	0.215	0.307	0.125
PS03	0.355	0.297	-0.234	0.223	0.822	0.266	0.422	0.305	0.345	0.152
PU01	0.672	0.530	-0.521	0.622	0.398	0.926	0.499	0.476	0.340	0.398
PU02	0.491	0.347	-0.381	0.427	0.278	0.759	0.350	0.330	0.215	0.247
PU03	0.443	0.357	-0.343	0.426	0.257	0.746	0.314	0.290	0.186	0.229
PU04	0.455	0.353	-0.306	0.454	0.270	0.748	0.325	0.319	0.273	0.283
SAT01	0.668	0.526	-0.549	0.307	0.626	0.483	0.930	0.512	0.660	0.188
SAT02	0.480	0.349	-0.412	0.302	0.491	0.396	0.806	0.334	0.513	0.227
SAT03	0.496	0.393	-0.424	0.249	0.426	0.371	0.787	0.408	0.468	0.170
SAT04	0.420	0.335	-0.333	0.203	0.487	0.267	0.757	0.300	0.427	0.115
SI01	0.652	0.488	-0.486	0.283	0.392	0.478	0.511	0.923	0.370	0.193
SI02	0.468	0.367	-0.360	0.193	0.320	0.331	0.378	0.798	0.327	0.179
SI03	0.415	0.387	-0.355	0.179	0.262	0.327	0.321	0.759	0.224	0.068
SI04	0.437	0.340	-0.322	0.178	0.239	0.331	0.292	0.771	0.188	0.144
SI05	0.430	0.348	-0.348	0.180	0.293	0.313	0.365	0.748	0.225	0.138
SI06	0.420	0.396	-0.346	0.233	0.268	0.326	0.395	0.764	0.306	0.130
TIME01	0.468	0.375	-0.419	0.245	0.486	0.336	0.676	0.376	0.933	0.170
TIME02	0.319	0.236	-0.269	0.128	0.351	0.213	0.458	0.247	0.821	0.115
TIME03	0.298	0.230	-0.283	0.218	0.308	0.248	0.495	0.265	0.845	0.199
TS01	0.267	0.278	-0.262	0.634	0.197	0.397	0.238	0.180	0.190	0.926
TS02	0.176	0.156	-0.194	0.404	0.119	0.285	0.187	0.178	0.134	0.803

In this study, PLS-SEM through SmartPLS 3.2.7 is utilized to examine the hypotheses. Assessment criteria (Non-parametric) depends on bootstrapping is achieved with 5000 iterations (Henseler et al., 2009; Chin, 1998). The analyses of hypotheses are provided in Table 6.

According to the analysis below, convenience, social influence, satisfaction and PU affect BI positively; on the other hand, mobile anxiety affects BI and PEOU negatively; time, price savings, PU are significant determinants of satisfaction; PEOU affects PU positively; technical support is a significant antecedent of PEOU but not PU. Our results also show that the effect of PEOU on BI and satisfaction is insignificant.

Table 6. Test results.

Hypothesis	Relationship	β Coefficient	t-value	Supported (Yes/No)
H1	CON → BI	0.196	2.818	Yes
H2	SI → BI	0.175	2.729	Yes
H3	SAT → BI	0.215	3.223	Yes
H4	TIME → SAT	0.413	6.221	Yes
H5	PS → SAT	0.360	5.348	Yes
H6	PU → SAT	0.198	2.119	Yes
H7	PU → BI	0.339	3.807	Yes
H8	PEOU → BI	0.108	1.410	No
H9	PEOU → SAT	0.012	0.124	No
H10	PEOU → PU	0.599	7.274	Yes
H11	MA → BI	-0.224	3.201	Yes
H12	MA → PEOU	-0.219	2.661	Yes
H13	TS → PEOU	0.532	9.665	Yes
H14	TS → PU	0.029	0.301	No

Figure 2 displays R-Square values, standardized path coefficients as well as descriptive power for dependent variables of the model. R-Square shows the proportion of total variance of the dependent variable. According to this study, the proposed research model explains the 70.2% (R-Square = 0.702) of total variance of BI, 58.5% (R-Square = 0.585) of total variance of satisfaction, 38.7% (R-Square = 0.387) of total variance of PEOU and 37.9% (R-Square = 0.379) of total variance of PU.

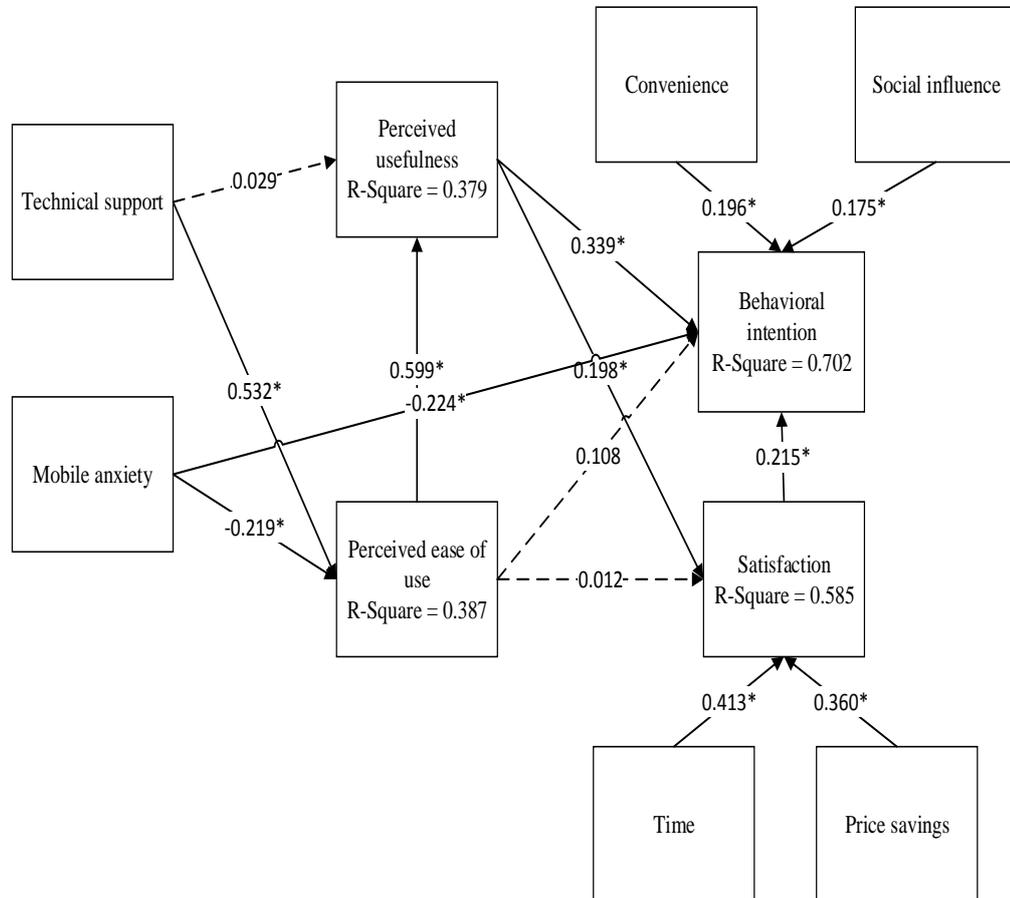


Figure 2. PLS algorithm results.

6. CONCLUSION

This research study aims to explore the acceptance of e-conference technologies by implementing the TAM as the theoretical framework, and participate main determinants, such as SAT, TIME, PS, TS, MA, SI and CON. 203 surveys were gathered from the academicians in Turkey, and all of them were taken into account in the analysis. In an attempt to examine the developed research model, we applied structural equation modeling

which uses PLSM mainly because it is practiced in multiple disciplines in the literature. SmartPLS software is used to evaluate the collected survey data. This research study is the first inclusive research to the authors' best knowledge, to integrate the constructs mentioned in the previous sections to identify the antecedents of e-conference system acceptance in Turkey.

The proposed research model clarifies the 70% of total variance of BI of e-conference systems. In this model, fourteen hypotheses are developed and eleven of them are supported. The findings are also similar to the existing studies by presenting that PU is the significant determinant of BI e-conference systems. In addition to the PU, factors such as convenience, satisfaction and mobile anxiety are playing an important role in users' BI e-conference systems. The results show that social influence affects BI e-conference systems significantly as well. The thoughts of generations and coworkers are crucial among the e-conference systems users. Among them, PU has the strongest impact on BI e-conference systems. Similarly, perceived usefulness, time and price savings are significant determinants of satisfaction which indicates that users tend to be satisfied with the e-conference systems if they believe that they save time and money, and it is useful. According to the results of the analysis, providing technical support impacts PEOU positively. Furthermore, e-conference systems are not easy for users who have mobile anxiety. The current research also shows that while PEOU affects PU; however, it does not affect BI. Likewise, PEOU does not affect satisfaction significantly. In addition, the effect of technical support on PU is not significant.

Our paper study can be used as a guide in theory and practice for e-conference systems, and it is going to be an important guide to understand behavior of academicians toward e-conference systems and what affects positively or negatively this behavior. The findings of this paper will be a potential source for future e-conference organizations. The results of this paper would be useful for e-conference attendees, academicians, students and organization companies.

A network analysis supported that most of the outcomes are consistent with literature in the information system. It also shows that PU is important while determining behavioural intention to use e-conference system. External

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factors such as CON, SI, SAT and MA are also important in predicting peoples' behavioural intention to use e-conference systems.

Even though there are several contributions, some limitations should be considered for further studies. First, our research is conducted in only Turkey so the analysis might be different if the proposed model is tested in another country. Second, although a significant amount of the dependent variables is clarified, about 70% of BI is described through our model; hence, additional constructs, which might be related to e-conference, can be taken into consideration in further studies. Last, this study did not incorporate demographic features as constructs in the model. Hence, factors such as gender, education level and age can be used in the proposed model as a future work.

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