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INVISTEGATING THE INFULANCING FACTORS ON STUDENT'S BEHAVIORAL INTENTION TO ADOPT E-MANAGEMENT IN LIBYAN UNIVERSITIES

Ahmed Abusef [1]
Arun Kumar Tarofder [2]

Abstract:*This paper seeks to determine the impact of factors that influencing student's behavioral intention to adopt e-management in Libyan universities. The study which is the first step in providing a base for the empirical study of the Mediating effect of attitude of Libyan students toward intention of adopting e-management at universities. Thus, the study focused on those critical factors that can easily and positively affect the intention of e- management adoption based on Theory of Reasoned action (TRA), Theory of Planned Behavior and Technology Acceptance Model (TAM). Having proved by previous management technology researchers how there are many factors significantly influence the intention to adopt and use any new technology in management. This study will help Libyan's universities to improve their e-management services that provide to their students, especially in light of the trend of modern institutions towards providing services to their customers quickly and conveniently, taking advantage of technology and the Internet.*

Keywords*: E- Management, Influencing Factors, Intention.*

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Introduction

Emergence of the Internet technology has undeniably redefined the way goods and services are designed, communicated, and delivered to customers. The application of Internet technology in the businesses has been proven to improve their performance (Solliman et al. 2017).

Modern day businesses have focused on making information technology an integral part of their operations in order to stay competitive in world markets (Oliveira et al, 2014). Not just the developed countries, but the developing countries have also benefitted from the advancement in information and communication technology (ICT) that has brought a remarkable revolution in the delivery of services to their customers (Patel and Patel, 2018).

The term electronic management is considered one of the most important and latest scientific terms developed in the field of modern science, it first appeared in the United States of America as a result of the development of information and communication networks. Electronic management refers to the use of information and technological means of communication, such

[1] School of Graduate Studies, Business Management, Management and Science University, Shah Alam, Malaysia, Email: ahmed.mukt@gmail.com
[2] Lecturer, Faculty of Business Management and Professional Studies, Management and Science University, Shah Alam, Malaysia. Email: arun_kumar@msu.edu.my.

as integrated long-term networks, and the Internet and computers in providing administrative services to clients and customers (Fatima, 2018).

According to Tareqi (2018), electronic management (EM) is a system with multiple functions and applications, including what is specialized in internal administrative operations in the institution, including what is related to how to deal, communicate and provide service to customers. Tareqi (2018), also emphasized that the success of electronic management in any Arab organization depends a lot on the how much the response of administrative service receiver (Customers) to deal with its applications. Therefore, we find that the direction of research on information technology in general and electronic management particularly today is about how to ensure the success of its application and knowing the factors affecting the intention of customers to use of electronic management application.

Currently, many universities globally have adopted e- Management and they have recognized that it has made a positive effect on their performance (Cordella, & Smithson, 2011). The e-Management enables universities to link their internal and external data processing systems more efficiently and flexibly, to work more closely with their students and staff, and to better satisfy the needs and expectations of their clients (Paul, 2000). Therefore, students' involvement and acceptance must be considered; otherwise, advanced systems will most likely fail. Many universities that offer electronic services encounter various difficulties in terms of adopting successful strategies including the acceptance and effectiveness of delivering courses. More importantly, understanding students' acceptance of e-management is considered the most major step toward implementing and developing a successful e-learning environment (Butorac, M., Nebic, Z & Nemcanin, D., 2011; Eraslan & Kutlu, 2019).

On other hand, many organizations continue to invest large amounts of resources in new IT, & determining the potential acceptance of these new technologies is important (Rhodes, 2010). If the new IT is accepted & adopted by users, the chances of the system & investments' success greatly increase **(**Su, et al, 2010**).**

According to (Benghet & Helfert, 2014; Al-Mayel and Al-Sharbaji, 2017) In practical terms, the Libyan universities that deliberately provide some services through their electronic portal suffer from low acceptance of students to rely on these services. That may be due to many factors and which makes us face the dilemma of factors affecting the acceptance of students to use technology. Therefore, this paper is an attempt to provide a theoretical framework to understand the influencing factors on student's intention to adopt e-management based on few theories that related to customer behavior and technology acceptance.

Literature Review

Electronic management

According to (Ben Soghair, 2016), the definition of electronic management can be viewed from two sides, as electronic management from the point of view of the organization, leadership and employees is the conversion of paper transactions into computerized transactions, while electronic management from the point of view of the customer or the requesting service represents is obtaining the service using electronic applications remotely by a network Internet. Therefore, we find that the optimal and most comprehensive definition of electronic management goes beyond being a modern means of practicing the accepted administrative functions but extends to it as a modern means used by the customer to obtain the service, and this is what mentioned by (Alyan, 2012; Shuai, 2016).

The conceptual design of e-management is based on the integration of all the major attributes (Figure 1.1) in e-management environment. The following will focus on those attributes:

1. Database management system (DBMS)

The core or the heart of the whole system is the Enterprise Database, which is a central warehouse where all data are collected, stored, analyzed and retrieved in an efficient and structured manner (Yao et al, 2011).

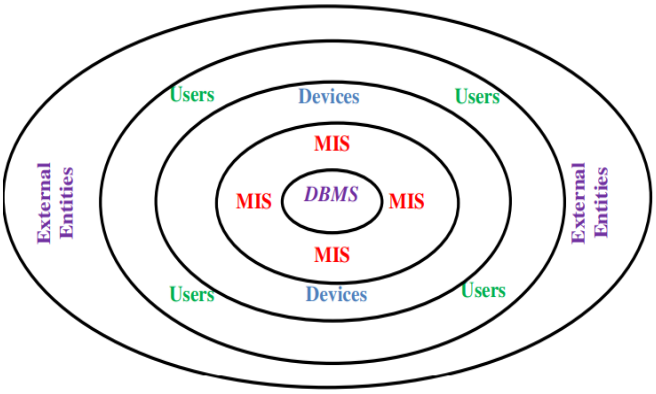

Figure 1: The attributes of E-management.

2. Management information system (MIS)

Management Information System (MIS) is a complete and integrated application system to support the operation of the organization. It is designed on top of E-Management's Principles to achieve E-Management's vision and mission (Ijeoma, 2018).

3. Devices management

E-management will utilize all available devices in the industries in order to increase the level of automation. The devices will be interacting with MIS application and Database Management System. It will update the data into enterprise database through MIS applications (Shuai, 2016).

4. User management

The fourth layer is all the users who are involved in using the system either as a process owner or an end-user. All the users must be identified and categorized properly to ensure every type of users are given a proper attention in terms of planning, designing, development and implementation (Yao et al, 2011, Shuai, 2016). Table 1.2 shows example for users of e management in Education institutions.

Factors Affecting adopting of E-Management

Factors affecting acceptance and adoption of E-Management have been investigated in many countries such as the US, Europe and Australasia. On the other hand, there are limited researches that capture the factors that have influenced employees' behavior to adopt or use E-Management in developing countries such as Libya.

1. Perceived Usefulness

According to Davis et.al (1989): Perceived usefulness is defined as "the extent to which a person believes that using the system will enhance his or her job performance". Within the organization's context, people are ordinarily reinforced for good performances by raises, promotions, bonuses, and other rewards (Pfeffer, 1982). According to TAM, perceived usefulness is also influenced by perceived ease of use because, other things being equal, the easier the system are to use the more useful it can be.

2. Perceived Ease of Use

According to Davis et.al (1989) and Durodolu (2016) : PEOU is perceived ease of use is the extent to which an individual considers that making use of a specific system would be effortless and hassle free; in other words, ease of use means freedom from complexity and trouble". Diop et al (2019) concluded that the "TAM model can be accustomed to predict IT usage but that ease of use is not a strong predictor of intent". However, usefulness was shown to predict intent, and ease of use was associated with usefulness. The TAM model has been broadly researched and empirically established across various domains. Antinoja & Scherling, (2019), confirmed that major premise of TAM is that the perceived usefulness and perceived ease of use of technologies will directly correlate to technology is accepted and used in the work environment.

3. Subjective Norms

Subjective norms (SN) is the second main determinant of theory of planned behavior that is assumed to be a part of belief that specific individuals approves of disapproves the performing of behavior (Ajzen and Fishbein, 2005). Individuals who believe that they are motivated to comply with others to perform their behavior are actually surrounded with social pressure and the individuals who are motivated to comply and disapprove by avoiding performing the behavior will have subjective norm. Thus, it can be said that subjective norms are expressed symbolically that is the combination of normative beliefs and motivation (Silverman et al, 2016).

4. Computer Experience

There have been many studies carried out over the last decade that have examined the adoption/non-adoption, benefits/disadvantages of information system in different sectors. A comparison of some of these studies has revealed conflicting results. On computer experience in Education, some research suggests that there is a positive relationship between computer attitudes and computer experience. That is, the more contact people have with computers, it is more likely that they will have favorable attitudes towards them (Bozionelos 2001; Smith et al. 1999; Chiner and Victoria, 2017).

5. Information security

Information security is a concern in organizations today and there are numerous security related threats to information assets, both internal and external. A common and highly regarded security measure is to formulate and communicate an information security policy. The information security policy contains intentions, principles, rules and guidelines which the management wants the employees to adhere to. As succinctly put in (ISO/IEC, 2009), the objective of the information security policy is "to provide management direction and support for information security". It should describe things like: the consequences of security policy violations, acceptable use of computer resources, responsibilities for information security and the training that employees of different types should have. The basic idea is that compliance with an adequate information security policy will increase the information security level of the organization. However, achieving information security policy compliance in organizations is far from trivial (Hussin, et 2016).

Attitude as Mediator

Attitude towards using system and its major determinants significantly impact on using or rejecting the system. Perceived usefulness and perceived ease of use played crucial role to influence user's attitude towards adoption of system (Diop et al ,2019). According to Straub (2009)"user's adoption innovations addresses key constructs like emotions, contextual concerns, and cognitive approach". The end user's satisfaction is the key indicator of system performance including its high increase in acceptance, (Lai., 2017). Perceived usefulness, perceived ease of use, user's involvement, user's expectations, user's skills and user's

participation were considered as factors involved in advancement of system, support towards organization, perceived attitude of top management and user's attitude towards information systems. Mahmood et al. (2000) and Moons & Pelsmacker (2015): "User's involvement was found to be the most significant influence on systems advancement, perceived usefulness, user experience, organizational support and user attitude toward the Information system".

Afshari et al (2013); Ambrose & Palpanatha (2017) found high correlation between perceived ease of use and attitude when investigating computer assisted language learning for students. Furthermore, (Suki and Suki ,2011; Nguyen et al, 2019), mentioned that perceived ease of use are believed to directly influence person's attitude and also found that perceived ease of use (PEOU) is significantly related to behavioral intention. (Nakayima,2011; Kapoor et al , 2017), stated that adoption of new technology is affected by perceived usefulness and perceived ease of use that influences behavioral intention to use the system. Furthermore, previous researchers like (Gefen & Straub, 2004; Gong, Xu, & Yu, 2004; Guriting & Ndubisi, 2006; Wei et al, 2009), confirmed the influence of perceived ease of use on intention. Ramayah et al (2012), found correlation between perceived ease of use and attitude to be stronger followed by perceived usefulness, user satisfaction social influence and user support.

The TAM is a specific model developed to disclose and predict users' computer usage behavior. Derived from the TRA Ajzen and Madden (1986), it predicts user acceptance based on the influence of two user beliefs: perceived usefulness (PU)and perceived ease of use (PEOU). Both PU and PEU are posited as having significant impact on a user's attitude (AT) towards using the system. Behavioral intentions to use are jointly determined by a person's attitude towards using the system and its perceived usefulness. BI then determines the actual use (AU) of the system. Using different methodologies, numerous studies have found that PU and PEU correlate well with IT acceptance across a wide range of information systems (Gefen, Karahanna, & Straub, 2003; Saadé & Bahli, 2005; Selim, 2003; Venkatesh et al., 2002; Nguyen et al, 2019 kapoor et al , 2017).

The present study attempts to increase awareness and attitude of users for positive perception towards adoption of e-management system. The study states that motivation and perception are very crucial for influencing intention of users towards adoption of e-management. Similarly, regarding the perception of user's, variables like perceived usefulness and perceived ease of use were extracted from Technology Acceptance Model.

Framework and Hypotheses Development

Three theories namely, the technology acceptance model (I, II), theory of planned behavior and theory reasoned action are the basis of the framework in present study. The framework of the study is grounded by the TAM model that was suggested by (Davis 1986).

The TAM, suggested by Davis (1986), generally elaborates the computer acceptance determinants and examine the effects of external factors on internal intentions, attitudes and beliefs. The external factors, perceived ease of usage, perceived usefulness, using attitude, behavioral using intention and system coverage all comes under TAM. The first and foremost indicator of the acceptance of technology is the system usage (Davis et al, 1989). The primary internal beliefs for technology acceptance behavior include perceived ease of use and perceived usefulness. These two are positively related with the acceptance of the technology (Davis et al., 1989). Hence, the researcher assumed the positive association between acceptance of

technology and perceived usefulness, and acceptance of technology and perceived ease of use in the E-management area.

In the theoretical framework the perceived usefulness, perceived ease of use, subjective norms, computer experience and information security are the independent variables. Attitude play a mediating role in this framework whereas intention to adopt e-management perform dependent variable.

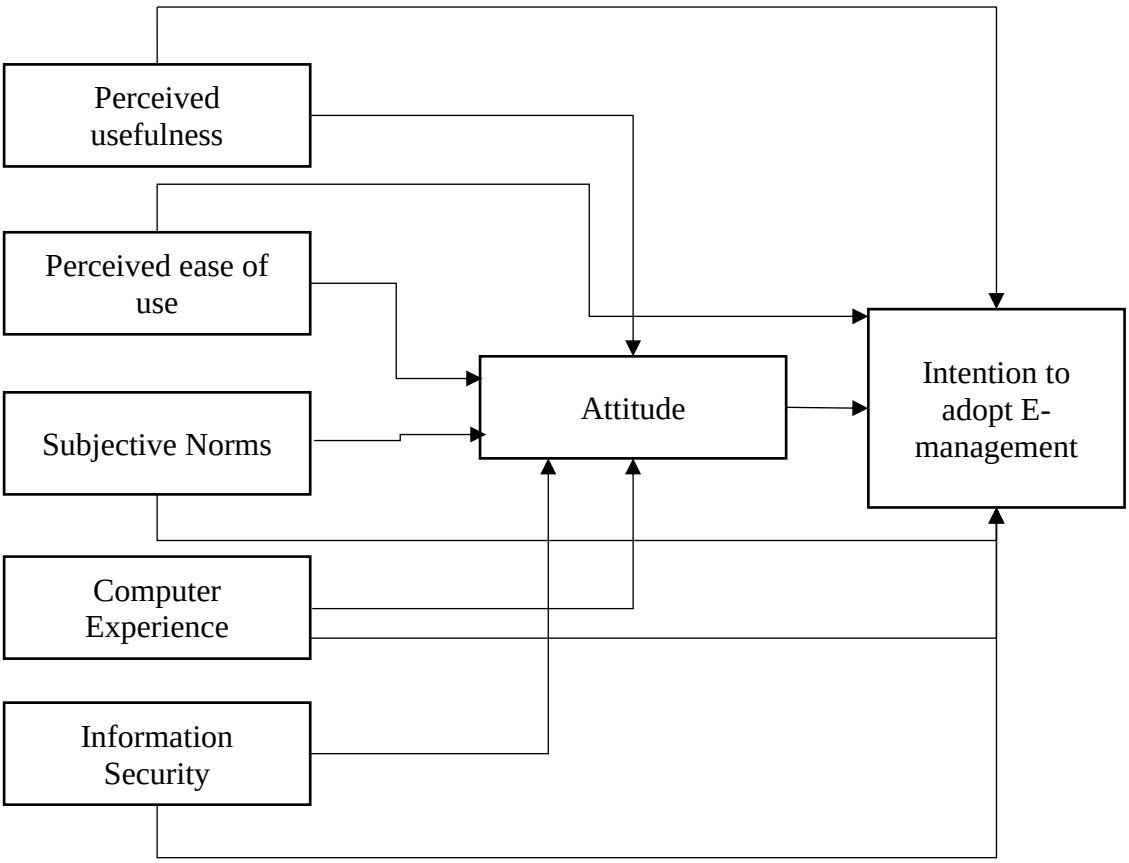

Figure 2: Theoretical framework

The research hypothesis were built keeping in mind the paths originated in the theoretical framework.

H1: Perceived usefulness has a positive and significant effect on behavioral intention to adopt e-management.

H2: Perceived ease of use has a positive and significant effect on behavioral intention to adopt e-management.

H3: Subjective norms has a positive and significant effect on behavioral intention to adopt e-management.

H4: Computer experience has a positive and significant effect on behavioral intention to adopt e-management.

H5: Information security has a positive and significant effect on behavioral intention to adopt e-management.

H6: Perceived usefulness has a positive and significant effect on attitude to adopt e-management.

H7: Perceived ease of use has a positive and significant effect on attitude to adopt e-management.
H8: Subjective norms has a positive and significant effect on attitude to adopt e-management.
H9: Computer experience has a positive and significant effect to attitude to adopt e-management.
H10: Information security has a positive and significant effect on attitude to adopt e-management.
H11: Attitude has a mediating attitude has a mediating effect on the relationship between the factors and student behavioral intention to use e management.

Methodology

Research Approach

This research is considered a quantitative research, as it aims through relying on this approach to determine the extent of the factors affecting the intention of students adopting electronic management by considering the attitude as a mediator variable. According to (Amaratunga et al., 2002), describing the epistemological methodology has always been the concern of quantitative research to determine the truth. The quantitative methodologies are generally flexible in data dealing and making comparisons and doing statistical analysis for the verification of reliability.

Population, sample and sampling technique:

Target population in this research are individual students who become perpetrators of university who have been using electronic technology in the form of e-management in university management.

The sampling technique in this research is or judgmental sampling. The Purposive or judgmental sampling is a strategy in which particular settings persons or events are selected deliberately in order to provide important information that cannot be obtained from other choices (Taherdoost, 2016). The criteria used based on judgment about population characteristics and objectives of this study, where the criteria used in selecting samples in this study are:

A. The university students both graduate and post graduate in the universities.
B. The university students who have been using e-management for the last 3 months with an intensity of at least 3 times and still intend to use e-management.
C. Student aged at least 16 years.

Discussion and Conclusion

In conclusion, this study has been able to provide a foundation for future empirical study by proposing a framework to assurance the students' acceptance to use the e management services in Libyan universities, using the role of students' attitude as a mediator variable to get the intention behavior of student toward e management adoption.

The relationship framework which provides an original and a unique theoretical background and framework could be used to determine the most factors (Perceived usefulness, Perceived ease of use, Subjective Norms, Computer Experience, Information Security) can contributes to the effectiveness of the shift towards electronic management in providing services to students. Thus, raise the level of these factors among students in order to achieve full acceptance of the adoption of electronic management and its applications. This would achieve a big leap for

universities services, whether from an administrative or academic perspective. The Libyan universities in deep need of this level of providing those services in terms of speed, ease and quality.

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