

# **Influential Factors of Online Databases Usage among Information Management Background's Students**

**Fateen Zakira Binti Adnan and Norhayati Hussin**

Faculty of Information Management, University Teknologi Mara,  
UiTM Selangor, Malaysia.

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## **Abstract**

Due to the technology cultured in today's world, the learning process has started to change. Student nowadays are persistently required to do some transformation in gaining knowledge. Online databases is a one of the method that has been used nowadays in teaching and learning that have intend many benefits to the people involved and use it. Through the usage of online databases which has been the one of the central focus in teaching and learning process in higher education with the significant use of technology during the learning process. However, some students seem not to bother with this implementation in learning process or there are some factors that make the lack of students not used the online databases as a method for them in gaining knowledge. Aim of this paper is to propose a new framework about the influential factors of online databases usage among students, especially students from information management's background.

**Keywords:** *Online databases, culture, behaviour, attitudes, technology, Information management's student.*

## **1. Introduction**

The learning process started to change due to the technology cultured in today's world involving technology in every process. Widely usage of technologies today is become familiar in every sector including educations in adapting the technological changes development. Students also obstinately required doing some transformation today by using the technology as the mediator in gaining information and knowledge especially for universities students that used online databases when to seek information or for their needed.

An online database is a terminal that connected the computer storage of file and documents that can be interacts by the users through the organized file's machine readable that can access through the internet or using the network. There are the terminals that have been wired directly to the computer or others gadgets that can make telecommunications networks can be communicated with it. The main features of and important to use the online mode is that the interaction with people and computers, through the process of sending and receiving information within the time frame that almost immediately.

Furthermore, the objective of this paper is to propose the framework that involve to the factors that give an effects of online databases usage among information management background students based on two different universities which is USIM and UiTM. There are

several framework that has been discover in this paper that supported the factors that affect of online databases usage among information background student.

The existence of the sophisticated technologies are spreading fast and the usage on the technologies make people more focus on using that especially in educations field. University students nowadays have been exposing on this kind of technology especially online databases that can make them easy to get information. The initiative of libraries in each university to give the accurate and easy retrieve information to the students should be praises because online databases can give more benefits to students.

The costs on the subscribing an online database is not the low costs, so sometimes they want the costs of subscribing of those databases worth from students usage. It have been supported from huge amount is invested for the subscription, growth, and management of e-databases (Naqvi & Tanveer Haider,2012). But, that did not happens maybe some factors that been affects on the using of online databases among students especially students from information management background that have more information in using online databases.

The problems statements on this paper have been created because the usage of online databases among information background students is limited, and it can be conclude that:

- Limited number of students that used the online databases in their learning process especially student from information management background.
- Environment or culture of the university as one of the factor that affects of online databases usage among students.
- Lacking approaches from the people surrounding make student especially from information management background not really use the online databases in their learning process.

## **2. Literature Review**

The section of literature review is focused on the previous study that related to the research topic that focuses on the usage of online databases and the invention about online databases among students. It will also explore the behaviour, culture and the needs of students that can be factors that affects on usage of online databases.

The previous study that have been reviewed in this paper can make reader get the overview about the topic that been discuss. For this topic, the usage on online databases among students especially university students nowadays is common because of the growth of the technology that make students utilize of the benefit of technology in learning process. It is supported that new information technologies are increasingly being adapted and integrated into the educational process (Duhaney,2000). But, even the initiative from the university in subscribing the latest and the good databases to the university but, the rates on online databases usage is not really give the bid responses from the students even the students that involve in the information field also not really fully utilize the online databases.

This study is focusing of the usage of online databases among student that have background of information management because they are more involved in the information field process. The factors that have been evaluate that maybe give an affects to the usage of online databases in this study are on the culture, behaviour, and needs. Based on the previous study that state the

culture and behaviour as a mechanism in sharing knowledge among undergraduate students in UiTM Johor that effects the knowledge sharing by (Suhaila et. al,2015) study about the culture that maybe can give effects to the process of knowledge sharing among student information management students in UiTM Johor that also have involved in the information field.

There is another article that study about the “Factors That Influence Online Database Use, (Tenopir, 1999). This paper reports on a two-phase study of academic libraries to identify patterns of database use and what subtle factors might influence this use. (Tenopir,1999). In this paper, there are 96 selected online databases from different academic libraries expose the rate of usage of online databases and the selected databases that used.

For the findings in this paper, there are patterns that influencing the usage of online database that shows the result that most of students used online databases in the beginning week, mid-day and when the submission date are due. The author also concludes that these students follow their academic life that maybe related with the culture and the environment that can give effects to the students to use the online databases. Based on that, it can be conclude that the needs of the students from the factors of assignments that can influence them to use the online databases.

Moreover, there is another research paper that written by Jung Wan Lee, Kip Becker & Helena Nobre that entitle “*Impact of culture on online management education also stated the impact of culture that can support the variables in this study that the factors that affects on usage of online databases among student*”. This paper is to investigate the effects of national culture on the acceptance, and online interaction, of management education and training online using Hall’s cultural classifications and Hofstede’s cultural framework (Jun Wan Lee et. al, 2012). The authors of this study adopt the framework from previous research to support their research. For the findings in this paper, the authors stated that “*It was clear that a nation’s culture directly affects the manner in which participants engage, relate and benefit from online management education/training*” (Jun Wan Lee et. al,2012). So based on the findings that stated, it can be conclude that culture one of the factors that affects the usage on online databases among information management students.

From that previous study that have been explained before, it can make that the influential factors of online databases usage that proposed in this paper have supported from the previous studies. There are five articles that have been referring to get the variables in this paper to develop the proposed framework for this paper. There are only selected and related articles are being referring to further support this study.

The first theoretical framework that have been reviewed is the research that entitle “*Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT)*” by Ricardo de Sena Abrahão, Stella Naomi Moriguchi, and Darly Fernando Andrade that was published in 2016. This study is about the mobile payment services future adoption that intent from the Brazillian consumers of mobile phone perspective that based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model. Figure 1 shows the framework of this study :

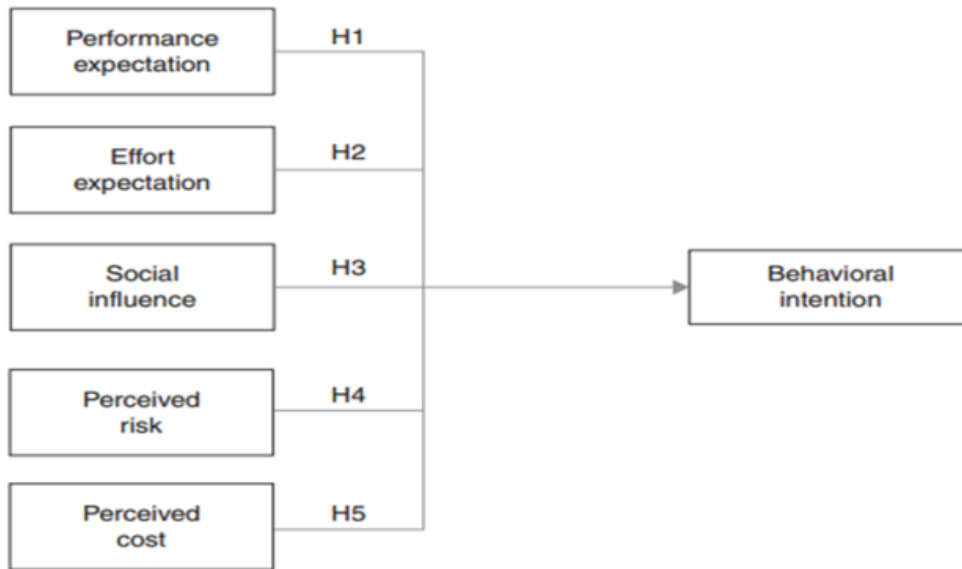


Figure 1 . Proposed theoretical model from article Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT) by Ricardo *et. al* (2016).

**Table 1**  
**Definitions of the constructs.**

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*Performance expectation:* This measures how much people realize that a system such as the Internet or a mobile technology is useful in carrying out their tasks in day-to-day work (adapted from Venkatesh et al., 2003)

*Effort expectation:* This explains the degree of ease associated with the use of the system. It originates from three constructs of existing models: perceived ease-of-use (TAM/TAM2), complexity (MPCU) and ease of use (IDT) (adapted from Venkatesh et al., 2003)

*Social influence:* This is defined as the degree of influence that opinions of others can have on the adoption of a given system. Social influence as a direct determinant of intention of use is represented as a subjective standard TRA, TAM2, TPB/DTPB and C-TAM-TPB; social factors in MPCU and image in IDT (adapted from Venkatesh et al., 2003)

*Perceived cost:* This refers to the initial, subscription, transaction and communication costs to which the consumer believes he or she will be submitted to in the future. It also includes the consumer's ability to buy a mobile device that is compatible with the mobile payment service (adapted from Shafinah et al., 2013). We also consider the costs related to the time and effort required to collect and analyze change and decision-making alternatives, as well as the development of the relationship with the new supplier or the new service (Gastal, 2005)

*Perceived risk:* This is defined as the degree to which the consumer of mobile services believes that he or she may be exposed to certain types of financial, social, psychological, physical or time risks (adapted from Zhang, Zhu, & Liu, 2012)

*Behavioral intention of adoption:* This refers to the intention of effective use by the consumer of a future product or service (adapted from Venkatesh et al., 2003)

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*Source:* Adapted from Venkatesh et al. (2003) and Shafinah et al. (2013) (our translation).

Figure 2. Definition of terms in the framework

Figure 2 have described the terms that involve in that study. This research was held the survey among mobile customers of a telecommunications company in Southeastern Brazil with 605 samples of respondents. From this research, the authors were given the results that stated the more on behavioural intentions that explained through the expectations of performance, efforts, social influenced, perceived risk and not statically significant on perceived cost on this study. However, this study results as a guide on having good performance, easy to use, secure and meets their needs for the users of services for mobile payments.

This aim, findings and theoretical framework that has been developed by these authors is related to the current study and this study because it have relate with the behaviour, and performance of people.

For the second theoretical review based on this study is the study by Viswanath Venkatesh, Michael G. Morris, Gordon B. Davis, Fred D. Davis, entitle "User Acceptance of Information Technology: Toward a Unified View". This framework was adaption from the eight models and analyse and this is called unified model or Unified Theory of Acceptance and Use of

Technology (UTAUT) was formulated, that include four core determinants of intentions and usage, with up another four core moderators of key relationships.

The objectives of this study are to review the extant user acceptance model that is to evaluate the individual understanding acceptance with the new information technologies. Second objective in this study is to compare the eight models empirically, third to formulate the UTAUT models through this study and fourth to empirically validate the UTAUT models. This study was invented because of the presence of computers and the expanded of information technologies in organizations today. Figure 3 is the framework model in this study :

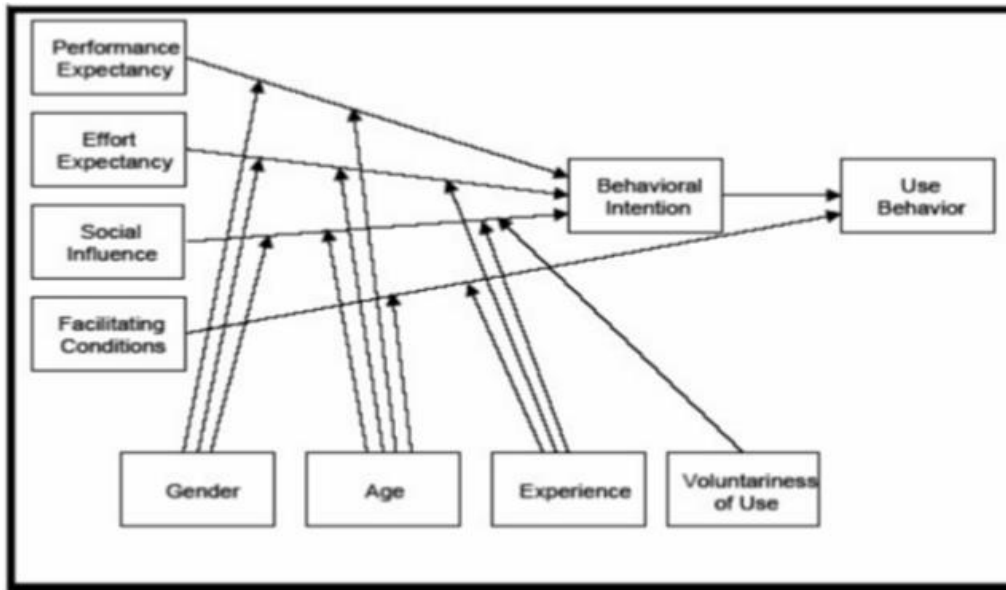


Figure 3. Theoretical framework on User Acceptance of Information Technology: Toward a Unified View by Venkatesh *et. al* (2003)

Third theoretical framework review in this study is from the research that entitle “Technology Acceptance Model: A Survey of Literature” by Priyanka Surendran. This study is about the literature that involved TAM model. The author has reviewed the numerous literatures in this study and to provide the TAM model on future trends in the technology today. According to the author the definition of TAM “*Technology Acceptance Model has been developed by Davis(1989) is one of the most popular research models to predict use and acceptance of information systems and technology by individual users* (Surendran, P.,2012). The authors also stated that two factors that perceived usefulness and ease of use of TAM model is relevant in computers use behaviour and it widely studied and use in several studies. Through this study, the author also to explore and understand the different changes of the model that have been adopt by others researcher. Below the Technology Acceptance Model (TAM) from this article:



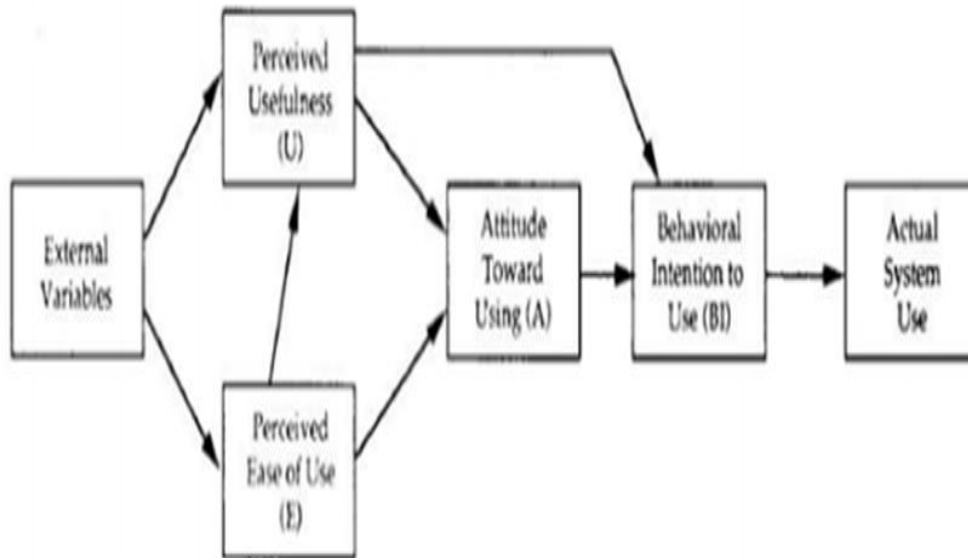


Figure 4. The Technology Acceptance Model: A Survey of Literature by Priyanka Surendran (2012).

The fourth theoretical framework model that has been review in this study is from the study that entitles “Hospital-Based Nurses’ Perceptions of the Adoption of Web 2.0 Tools for Knowledge Sharing, Learning, Social Interaction and the Production of Collective Intelligence” by Adela S.M Lau(2011). This objective of this study is the author wants to investigate on how the Web 2.0 tools can be applied in sharing of knowledge, learning process, social, interaction and the productive of collective intelligence in the nursing domain. It is also to examine on behavioural perception that involve in the Web 2.0 among nurses.

Moreover, through this research, the author has review and adoption the human behavioural model that can be used in the research that to measure the human behaviour. There are some models of human behavioural that have been reviewed in this study such as The theory of reasoned action (TRA), that is theory that introduced by Azjen and Fishben(1998) that determine the human performance on specified behaviour by people behavioural intention. Next, is theory of planned behaviour (TPB), this theory that expects an individual's intention to involve with behaviour in a specific time and place and the technology acceptance model (TAM) that is the most used in the study to determined or measure the human behaviours. Through the all models that have been adoption, the author has proposed a model for this study. The proposed model details are below:

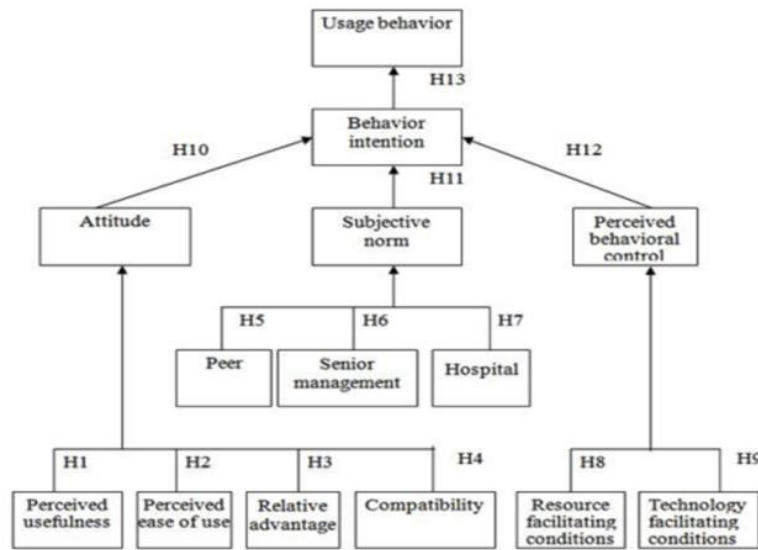


Figure 5. Framework on Hospital-Based Nurses' Perceptions of the Adoption of Web 2.0 Tools for Knowledge Sharing, Learning, Social Interaction and the Production of Collective Intelligence by Adela S.M Lau(2011).

The fifth theoretical framework in this study is the study written by Omar El-Gayar, Mark Moran and Mark Hawkes that entitle "Students' Acceptance of Tablet PCs and Implications for Educational Institutions. Educational Technology & Society". This study is to test the factors model of college students understanding on accepting of Tablet PC (TPC) in forecast, elaboration, and enhance their pattern usage in education. This study has the sampling about more than 230 students that involving in this research. The models that have been developing in this study are good fit with the data and the power of the explanatory on acceptance of TPC in the educational and learning settings. In this study the author also engages with the TAM model to access the various factors that affects on the acceptance of the TPC by the students.

The analysis of the result from this study, state that the number of implication of the TPC to educational institutions. According to the Omar et. al. (2011), the institutions wishing to collaborate in TPC initiatives that need to involve TPC in programme that can influence students on that and also create the positives environments with the use of the TPC. By following the previous research Chau and Chu(2002) that this model hypothesizes the students acceptance in this study can be explained from the numbers of factors that can be divide into the technological, individual, and organizational factors. The framework or proposed model that intends in this study leverage from the TAM, TRA, TPB, and UTAUT models such as below:



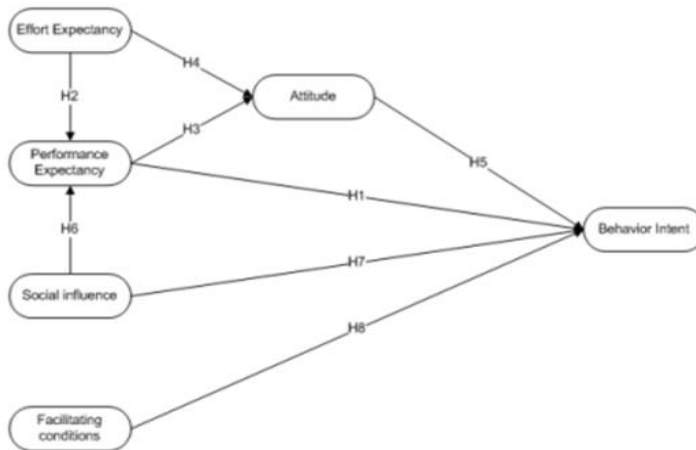


Figure 6. the framework on Students' Acceptance of Tablet PCs and Implications for Educational Institutions. Educational Technology & Society by Omar El-Gayar, Mark Moran and Mark Hawkes.

### 3. Proposed Framework

The proposed framework in this paper that has been invented from the previous frameworks. There are three independent variables with two dimensions in each variables and one dependent variable involve in this study as presented above. The variables have been identified from the previous framework that related with this study. Most of the referred framework that has been reviewed is about the models that measure the human behaviour. This framework has been developing to determine the relationship between the independents variables and the dependent variable. There are the dimensions that involved in every part of the independent variables that are the factors that can be measured in this study. There are environment and people approaches dimension under the culture variable, attitude and performance under the behaviour, and decision making and assignment under the Needs of independent variable.

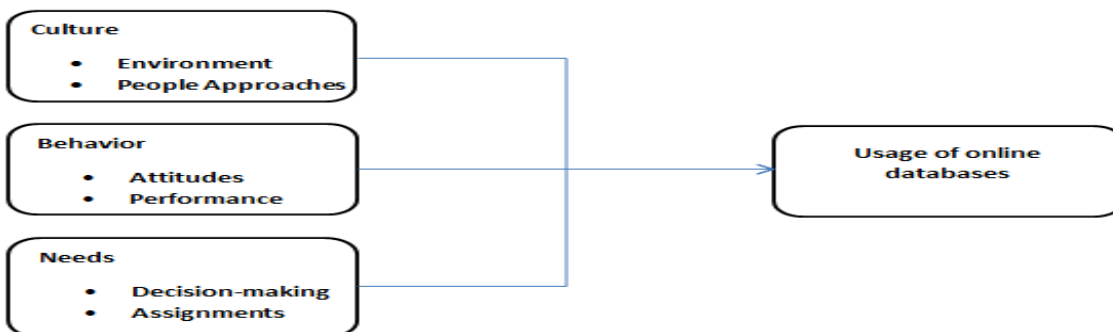


Figure 7. Proposed Framework

#### **4. Conclusion**

For the conclusion, the expected outcome from this paper is all the factors that have been proposed before have the positively correlated with the online databases usage among information management background's student in that two universities.

In addition, there are also supported from the previous studies and the frameworks about the influential factors of online databases usage among information management background's students. The most factors that can influence the usage of online databases are the factors of culture, in terms of environment and the approaches from the people surrounding.

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