消費者の認知に関する電子システムサービスの
事例に基づく考察と学習システムの
導入に関する研究
Consumer’s Acceptance Models of Electronic System Services: A Case Study of E-payment System and Blended Learning  
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ABSTRACT

In this era, the development of Information and Communication Technology (ICT) has greatly contributed to the culture of a community. This has been evidenced by an increased in the number of Internet users towards ICT, especially in the United State of America and China. The implementation of ICT has been widely known in various fields, including electronic service (e-service) systems. The concept of e-service system represents one prominent application utilizing the use of ICT. Due to this fact, in recent years many developing countries such Rwanda, South Africa, and Malaysia have provided various types of e-service. E-service is online services through the use of ICT. The e-service system is used and applied in various types of field or expertise and the viewpoint of users, such as e-wallet, e-banking, e-health, and e-learning. As such, knowing the main focus and problem of e-service is crucial for global community in the future. As well known in the past studies the main focus of e-service system is electronic payment system (EPS) and blended learning (BL) system. Both of the EPS and BL systems are described as a group of a digital system using an Internet base.

In recent years, the EPS have become more popular due to the widespread of the Internet transaction. With increasing technology, the range of devices and processes used to transact electronically continues to increase while the use of cash
and check transactions is decreasing. This is mainly because it is much easier to carry cards or use mobile phones to pay for any purchases as compared to cash. Although this system is well known and the majority of consumers have used it, but the problem like mistrust of the consumer on the security system still occurs. The problem of mistrust of consumers on the security system plays significant roles in determining the acceptance of this system in the large-scale community. Therefore, this study interested to analyzing the factors that influence the consumers’ intention to use EPS. This study focuses on EPS for users in Malaysia that use cards, Internet banking, and mobile banking. The aims of this study is to investigate the extended Technology Acceptance Model (TAM) that include efficiency, convenience, trust, security, and traceability that influencing the consumers’ intention to use EPS. And to identify the mediation effect that occurs in the model. The study will examine in two parts, which is measurement model and structural model in the Structural Equation Modeling (SEM) analysis. Measurement model can be explained as the part that relates the measured variable to the latent variables. As for the structural model is the part that relates the latent variables to one another.

From the result of EPS, there are 761 respondents and the findings revealed that most of the respondents 96.2% have an experience using EPS either cards, Internet banking or mobile banking. The findings show that the Cronbach’s Alpha and reliability results of CR and AVE are satisfied the requirement of measurement model. The tests of the structural model showed that perceived usefulness and security was an important factor that affects users attitude and the behavioral intention to use EPS. Besides, the results also illustrate that efficiency had a positive and significant impact on behavioral intention to use by using mediation variables as a mediated such as ease of use, usefulness, and attitude. The fitness indices of the
hypotheses yielded that all the fitness indexes achieved the required level. The model was able to estimate the coefficient of determination ($R^2$) with 70.8% of the total variance in the behavior intention to use EPS.

For the mediation effect that occurs in the research model, the results found that there are three mediation models. Based on the three mediation models, shows that the first model has significant effect between efficiency and perceived usefulness through mediation perceived ease of use. Therefore, it can conclude that mediation occurs since the indirect effect is greater than the direct effect on first model. The mediation test needs to confirm the results through Bootstrap method. Based on results, only mediator one is partially mediated since the direct effect is still significant when the mediator enters the model. Meanwhile, other mediators are not mediated since the direct effect was not significant and the mediation did not occur.

Based on results, security is most important factor and should be considered when designing EPS to increase consumers’ intention to use. Therefore, in order to improve the security system, it is suggest that Central Bank of Malaysia introduce a new security system such as thumb print whenever consumers make an online transaction. By introduces a new security system, then consumers will have more confident to use the EPS.

Definition of BL is also known as the combination with traditional learning face-to-face class activities in a planned, pedagogically valuable manner. However, academicians probably disagree on pedagogically valuable, but the essence is clear that BL system uses online technology to transform and improve the learning process. In this study the Unified Theory of Acceptance and Use of Technology (UTAUT) extended model is tested. The UTAUT include the perceived playfulness, attitude and
moderator variable that is user type and teaching experience in explaining the acceptance level of BL systems is examined.

According to results, the total number of respondents was 201 comprising (24.4%) male and (75.6%) female. The majority of the academicians are lecturer with more than 5 years teaching experience. They are also experienced in the use of the Internet and most familiar with the BL. To validate the measurement and structural model in the SEM parts, the uni-dimensionality, validity, and reliability of a latent constructs result need to achieve the requirements. In addition, the reliability result of two criteria from composite reliability (CR) and average extracted (AVE) are displayed with the minimum value of CR and AVE was 0.6 and 0.5 respectively.

The findings reveal that the effect was significantly towards academicians. The results revealed that majority of academicians are familiar with the BL system but did not use due to lack of facilities such as Internet network, lack of knowledge, and felt hard to use. Therefore, the Ministry of Education in Malaysia together with schools and institutions are particularly taking necessary steps of improvement to ensure that BL is adopted at school and institution and also explains the advantages of its use. In particular, in order to increase the level of acceptance, the Ministry should provide high-quality internet network services to schools and institutions and also provide training or seminar and exposure to academicians on BL system, so there are no more barriers to using it in the future.

As a conclusion, TAM and UTAUT are important to analyze the EPS and BL towards consumers’ acceptance. TAM has been continuously studied and expanded the two major upgrades being the TAM2 and UTAUT. Therefore, the variables from both models are related to each other and suitable to explain the same concept, which is consumers’ acceptance of an information system.