



User Acceptance Assessment of E-Commerce Services; *How to Improve the Usage Rate of An E-commerce Application*

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Abstract

The global prevalence of the Internet has encouraged many businesses to shift their operations to e-commerce platforms. Today, most of the businesses are performing on their e-commerce platforms as well as keeping on their physical presence, or they are following plans to run online in the near future. It is evident that a great number of e-commerce projects may fail because of various reasons ranging from misunderstanding about objectives, underestimating financial costs or failure in running a secure electronic commerce service. One remarkable reason to fail is end-users' refusal. Users may refuse to use an e-commerce service because one e-commerce service does not provide their preferred specifications or does not seem to be adequately secure and private to fully rely on. Rejection of users leads to their disappointment about an e-commerce service and finally failure of one e-commerce service. Thus, it is becoming inevitable for decision-makers to assess user acceptance of an e-commerce service through comprehensive models. This paper aims to discuss the importance of users' acceptance assessment for e-commerce services, and presents adopting one comprehensive model that is priorly introduced to assess users' acceptance of e-commerce services.

Key Words

User Acceptance, Technology Adoption, Technology Acceptance Model, E-Commerce, E-Service, E-Service Technology Acceptance Model (ETAM)

I. E-COMMERCE

The emergence of the Internet has created a wide range of online opportunities for businesses to grow and operate on an international scale. Due to the advancement of digital technologies and the expansion of the Internet, the widespread use of businesses from online platforms has become inevitable (Hamed Taherdoost & Hassan, 2020; Hamed Taherdoost & Madanchian, 2020). The opportunity to connect worldwide through digital networks and digital services is available unlimitedly for businesses to exploit and reach a greater audience. The Internet is regarded as the backbone of any modern service following the intentions of creating value for users. Service channels are altered from traditional human-based platforms to virtual systems and businesses have to follow the rules of the modern digital world; otherwise, they would be destined to failure (Hamed Taherdoost & Hassan, 2020). With the advent of internet-based communication channels and the revolution in ICT, remarkable developments have been witnessed in socio-economic levels, and the competition in the market has become even more complicated. The solution chosen by most business owners to address the demands of modern users is shifting to e-commerce platforms (Hamed Taherdoost, 2020a).

As businesses and customers are encouraged to the utilization of e-commerce platforms, the prevalence of e-commerce services that facilitate the operation of internet-based interactions increases as well. Information technology tools and techniques are widely employed to modernize businesses and to switch the economy from goods to services. E-commerce services that originally refer to the services provided through electronic channels are considered as fundamentals of digital aged businesses (Hamed Taherdoost, 2020b). A significant number of businesses rely on e-commerce services provided on the screen. E-commerce minimizes or even eliminates the necessity for physical presence and contact between clients and staff (Hamed Taherdoost, 2016). As a consequence, the operational cost will decrease to an acceptable extent. Thus, it is crucial for various business sectors to provide e-commerce establishments in order to differentiate and segment their business in the market. The application of e-commerce in governments, education systems, transportation systems, financial services, healthcare, and retail services has become mandatory mostly because of the over-reliance of individuals on these systems on a daily basis. The usage of e-commerce is beneficial for both end-users and service providers. It helps businesses to deliver their products and services effectively through online platforms, and promotes services in different aspects such as providing advanced user interactions, efficient information management, acceptable accountability and transparency, customer satisfaction, wide accessibility and reduced cost.

II. USER ACCEPTANCE ASSESSMENT

It is evident that any kind of transition will be faced with resistance of internal and external factors. Facing screens instead of people may be regarded as uncomfortable for a remarkable number of users that will in turn lead to dissatisfaction and resistance to accept the innovation. In case of rejection from end-users, e-commerce services cannot perform successfully to achieve planned objectives regardless of the level of their innate supereminence. Reliance on e-commerce platforms promotes the chance of

providing positive experience for end-users and will subsequently lead to the establishment of long-term relationships. It is widely demonstrated that most of the e-commerce services fail because of the same mistakes. One study (Interactive, 2006) has revealed that failures in e-commerce services negatively impact consumers by leading 32% of them to switch to another competitor that offers physical services and 8% of them to abandon transactions entirely. In addition, 91% of e-commerce service consumers who have experienced even a single form of e-commerce failure state that they are more likely to hesitate about the confidentiality of one specific e-commerce service to safeguard their private information through online transactions (Interactive, 2006). This highlights the importance of assessing users' acceptance of every new e-commerce service since a bad experience about just one aspect of an e-commerce service can produce an adverse impression and cause to lose credibility from consumers' perspective (Tan, Benbasat, & Cenfetelli, 2011).

User acceptance in e-commerce services is mainly associated with the decision made by users to adopt, refuse or continue to use e-commerce based on their perception about the function of the service. Therefore, development of an e-commerce is strongly tied with recognition of root causes that encourage users to accept using e-commerce. Understanding the perception of users as a major role player in determining the success or failure of implementing a service is crucial in today's dynamic business atmosphere. It is stated that the gap between the actual characteristics of an e-commerce service and users' perception leaves an influential impact on individuals' behavior and decision to adopt an e-commerce service.

III. USER ACCEPTANCE ASSESSMENT MODELS FOR E-COMMERCE SERVICES

Users' acceptance can be assessed through evaluating certain factors of various models. Several models have been introduced to address the attitude of users in accepting or rejecting new technologies and innovations regarding determining factors such as Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Diffusion of Innovation Theory (DOI), Model of PC Utilization (MPCU), Theory of Planned Behavior (TPB), Motivational Model (MM), Unified Theory of Acceptance and Use of Technology (UTAUT), Theory of Interpersonal Behaviour (TIB), Compatible Unified Theory of Acceptance and Use of Technology (C-UTAUT), and Social Cognitive Theory (SCT) (Hamed Taherdoost, 2018b). However, it has been stated that traditional acceptance models do not appropriately suffice to explain and predict the users' acceptance of new services delivered via digital channels since they are limited to a single application, geographical zone or other specifications. One crucial barrier that prevents users from adopting e-commerce and needs to be considered serious while developing an e-commerce service is the reluctance to share personal information via unsecure electronic channels (H. Taherdoost, 2017). A comprehensive model has been developed and defined effective factors influencing user acceptance of e-services which also covers main serious concerns of e-commerce users such as security and privacy that are presented to assess users' acceptance of any e-commerce service (Hamed Taherdoost, 2018a). The purpose of this model which is entitled "E-Service Technology

Acceptance Model” (Hamed Taherdoost, 2018a) is to assess major factors affecting the acceptance of e-services including satisfaction, security and quality. The conceptual model which includes 15 different variables (ETAM) is presented in Figure 1. E-Service Technology Acceptance Model (ETAM) can be used to assess the user acceptance of any kind of e-commerce service.

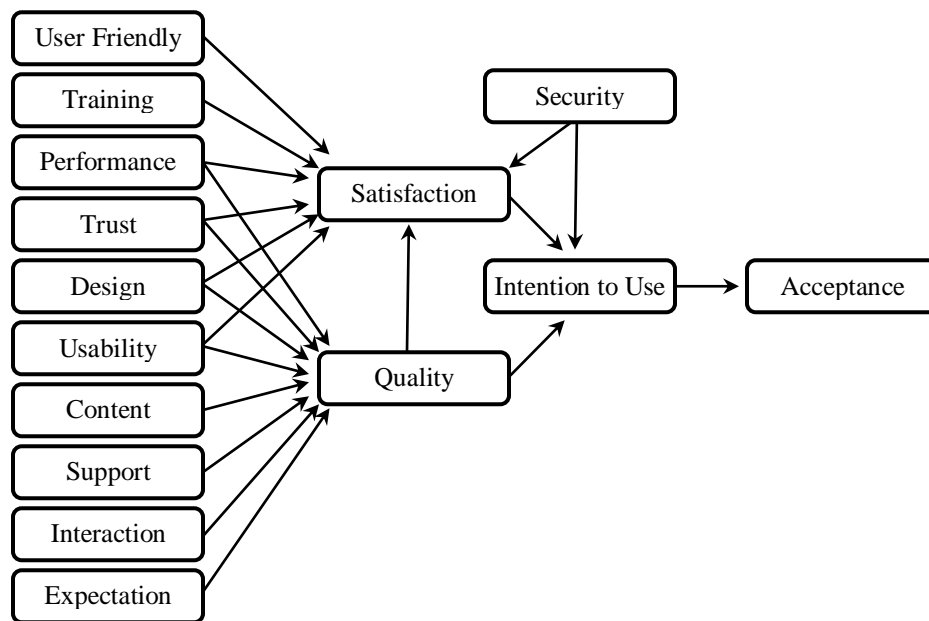


FIGURE I: THE E-SERVICE TECHNOLOGY ACCEPTANCE MODEL, ADAPTED FROM HAMED TAHERDOOST (2018A)

This is a comprehensive model that includes the most important indicators of users' intention to use e-commerce services and is also in accordance with new trends in e-commerce services. The utilization of this model that is regarded as an effective tool in the improvement of e-commerce implementation process, helps managers to assess, monitor and realize the process of e-commerce acceptance by considering the main factors influencing the acceptance of e-services, namely satisfaction, security and quality.

IV. CONCLUSION

As end-users' decision to accept or reject a technology is vital for its success, it is necessary for decision-makers to assess the level of users' acceptance about one e-commerce before developing or improving it. The intention to use or reject an e-commerce service by users is significantly correlated with satisfaction, privacy, security and quality. Deploying a comprehensive model to assess users' acceptance is highly recommended for service providers while developing e-commerce platforms and policies. The application of the presented model in understanding users' attitude towards e-commerce services guides decision-makers in providing appropriate strategies before starting to run or improve an e-commerce

project and encourages people to use their e-commerce services.

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