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An analysis on the unified theory of acceptance and use of technology theory (UTAUT): Acceptance of electronic document management system (EDMS)

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A B S T R A C T

Public Institutions need information systems that facilitate management of generated documents during business processes on a digital platform. Development of information and communication technologies facilitated the transfer of documents to digital platforms which caused the emergence of Electronic Document Management System (EDMS). Institutions are utilizing EDMS in order to keep records securely and improve business processes. EDMS have many benefits such as improvement of efficiency and productivity, reduction of errors, increase in quality of service and reduction of costs. On the other hand, while EDMS offers many benefits to its users, it also has made it imperative to adopt the new technological system. For this reason, it becomes essential to understand the factors that affect the intention of use of EDMS. This study researches the factors that affect the adoption and use of EDMS in Bartın University by using the unified theory of acceptance and use of technology (UTAUT). In this research, data was analyzed by using R software program and Structural Equation Modelling (SEM). Based on the findings, 61% of the intention of use of EDMS has been explained by performance expectancy and social influence factors with in the proposed model. Empirical findings suggest that the factors of performance expectancy and social influence has a positive effect on the intention of use but of effort expectancy factor does not have a positive effect.

1. Introduction

Today, most countries are aware of the importance of the electronic government (e-government) for a modern public administration. The use of e-government in Turkey is a great platform that provides a single point of access to many public services and has been in use since 2008. The electronic government has many definitions. In general terms, it refers to the provision of services provided by the government to public institutions, businesses and citizens in an electronic environment by using information and communication technologies effectively (Nam, 2014). E-government plays an important role in providing public services to citizens through information and communication technologies (Berlilana, Hariguna, & Nurfaizah, 2017).

Documents in public institutions had begun to be transferred to electronic media in Turkey in 2013. Electronic document management system (EDMS) enables digitalization of documents using computer systems and technologies to meet corporate needs (Sprague, 1995). In this way, many institutions using a comprehensive EDMS easily manage all information produced internally and externally. Therefore, in terms of efficiency and productivity in service provision, this system still works at a higher level compared to the institutions that serve with traditional methods. Successful implementation of EDMS is a necessity for every institution since these systems speed up the business processes and provide convenience to the users. The implementation of a new system or technology in place of an existing one poses many challenges. There are studies reporting that the new system or technology is not accepted and not adapted (Davis, 1989; Norzaidi, Salwani, Chong, & Rafidah, 2008; Song, Sawang, Drennan, & Andrews, 2015).

The electronic document management system that is being used in Bartın University is a software that can be integrated with all modules of the University Information Management System (UIMS) which is supported by Izmir Kâtip Çelebi University, Republic of Turkey Ministry of Development. UIMS is an e-university project consisting of integrated modules to cover all administrative and academic processes of

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universities. This system is designed to be applicable in private and public universities due to the nature of the project. It consists of secure and reliable document management and archive system suitable for the needs and structure of the institution.

Investments in the development of e-government and the use of government-provided information systems generally do not meet expectancies. Since the adoption and use of technology depends on many factors, the implementation of information systems in the public sector is a major challenge (Afonso, Roldán Salgueiro, Sánchez Franco, & González, 2012). The rarity of use of information systems worldwide is mainly due to user-oriented problems (Alshehri, Drew, Alhussain, & Alghamdi, 2012). When the intentions of the employees working in institutions to use EDMS projects are examined, it is seen that the success rate is low (Gunnlaugsdottir, 2008). Therefore, factors that affect the intention to use EDMS should be identified to minimize user-oriented problems. In this study, the University of Bartın in Turkey, an electronic document management system (EDMS) aimed to understand the basic factors that influence the adoption and use. Understanding these factors in higher education in Turkey to design and adoption of measures to increase the use of EDMS and intervention is critical.

Users are expected to have the intention to use this system for the successful implementation of EDMS. Many models and theories have been introduced that examine the acceptance and use of information systems from past to present. UTAUT model that is used in the study is a model that explains the use of technology by 70%. It is also used to estimate the probability of success of a new technology and to evaluate the adoption of various technologies (Venkatesh, Morris, Davis, & Davis, 2003).

The UTAUT model has been applied to e-learning (Isaias, Reis, Coutinho & Lencastre, 2017; Raman, Don, Khalid, & Rizuan, 2014; Sezer & Yilmaz, 2019), e-banking (Afshan & Sharif, 2016; Baptista & Oliveira, 2015; Martins, Oliveira, & Popovič, 2014), e-commerce (Asastani, Harisno, Kusumawardhana, & Warnars, 2018; Kabanda & Brown, 2017; Sim et al., 2018; Verkijika, 2018) and the main factors under the intent of use of the users have been stated. However, a limited number of studies have been conducted examining the factors that affect the intention to use EDMS. Afonso et al. (2012), examined the acceptance and use of EDMS by UTAUT of users working in Portuguese municipalities in order to test the moderate effect of gender. In the same vein Donmez-Turan (2019), examined public personnel's adoption of EDMS in the context of UTAUT. Also in a study by Mosweu, Bwalya, and Mutshewa (2016), it was aimed investigate the factors affecting the adoption and use of a Document Workflow Management System (DWMS) at the Ministry of Trade and Industry in Botswana using UTAUT. In the study Kim, Lee, Hwang, and Yoo (2016) examined the factors affecting the users' intention to use the mobile electronic health records (EHR) system. In the same vein by Abdekhoda, Dehnad, and Zarei (2019), have examined adoption of electronic medical record (EMR).

For this reason, the study aims to identify the factors affecting the intention to use EDMS at Bartın University and thus broaden the flow of the research on this subject. The study proposes a conceptual adoption framework that can be used to guide research and practice in similar fields in the literature.

2. The unified technology acceptance and use of technology theory and research hypotheses

The necessity of transferring Information Technology (IT) and Information System (IS) applications to institutions has become inevitable in obtaining organizational performance. However, investments in such technology-intensive systems are inherently expensive and risky. Moreover, it is not known whether it will contribute to improving organizational performance without using IT and IS applications. It is a very common problem for end users (managers, employees, professionals) to resist using such technologies. Users may not be very willing to use technology to perform their jobs. It is important to explain the acceptance

and use of new technologies to better understand user-oriented problems and find solutions.

Venkatesh et al. (2003), it provides a basic conceptual framework by combining models that explain the individual acceptance of IT, which forms the basis of this research. As a result of researches that emerged from different disciplines such as information systems, sociology and psychology many theories have been put forward and applied (Davis, Bagozzi, & Warshaw, 1989). In the research, eight main theoretical models: Personal Computer Usage Model; Innovation Diffusion Theory; Technology Acceptance Model; Theory of Reasoned Action; Combined TAM-PBT; Theory of Planned Behavior; Social Cognitive Theory and Motivational Model were determined (Venkatesh et al., 2003).

Although there are many researches with the emerging models and theories, there are very few studies that empirically compare theory and models (Wong, Russo, & Mcdowall, 2013). Venkatesh et al. (2003) proposed the UTAUT model shown in Fig. 1, which aims to combine usage models by analyzing eight competing models trying to explain the users' technology acceptance and usage intention.

UTAUT comprises of four main factors. These are; performance expectancy, social influence, effort expectancy and facilitating conditions are factors. In addition, UTAUT includes four intermediate individual variation variables, gender, age, experience and voluntariness of use, which predict the relationship between primary factors and behavioral intention and use behavior (Venkatesh et al., 2003). According to UTAUT, there are determining factors that directly affect intention or use in models combined within the UTAUT framework. These determining factors are called performance expectancy (PE), social influence (SI), effort expectancy (EE) and facilitating conditions (FC). According to the literature review, the FC are empirically identified as the direct determinant of adopting the behavior. Venkatesh et al. (2003) stated that behavioral intention has no effect on behavioral intention. These factors play a prominent role as direct determinants of user acceptance and usage behavior.

Since the in the study by Venkatesh et al. (2003), many researchers are increasingly testing UTAUT to explain technology compatibility (Afonso et al., 2012; Kabanda & Brown, 2017; Sezer & Yilmaz, 2019; Wang, Wu, & Wang, 2009). UTAUT is used to evaluate the use of information systems and information technology in public institutions. In the study by Mosweu et al. (2016), using the UTAUT model has examined the factors affecting the intent of the Document Workflow Management System (DWMS) of Trade and Industry in Botswana. The study has found that the factors performance expectancy, effort expectancy, social influence, and facilitating conditions explain a significant portion of the factors influencing DWMS adoption. They stated that performance expectancy, explaining 16% of the variation in behavioral intention to adopt DWMS, was the most effective factor and effort expectancy, which explained only 10%, was the least effective factor. In the same vein, Afonso et al. (2012), stated that performance expectancy is the most effective factor affecting behavioral intention and effort expectancy has no effect. They also found that what their peers or social connections thought about employees' use of EDMS was important. In a study by Kim et al. (2016), aimed to verify the factors affecting the users' intention to use the mobile electronic health records (EHR) system with a model that combines UTAUT and the TAM model. The study findings showed that the intention of end users to use the mobile EHR system was particularly influenced by performance expectancy and attitude. As a result, they stated that functions related to workflow that have the ability to increase the performance of individuals in the implementation of mobile EHR systems should be considered first. In the same vein Donmez-Turan (2019), stated that if users adopt the four main factors of UTAUT, they can develop a positive attitude towards using the new system. Therefore, she has stated that individuals can show a positive attitude towards the system that satisfies their performance expectations and effort expectations, and thus the facilitating conditions provided by the system will create an increasing social impact among individuals. Therefore, in this study, we propose the model shown in Fig. 2.
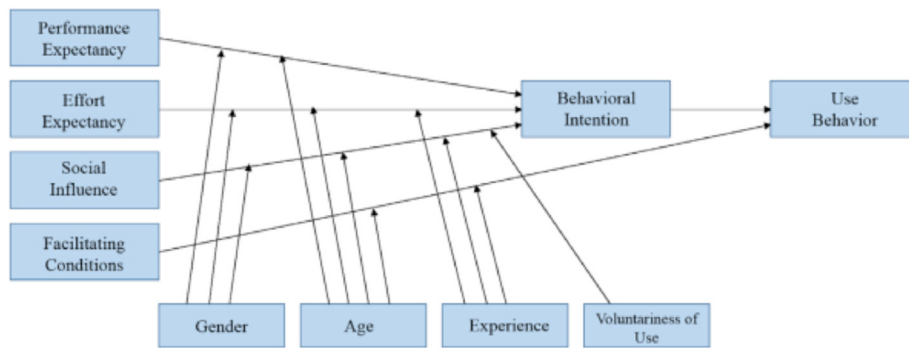
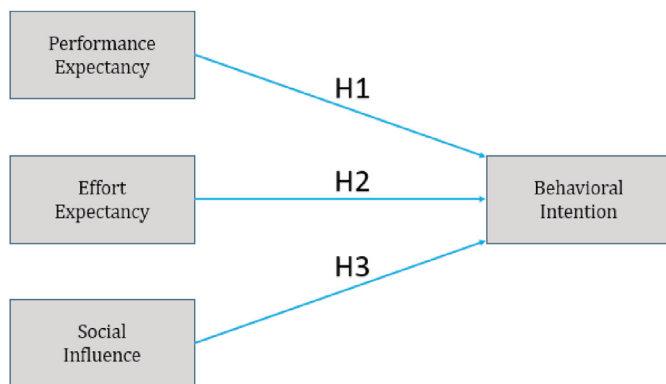**Fig. 1.** The unified technology acceptance and use of technology theory (UTAUT) (Venkatesh et al., 2003).

Fig. 2. Proposed research **model** and hypotheses.

2.1. Performance expectancy (PE)

It refers to the degree of believing that the individual using the system will perform higher. The influence of performance expectancy has been confirmed in both voluntary and compulsory settings and situations with less experience (Lu, Zhou, & Wang, 2009). However, from a theoretical point of view, performance expectancy may differ according to gender and age (Venkatesh et al., 2003). Within the scope of this research, performance expectancy means that users prefer EDMS due to its usefulness, as it makes business faster, increases productivity and is in general useful in performing its duties. In many studies using the UTAUT model, the performance expectancy factor has been shown to have a significant impact on intention to use (Afonso et al., 2012; Al Awadhi & Morris, 2008; Al-Ghantani, Hubona, & Wang, 2007; Kabra, Ramesh, Akhtar, & Dash, 2017; Kim et al., 2016; Salloum, Al-Emran, Shaalan & Tarhini, 2018; Sharifian, Askarian, Nematolahi, & Farhadi, 2014; Wang & Shih, 2009). Based on this, the following hypothesis has been put forward:

H1. Performance expectancy has a positive effect on behavioral intention.

2.2. Effort expectancy (EE)

It expresses the degree of convenience regarding the use of the system. The effort expectancy factor has an influence on behavioral intention in both voluntary and compulsory use environments. However, it has been observed that the effort expectancy factor becomes insignificant in long-term and continuous use which validates previous research. Age, gender and experience variables may differ on the effort expectancy (Venkatesh et al., 2003). Carter and Belanger (2004) the effort expectancy provides the measurement of a system's interface design, ease of

use, flexibility, and ease of learning. Therefore, it is expected that the usage intention of EDMS will be easy to use without effort. In many studies using the UTAUT model, the effort expectancy factor has been shown to have a significant impact on intention to use (Chen & Hwang, 2019; Dulle & Minishi-Majanja, 2011; Kabra et al., 2017; Oktal, 2013; Tosuntaş, Karadağ, & Orhan, 2015). Based on this, the following hypothesis has been put forward:

H2. Effort expectancy has a positive effect on behavioral intention.

2.3. Social influence (SI)

It refers to the degree to which the person who is deemed to be important to the individual believes that he/she should use the new system. In cases where the social influence factor has no effect in the case of voluntary use. However, this factor becomes effective when the use of technology is mandatory. The variables of gender, age, voluntariness of use and experience may differ on social influence (Venkatesh et al., 2003). The social influence factor reflects the influence of influencing factors on the behavior of users, such as opinions of friends or hierarchical superiors (Afonso et al., 2012). Based on the UTAUT model, users' opinions are thought to affect the adoption of EDMS. In many studies using the UTAUT model, the social influence factor has been shown to have a significant impact on intention to use. (Afonso et al., 2012; Hoque & Sorwar, 2017; Tosuntaş et al., 2015; Yıldız Durak, 2018; Zhou, Lu, & Wang, 2010). Based on this, the following hypothesis has been put forward:

H3. Social influence has a positive effect on behavioral intention.

3. Method

3.1. Research design

In this study, the acceptance and use of EDMS system of Bartın University academic and administrative staff is tried to be explained on the basis of UTAUT determining factors. It is assumed that performance expectancy, social influence and effort expectancy, which are the determining factors of the UTAUT model, have a positive effect on behavioral intention.

3.2. Participants

The participants of the research consisted of 270 academic and administrative staff using EDMS at Bartın University. Participants were asked personal questions such as gender and staffing. As seen in Table 1, 38% (103) of the participants are women; 62% (167) are men. In addition, 63% of the participants are academic and 37% are administrative staff.

Table 1
Demographics of participants.

Variables		1	2	Total
Gender		Female	Male	
	n	103	167	270
	%	38	62	
Staff Ranks		Academic	Administrative	
	n	170	100	270
	%	63	37	

3.3. Acceptance and use of EDMS scale

In the research, the UTAUT model developed by Venkatesh et al. (2003) was used to determine the factors affecting the adoption and use of EDMS by academic and administrative staff. Looking at the literature; different scale items and sizes can be effective for the UTAUT model used in different societies and in different study areas. The scale items in this study were prepared by making them applicable for Bartın University EDMS. The survey has included 4 factors: performance expectancy, social influence, effort expectancy and behavioral intention. For a total of 15 items, a 5-point likert scale was used, which includes the words "not possible" (1) and "extremely possible" (5). Necessary arrangements were made to discuss the items with the EDMS experts on the scale to ensure a clear understanding of the items.

3.4. Data analysis

In the analysis of the data obtained from 270 samples, structural equation model (SEM) was tested for the suitability of the proposed model. While SEM analyzes the theoretical model proposed by the researcher, it is a comprehensive statistical technique used to reveal the relationships between observed variables and latent variables. CFI, NFI, AGFI, NNFI, GFI and RMSEA values were measured to evaluate the compatibility of the model with the data obtained. In addition, multiple correlation analysis was performed to measure the relationships between factors.

4. Findings

4.1. Measurement model analysis

In the research, various measurements were made such as factor loads, mean variance (AVE) and compound reliability (CR). These measurements help measure convergent validity and reliability. Convergent validity is an indicator of the extent to which the scale in question overlaps with other criteria that measures the same structure. Factor loads were used to indicate the weight and correlation value of each factor. Cronbach α and compound reliability (CR) values were calculated to measure structure reliability. Hair et al. (2009) stated that AVE value should be higher than 0,5 and CR value should be higher than AVE value (CR > AVE; AVE> 0,5). However, AVE values below 0.5 are acceptable if other reliability criteria for convergent validity are met. (Berthon, Ewing, & Hah, 2005; Fornell & Larcker, 1981). Croanbach α, AVE and CR values of each structure are given in Table 2. Table 2 shows that, Cronbach α is (0.77–0.87) and CR is (0.74–0.87). These values are high which is above the critical value of 0.70. AVE, on the other hand, is ranged between 0.42 and 0.67, and all factors except the social influence factor received a value above 0.5 critical. Therefore, although the AVE value of the social influence factor is below 0.5, it can be accepted since it provides the condition that the CR value is high and the AVE value is less than the CR value.

4.2. Relations between UTAUT factors

Correlation coefficients examine the relationship between factors. If the correlation coefficient (r) values are 0.10–0.29, it is weak; 0.30–0.49

Table 2
Acceptable convergence validity results (Factor loads, Cronbach Alpha, AVE and CR values).

Performance Expectancy					
Statements	Factor Loads	R^2	Cronbach Alpha α	(AVE)	(CR)
PE1: EDMS is beneficial for my work.	0.70	0,487	0,87	0,600	0,86
PE2: EDMS makes things faster.	0.78	0,605			
PE3: EDMS increases productivity.	0.79	0,618			
PE4: EDMS with all its features increases work performance.	0.83	0,690			

Effort Expectancy Statements	Factor Loads	R^2	Cronbach Alpha α	(AVE)	(CR)
EE1: EDMS user interface is clear and understandable.	0.70	0,495	0,87	0,623	0,87
EE2: I can easily teach someone how to use EDMS.	0.81	0,657			
EE3: I find EDMS easy to use for the things I want to do.	0.85	0,725			
EE4: It is easy to learn how to use EDMS.	0.78	0,613			

Social Influence Statements	Factor Loads	R^2	Cronbach Alpha α	(AVE)	(CR)
SI1: People who influence my behavior think that I should use the system.	0.57	0,319	0,77	0,422	0,74
SI2: Significant people think I should use the system.	0.65	0,427			
SI3: University senior management assists in the use of EDMS.	0.64	0,415			
SI4: In general, the university supports the use of EDMS.	0.73	0,525			

Behavioral Intention Statements	Factor Loads	R^2	Cronbach Alpha α	(AVE)	(CR)
BI1: I have the intention to use EDMS frequently.	0.79	0,629	0,86	0,672	0,86
BI2: I believe that I will continue to use EDMS in the future.	0.90	0,802			
BI3: I definitely continue to use EDMS.	0.77	0,587			

is medium; It is claimed that there is a strong correlation between 0.50 and 1.00 (Pallant, 2001). In the study, it is seen that the high correlation is between PE and BI (Table 3).

Table 3
Correlations between PE, EE, SI ve BI.

Factors	PE	EE	SI	BI
PE	1			
EE	0.533[a]	1		
SI	0.599[a]	0.584[a]	1	
BI	0.637[a]	0.520[a]	0.569[a]	1

PE: Performance Expectancy, EE: Effort Expectancy, SI: Social Influence, BI: Behavioral Intention.
[a] Correlation is significant at the 0.01 level (2-tailed).

4.3. Confirmatory factor analysis

CFA is often used in scale development and validity analysis and aims to determine if a predetermined structure is working on the desired sample. Therefore, while many statistical methods try to discover relationships on a data set; SEM confirms the compatibility of previously established relationships with data. As such, it can be said that SEM is more successful than other methods for hypothesis testing (Karagöz, 2018).

Confirmatory factor analysis was used to determine the structural validity of the scale developed for the research. According to the analysis results are as; x^2/df 1.21; GFI 0.98; AGFI 0.92; RMSEA 0.05; NFI 0.94; NNFI 0.97 and CFI 0.94. When the findings are examined in Table 4, it is seen that all values appear as good fit values. This shows that the data collected are compatible with the proposed model.

4.4. The structural relationships between PE, EE, SI and BI

In the proposed model, SEM is used to reveal the relationship between the factors. When Table 5 is analyzed, statistically significant effect was found on intention of use performance expectancy and social influence factors on EDMS ($p < 0.05$). On the other hand, effort expectancy factor did not have a statistically significant effect on the use intention of EDMS ($p > 0.05$). According to these findings, H1 and H3 hypotheses have accepted ($p < 0.05$); however, the H2 hypothesis has rejected ($p > 0.05$).

Factor loads between factors and R^2 values are shown on Fig. 3. Accordingly, it was determined that performance expectancy, social influence and effort expectancy factors explained the behavioral intention by 61%.

5. Discussion

When the findings are examined, it is seen that the most important determinant of behavioral intention is performance expectancy. This situation is supported by many studies (Afonso et al., 2012; Kim et al., 2016; Mosweu et al., 2016; Sharifian et al., 2014; Venkatesh et al., 2003). As in many studies using performance expectancy factor UTAUT model, a significant effect on usage intent has been determined (Afonso et al., 2012; Kristiawan & Harisno, 2016; Nadlifatin, 2019; Sapio et al., 2010; Tosuntaş et al., 2015; Wang & Shih, 2009). Users have believed that if they use EDMS, they can be more efficient and that EDMS has an important place to complete their work quickly. Considering that the flow of documents in universities is intense; users are expected to need EDMS in their work. It is seen that the highest factor affecting intention in the model is performance expectations.

It has been also determined that the social influence factor has a significant effect on the intention to use EDMS. This finding of the study is also supported by some studies (Kijsanayotin, Pannarunothai, & Speedie, 2009; Awwad & Al-Majali, 2015; Tosuntaş et al., 2015; Šumak & Šorgo, 2016; Salloum et al., 2018). The academic and administrative

Table 4
CFA fit indices.

Fit Index	Criteria for acceptable fit	Model value (standard)	Resource
x^2/df	$0 \leq x^2/df \leq 3$	1.21	Kline (2005)
RMSEA	$0 \leq RMSEA \leq 0.08$	0.05	Hooper, Coughlan, and Mullen (2008)
AGFI	$0.90 \leq AGFI \leq 1.00$	0.92	Tabachnick and Fidell (2007)
NFI	$0.90 \leq NFI \leq 1.00$	0.94	Thompson (2004)
CFI	$0.90 \leq CFI \leq 1.00$	0.94	Tabachnick and Fidell (2007)
NNFI	$0.90 \leq NNFI \leq 1.00$	0.97	Tabachnick and Fidell (2007)
GFI	$0.90 \leq GFI \leq 1.00$	0.98	Tabachnick and Fidell (2007)

Table 5
Results of structural model-research hypotheses.

Hypotheses	Relationship	Path Coefficient	t-value	p-value	Supported?
H1	PE → BI	0.47	4.374	.000	Yes
H2	EE → BI	0.9	.970	.332	No
H3	SI → BI	0.29	2.121	.034	Yes
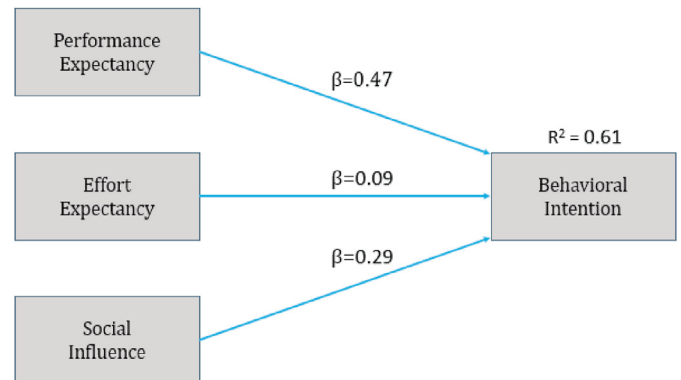
Fig. 3. Path **analysis** results.

staff's tendency to use EDMS will increase further with the effective use of EDMS by the people in the university's senior management. It has been necessary to encourage senior management to use this system to ensure that employees adopt EDMS more. The personnel and managers who will use the system should have the knowledge of the system's benefits, convenience and savings. In this regard, providing the necessary support to managers, informing system users from all processes with a communication network that will cover the whole organization, and providing necessary training will contribute to the acceptance and adoption of EDMS.

Contrary to previous studies (Tosuntaş et al., 2015; Kabra et al., 2017; Chen & Hwang, 2019), it has been determined that effort expectation factor has no significant effect on intention to use. In a limited number of studies, there are results supporting this finding (Zhou, 2012; Afonso et al., 2012; Isaias et al., 2017; Verkijika, 2018). This result may be due to the specifications and terms of use of EDMS. It can be said that the reason behind the reluctance of users to use EDMS is due to the ease/difficulty of use of EDMS. This can cause users to have difficulty using system. A simple and easy-to-use interface can be provided to the user to overcome difficulties. The number of transactions required to obtain the necessary information can be reduced. In addition, one of the main success factors of a system is the ease of use of that system. Therefore, acceptance of EDMS by employees depends on the ease and effortless use of this system.

6. Conclusions

This study was analyzed within the framework of EDMS usage intent UTAUT model. EDMS is a sub-module of the University Information Management System (UIMS) project developed by İzmir Kâtip Çelebi University to ensure that all processes of universities are carried out through a single application. After the 2015 UIMS symposium, Ardahan University, Bartın University, Çanakkale Onsekiz Mart University, Gaziantep Islamic Science and Technology University, Ostim Technical University and Yalova University have started to use the UIMS system. Thus, the EDMS that embodies a safe and reliable document management with the archive system is suitable for institutions ' needs which gains popularity among the public institutions and rapidly grows with each passing day. By integrating these systems into institutions, users need to adapt to a new technological order. It is important to determine the factors affecting the intention of use this widespread system.

If the responses to this system are understood correctly, managers working in this field will be able to take complementary actions to improve the system based on these responses. Thus, it is likely that the productivity of those using EDMS-like systems will be significantly increased. Particularly when the literature is analyzed, there are a few studies where the UTAUT model and the EDMS subject are quantitatively addressed. In this regard, it is thought that the study will be a pioneer and will fill an important gap.

The results of the study have been revealed that EDMS users performed high in their work. Therefore, users have stated that they think EDMS will facilitate their tasks and require less effort in daily routine work. In order to increase the impact of effort expectancy on the use of EDMS, it has been recommended that administrators create an easy-to-use, less effort-intensive interface for using EDMS. In addition, it is possible to develop the EDMS usage skills of the users and to learn the usage of EDMS without any effort. The social influence factor is thought to increase with the effective use of EDMS by senior management. It is important to what extent the employees are accepted in the institutions where EDMS is used. In addition, employees need the support of managers to accept the system. First of all, it is necessary for managers to not approach bias with EDMS and to act by adopting the system by providing the necessary conditions for using the system. Support from top management in the use of EDMS will allow system users to adapt and accept EDMS more quickly. With the support received from the management, the process of adaptation of the users to the system is accelerated. Thus, internal communication, document creation, control and follow-up will be provided more systematically. In conclusion, performance expectancy, social influence and effort expectancy factors are considered as important factors in the use of EDMS in this study. With the improvement of these factors, users are expected to use the system more effectively and efficiently in the future.

7. Limitation and recommendations for future work include

- The research has examined users' intentions to use, not their actual EDMS use.
- There are six universities that use the UBYS system in Turkey. Since it is not possible to reach all of them in this study, research has been made only for the use of EDMS at Bartın University. Subsequent researches can examine the differences between the use of EDMS in universities and obtain more comprehensive results.
- Since this study offers a model to be applied, it is thought that it will be beneficial to have an understanding of the adoption and use of EDMS.
- The use of EDMS can be followed with the results obtained and compared with the results of this study.
- Institutions can use this model by making appropriate changes to evaluate the information systems they use.
- In the study, it was seen that the effort expectation factor did not have a significant effect on the intention to use EDMS. This subject can be examined in more detail and the reasons can be determined with concrete data.
- Researchers who will work on this subject in the future can compare the research between EBYS and similar systems used in public institutions.

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Declaration of competing interest

The authors declare that they have no conflict interest.

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