Acceptance and Use Predictors of E-books: A Case at Universities in Sichuan, China

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Abstract
This study aimed to determine students' intention to use e-books at universities in Sichuan province, China. Partial least squares regression (PLS) was applied in this research. Two well-known technology acceptance models and a construct from previous study, Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) and Task Technology Fit (TTF) model and satisfaction were applied in this study. This study found that performance expectancy, social Influence, facilitating condition, hedonic motivation, price value and habit were the main predictors of intention of use e-books. Task and technology characteristics positively influence on adoption of use and user satisfaction. Lastly, intention of use also significant effect on adoption of use and user satisfaction.
Keywords: E-Books, UTAUT2, TTF, Intention to Use, Adoption of Use, Task Technology Fit, User's Satisfaction

Introduction
Digitization, a major trend in the development of human society, has led to changes in various fields. Any new development is worthy of praise but suspicion in the process. Digitization of books is also an inevitable result. There was an obvious trend to push human protecting the environment. Carbon reduction and saving energy were the key goal of this trend. Much of the research has focused on the replacement wave of Tablet PCs, the Notebooks and Smartphones and lead to the touch screens development. At the same time, the developing Internet as a new type of learning tool has directly led to the emergence of e-books. There is no doubt that e-books have huge market potential (Wen-Chia Tsai, 2012).
The impressive growth rate for e-books has continued. As stated in the Global E-book Report, the US market share for e-books increased from 0.6% in 2008 to 6.4% in 2010 (Wischenbart et al., 2011). 2010 was an important date in the rising success of e-books. It can be seen as a landmark year when Amazon e-books sales exceeded print sales for the first time (Becker, 2015) Furthermore, the first iPad was launched in 2010, a device which has also proved vital in increasing consumer use of e-books (Becker, 2015). Most of the research into e-books during this time reflected the newness of the accompanying technology. Nevertheless, it was not only in the US where e-books have been gaining in popularity; there was widespread use of e-books around the globe. At present, the major e-books consumer markets are the US, China, Germany, Japan, the UK, a number of other European countries, and countries in Latin America such as Brazil, Mexico, and Argentina (Spinak, 2016).

However, Voravickositt (2017) found that studies on e-books have mostly been conducted only in developed countries such as the US or UK, leading countries for innovation and technology. China's e-books development prospects are very good as well. But very few study choose China (especially the mainland) as a research target.

Alibaba research (2018) suggested the number of China's readers and the total time Chinese spent reading saw a significant increase between last 2 years. According to the report, in 2018, the number of Chinese readers increased by almost 30 million, the majority of whom were people born in the 1990s and 2000s. Compared with 2017, on average, the Chinese readers bought or read one more e-book on these Alibaba's platforms. The report of Alibaba (2018) pointed out that provinces and municipalities in coastal areas have the most voracious readers in China: Guangdong province, with citizens accounting for 11.5 percent of the country's readers, came on top for book reading and purchasing, followed by the provinces of Jiangsu (8.4 percent) and Zhejiang (7.2 percent).

Some studies have also explored the reader's intention from another perspective. Nihayra (2014) wrote the word "aliterate" in the study. "Aliterate" means the people who don't have time to read. This paper demonstrates the relationship between reading skills and reading enthusiasm. It can be assumed that if the reader can improve their reading skills, the reading enthusiasm of the reader will be improved. This provides a very good perspective on the study of Chinese reading behavior.

Reading preferences of Chinese readers have changed a lot in recent years. Chinese companies such as Igetget, Guokr and Zhihu launched a range of products and services for online readers. Purchasing behaviors have seen readers move from buying paper books online to purchasing e-books to read on e-reader devices. With reading habits changing, Chinese readers are now demanding more professional reading devices with a higher quality reading experience (Wang, 2017). Therefore, This paper aimed to study the intention of use e-books of university students in Sichuan Province.

Definition of e-Books

It is necessary to define e-books clearly before further analysis. The definition will be helpful to explain the intention to use e-books and user satisfaction. In a long period, the definition of e-books is indistinct. In the Oxford English Dictionary, the term 'e-book' is defined as "an electronic format of a particular book that can be read either on a dedicated device, a computer screen, or over the Internet". Further, the definition also includes any hand-held device that was made for reading books. Except the definition from the dictionary, some research literature also provided some definition:

1) E-book' can be applied to all linear texts of some length that can be read on a computer screen (Hillesund, 2001).

2) E-book is an online version of a printed book, accessed via the Internet (JISC, 2009).

3) E-book is a digital object that has been designed to be read on screen (Vassiliou et. al, 2008).

Theories Review

A group of leading information systems researchers formulated the Unified Theory of Acceptance and Use of Technology (UTAUT) model based on four contemporary technology acceptance models including TPB, TAM, DTPB, C-TAM-TPB (Venkatesh et al., 2012). The unified theory of acceptance and use of technology (UTAUT) is a little over a decade old and has been used extensively in information systems (IS) and other fields (Thong, 2016). UTAUT has been widely adopted for use in research into technology acceptance. Because this model was created by weaving together the most significant aspects of existing theories, the UTAUT model is now seen as the most likely to predict and explain the information

usage intentions of individuals (Venkatesh et al., 2012). Hsiao (2014) explained undergraduates' intention of use e-textbook adoption and assessed five theoretical models mentioned in above section, including TPB, TAM, DTPB, C-TAM-TPB and UTAUT. The study collected 321 usable questionnaires and used for analysis. The result indicated that UTAUT is the best model in terms of the metrics of parsimonious fit and the explanatory power. Venkatesh et al (2013) proposed UTAUT2 by extending UTAUT to a consumer context, and adding hedonic motivation, price value, and habit. Much of research (Chang, 2015, Raden, 2016, Jorge, et al., 2015) adopted UTAUT2 model to their studies.

Task-technology fit model (TTF) have applied on all kinds of research to study information technology and system including e-books. John (2013) explored the adoption of use e-books and found out that the adoption of e-books will be dependent on how academics perceive the fit of this new medium to the tasks they undertake as well as what added-value functionality is delivered by the information technology that delivers the content. Sununthar (2018) researched the adoption to use online library and found out that the model has an appropriate predictive power. Overall, many studies have made the empirical research through TTF model.

User satisfaction is one of the measurement variables of information system success. It is always used as dependent variable and surrogate measure of information system effectiveness (Djamila, 2017). Stone (2013) and Saleh (2014) have respectively adopted it to explain the continue use of information system and technology.

Radan (2016) applied the UTAUT2 model and TTF model into his study to explore the adoption of use e-books and get good model fit result.

Therefore, this study applied UTAUT2 model and TTF model and user satisfaction construct as a conceptual model as figure 1.

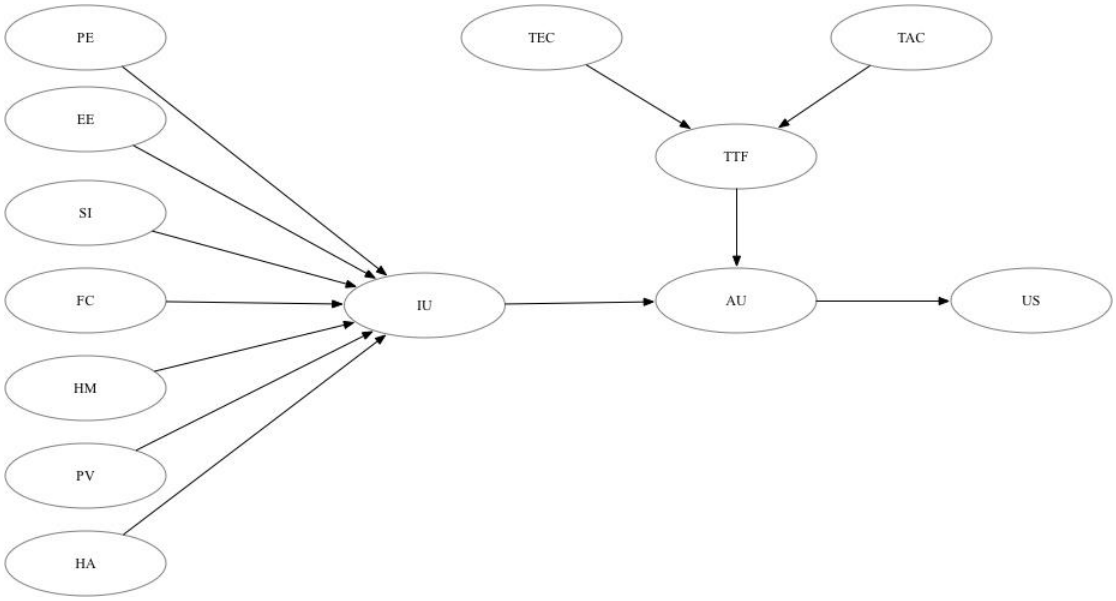

Figure 1 Conceptual Model

Note. PE, Performance Expectancy; EE, Effort Expectancy; SI, Social Influence; FC, Facilitating Conditions; HM, Hedonic Motivation; PV, Price Value, HA, Habit; TEC, Technology Characteristic; TAC, Task Characteristic; TTF, Technology Task Fit; IU, Intention to Use; AU, Adoption of Use; US, User Satisfaction

Methods

This study adopted UTAUT2 and TTF model and user satisfaction construct as a conceptual model. Constructs under UTAUT2 model were adapted from Vankatesh (2012). And

constructs under TTF model were adapted from John (2013). User satisfaction is one of the measurement variables of information system success. It is always used as dependent variable and surrogate measure of information system effectiveness (Djamila, 2017). All questionnaires were written in English with two translations including English to Chinese and Chinese to English. Each item was measured on a 5-point Likert scales where 1 represented "strongly disagree" and 5 being "strong agree".

Pre-research included an IOC test of the questionnaire and collected 30 questionnaires for reliability test. Data was collected from sample total of 257 university students from Sichuan 5 main universities include Sichuan University (SCU), Sichuan Agricultural University (SAU), Southwest Jiaotong University (SWJTU), University Of Electronic Science And Technology Of China (UESTC) and Southwestern University Of Finance And Economics (SWUFE). The main purpose of this research questionnaire was to measure the problems of Chinese university students in using or choosing whether to use E-books and if the user satisfaction of Chinese university students.

Results

The table 1 showed a good reliability with the composite reliability (CR) of all constructs are greater than 0.60 with ranging from 0.89 to 0.95 and Cronbach's alpha of all constructs are greater than 0.8 with ranging from 0.88 to 0.95. The table 1 showed the evaluation of the convergence validity is passed with the average variance extracted (AVE) values of all constructs are greater than 0.70 with ranging from 0.74 to 0.88.

Table 1 Standardized factor loading, construct reliability and average variance extract values of the measurements

Constructs	Items	Factor loading	CR	Cronbach's Alpha	AVE
Adoption of Use	AU1	0.88	0.90	0.90	0.83
	AU2	0.94			
	AU3	0.91			
Performance Expectancy	PE1	0.89	0.90	0.90	0.84
	PE2	0.92			
	PE3	0.93			
Effort Expectancy	EE1	0.92	0.93	0.93	0.87
	EE2	0.95			
	EE3	0.93			
Social Influence	SI1	0.88	0.89	0.88	0.74
	SI2	0.90			
	SI3	0.93			
	SI4	0.72			
Facilitating Conditions	FC1	0.87	0.91	0.90	0.78
	FC2	0.92			
	FC3	0.88			
	FC4	0.86			
Hedonic Motivation	HM1	0.93	0.93	0.93	0.88
	HM2	0.94			
	HM3	0.94			
Price Value	PV1	0.88	0.93	0.93	0.82
	PV2	0.92			
	PV3	0.92			
	PV4	0.90			

Table 1 (Con.)

Constructs	Items	Factor loading	CR	Cronbach's Alpha	AVE
Habits	HA1	0.90	0.92	0.90	0.77
	HA2	0.90			
	HA3	0.81			
	HA4	0.90			
Technological Task Fit	TTF1	0.88	0.93	0.93	0.83
	TTF2	0.93			
	TTF3	0.93			
	TTF4	0.91			
Technology Characteristic	TEC1	0.84	0.91	0.91	0.78
	TEC2	0.92			
	TEC3	0.88			
	TEC4	0.90			
Task Characteristic	TAC1	0.91	0.95	0.95	0.83
	TAC2	0.91			
	TAC3	0.93			
	TAC4	0.94			
	TAC5	0.87			
User Satisfaction	US1	0.91	0.91	0.91	0.84
	US2	0.93			
	US3	0.92			
Behavior Intention of Use	IU1	0.92	0.93	0.93	0.83
	IU2	0.92			
	IU3	0.93			
	IU4	0.88			

Hair (2013) suggested that composite reliability (CR) and Cronbach's alpha value shouled exceed 0.7 of each construct in order to confirm reliability. Henseler (2009) pointed out all loading must be higher than 0.70 and should delete the item which loading less than 0.4. The average variance extract (AVE) must higher than 0.50 in order to allow latent variable to explain more than half of the variance of its indicators (Fornell & Larcker, 1981).

Table 2 presented the values of the square root of AVE, indicating in bold diagonal, are greater than correlations between constructs (off-diagonal value) suggesting satisfaction of the discriminant validity of data (Henseler 2015).

Table. 2 Discriminant Validity: Fornell-Larcker Criterion (n=257)

Construct	AU	PE	EE	SI	FC	HM	PV	HA	TTF	TEC	TAC	US	IU
AU	**0.91**												
PE	0.6298	**0.91**											
EE	0.3531	0.3944	**0.93**										
SI	0.4737	0.5622	0.3341	**0.86**									
FC	0.5015	0.5649	0.4181	0.6573	**0.88**								
HM	0.3912	0.5561	0.3295	0.5065	0.6006	**0.93**							
PV	0.3333	0.4274	0.2776	0.4886	0.4771	0.5113	**0.9**						
HA	0.3690	0.3968	0.1286	0.4682	0.4785	0.4122	0.5149	**0.88**					
TTF	0.4415	0.4427	0.1922	0.5097	0.5476	0.4689	0.5533	0.7166	**0.91**				
TEC	0.3808	0.4363	0.2096	0.4819	0.4979	0.4902	0.6336	0.5637	0.7458	**0.88**			
TAC	0.3576	0.3737	0.0921	0.3851	0.3960	0.3297	0.4121	0.6457	0.6614	0.6060	**0.91**		
US	0.3566	0.4288	0.1986	0.3766	0.4160	0.4298	0.5566	0.5162	0.5727	0.6225	0.5395	**0.92**	
IU	0.4074	0.4539	0.2006	0.4138	0.4967	0.5058	0.5357	0.6064	0.6188	0.6176	0.5698	0.8186	**0.91**

Note: AU, Adoption of Use; PE, Performance Expectancy; EE, Effort Expectancy; SI, Social Influence; FC, Facilitating Conditions; HM, Hedonic Motivation; PV, Price Value; HA, Habits; TTF, Technological Task Fit; TEC, Technology Characteristic; TAC, Task Characteristic; US, User Satisfaction; IU, Behavior Intention of Use

Squared correlations; Root AVE in the diagonal;

Author's calculation

Table 3 Hypothesis test results

No.	Hypothesis Path	Result
H1 (a)	PE→IU	Supported
H1 (b)	PE→AU	Rejected
H1 (c)	PE→US	Rejected
H2 (a)	EE→IU	Rejected
H2 (b)	EE→AU	Rejected
H2 (c)	EE→US	Rejected
H3 (a)	SI→IU	Supported
H3 (b)	SI→AU	Rejected
H3 (c)	SI→US	Rejected
H4 (a)	FC→IU	Supported
H4 (b)	FC→AU	Rejected
H4 (c)	FC→US	Rejected
H5 (a)	HM→IU	Supported
H5 (b)	HM→AU	Supported
H5 (c)	HM→US	Supported
H6 (a)	PV→IU	Supported
H6 (b)	PV→AU	Supported
H6 (c)	PV→US	Supported
H7 (a)	HA→IU	Supported
H7 (b)	HA→AU	Supported
H7 (c)	HA→US	Supported
H8a (a)	TEC→TTF	Supported
H8a (b)	TEC→AU	Supported
H8a (c)	TEC→US	Supported
H8b (a)	TAC→TTF	Supported
H8b (b)	TAC→AU	Supported
H8b (c)	TAC→US	Supported
H9 (a)	TTF→AU	Supported
H9 (b)	TTF→US	Supported
H10 (a)	IU→AU	Supported
H10 (b)	IU→US	Supported
H11 (a)	AU→US	Supported

According to table 3, the UTAUT 2 constructs, performance expectancy, social influence, facilitating conditions, hedonic motivation, price value as well as habit had a significant effect on intention to use e-books. Effort expectancy was the only construct that found no significant effect on intention to use e-books. Task-Technology fit model also played a significant role on adoption of using e-books. Intention to use was a key driver on adoption of use e-books and finally affected on user satisfaction.

Discussion

This study found out that performance expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit were the main predictors on intention of use e-books. Task and technology characteristics positively influence on adoption of use and user satisfaction. Lastly, intention of use also significant effect on adoption of use and user satisfaction. Effort expectancy was not significantly to influence intention of use e-books.

Chang (2015) found out that performance expectancy, hedonic motivation, price value and habit were the main predictors on intention of use e-book. Effort expectancy, social influence and facilitating conditions were not significantly to influence intention of use e-books.
Raden (2016) found out that performance expectancy, effort expectancy, social influence, facilitating conditions and habit were the main predictors on intention of use e-books. Price value and hedonic motivation were not significantly to influence intention of use e-textbooks. Performance expectancy and habit had a significant effect on intention of use in line with all previous studies of intention to use e-books. (Raden, 2016, Chang, 2015, Hwang, 2014). Even if the research object is not an e-books, performance expectancy and habit played a significant role in the UTAUT2 model (Jorge, et al., 2015).
Hedonic motivation and price value had a significant effect on intention of use in this study. Chang (2015) get the same output with this study. However, a study focus on e-textbook (Raden, 2016) found out that hedonic motivation and price value is not important to influence the intention of use.
The outcome of social influence and facilitating conditions, which is significant to influence the intention of use e-books, was agreed with previous studies (Huang, 2014, Raden, 2016) include some study adopted UTAUT model (Voravickositt, 2017, Saleh, 2014). However, Chang (2015) hold a different predictive capacity on it, which proved that social influence and facilitating conditions were not significant to influence the intention of use e-books.
Effort expectancy did not play a significant role on intention of use e-books in line with majority of studies. (Huang, 2014, Chang, 2015). Voravickositt (2017) also point out that the students in Thailand have no enough information to judge the effort expectancy. In addition, some studies that did not focus on the acceptance get the different outcome that effort expectancy is significant (Saleh, 2014, Jorge, et al., 2015).
About the part of adoption of use e-books, there are less constructs has significant effect on it. Hedonic motivation, price value, habit paly a significant positive role on the adoption of use, which in line with previous studies of adoption of use e-books. (Chang, 2015). But it is not the same with the outcome from the study of Raden (2016), Raden found out that only habit has the significant effect on adoption of use e-books as the limitation of e-textbooks. What is more, Voravickositt (2017) point out that facilitating conditions also played a significant role on the adoption of use e-books.
The outcome of all the related previous study was the technology and task characteristic have significant effect on task-technology fit, which further significant influence the adoption of use (John, 2013, Sununthar V. 2018).
About the part of user satisfaction, hedonic motivation, price value, habit and task-technology fit have significantly effect on user satisfaction, which agreed with an outcome of continue use e-books study (Stone, 2013). Adoption of use plays a significant role on the user satisfaction, which in line with a study of mobile learning system (Saleh, 2014).

Theoretical Implication

As a mature and complete theory, the UTAUT2 model is highly explanatory for interpreting the intention analysis of users on technology choices. Combing the UTAUT2 model and technology task fit (TTF) model was more complete. This study found out the constructs of intention of use (R^2=0.712), adoption of use (R^2=0.477) and task-technology fit (R^2= 0.796) get good model fit, however, the user satisfaction (R^2=0.357) fit the model not well. Compared with the study of information technology UTAUT2 model fit (Viswanath, 2003), intention of use (R^2=0.74), adoption of use (R^2=0.52), the model fit of this study reached a close level. A study of mobile bank got the model fit, intention of use (R^2=0.534), adoption of use (R^2=0.667) and task-technology fit (R^2= 0.629) (Tiago O, et al 2014). In comparison,

the model of this study is insufficiently described for adoption of use, but the description of task- technology fit and intention of use is more reliable.

Practical Implication

The results of this study have a very reliable guiding significance for the production of e-books products and marketing strategies for manufacturers. From the discussion above, performance expectancy always play important role when consumer makes a decision to buy an e-books. Task-technology fit has a significant effect on the adoption of use e-books. Meeting the needs of university students for e-books functions and optimizing task adaptability are very basic requirements.

This study found that price value, hedonic motivation and habit not only has a significant impact on the intention of use, but also has a significant impact on adoption of use and user satisfaction. Facilitating condition played an important role to influence the intention of use. Therefore, manufacturers should pay more attention to match the habits of users and increase the pleasure of the product when manufacturing and focus on the issues involved to e-books related products and services, further, pricing strategy is critical in e-books sales.

Social influence has a negative impact on the university students' intention of use e-books. Manufacturers should pay more attention to the needs of university students, rather than pay attention to publicity.

Research Limitations and Future Research

From the perspective of model fitting, satisfaction was the weakest part of this model. The reason may be that construct satisfaction does not perfectly describe the psychological state of the user after using the e-books. Only explored the intentions and satisfaction of university students in Sichuan Province is another deficiency of this research. This study also did not reach a sufficient conclusion that can be extended to other regions. This study only focused on university students (including undergraduates, graduate students, and doctoral students) and did not fully describe the user's use of e-books. Among this study, the explorations of different professions and different reading contents were not sufficient.

Conclusion

This study found out that performance expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit were the main predictors on intention of use e-books. Task and technology characteristics positively influence on adoption of use and user satisfaction. Lastly, intention of use also significant effect on adoption of use and user satisfaction. To the best of authors' knowledge, this research model was considered the first to study in China, manufacturing companies and marketing companies could obtain this evidence to apply further product improvement and selling strategies in order to target the right product and sale channel. Young Chinese people are spearhead of technology mania and research can draw useful finding to feed industry for developing new innovation.

References

Alibaba Report, Young Chinese drive rise in reading books. Retrieved from www.chinadaily.com.cn/a/201901/10/WS5c36f6a5a3106c65c34e3be1.html.

Becker, B. 2015. "Ebooks in the Library: The Current State of Research." **Journal of Behavioral & Social Sciences Librarian** 34 (4): 230-233.

Chang, P., Sim, H., Yap, J., & Yin, S. 2015. **Factors Influenceing Behavioural Intention to Adopt Mobile E-books among Undergraduates: UTAUT2 Framework.** Bachelor Degree Graduation Research, University Tunku Abdul Rahman.

Djamila B. & Rachid C. 2017. "Modélization of User Satisfaction in IS research, Advances in Computing." **Fifth International Conference on Advances in Computing, Communication and Information Technology,** Novotel Zurich City, No.2, pp. 108-112.

Fornell, C. & Larcker, D. 1981. "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error." **Journal of Marketing Research** 18 (1): 39-50.

Hair, J., Anderson, R., Tatham, R. and Black, W. 2013, **Multivariate Data Analysis: Pearson New International Edition**. London: Pearson Education Limited.

Henseler, J., Ringle, C. & Sinkovics, R. 2009. "The Use of Partial Least Squares Path Modelling in International Marketing." **Advances in International Marketing** 20: 277-319.

Henseler, J. & Dijkstra, T. 2015. **"ADANCO 2.0", Composite Modeling.** Retrieved from www.compositemodeling.com.

Hsiao, C. & Tang, K. 2014. "Explaining undergraduates' behavior intention of e-textbook adoption." **Library Hi Tech** 32 (1): 139-163.

Hillesund, T. 2001. "Will e-books change the world?." **Journal of First Monday** 6 (10): 1-19.

Hwang, S., Kim, J., Lee, J., Hwan, B., Jeong, K., Pinto, M. & Kim, J. 2014. "Usage patterns and perception toward e-books: experiences from academic libraries in South Korea." **The Electronic Library** 32 (4): 473-492.

John, D. & Concepción, S. 2013. "Application of the Task-Technology Fit Model to Structure and Evaluate the Adoption of E-Books by Academics." **Journal of the American Society for Information Science and Technology** 64 (1): 48-64.

Nihayra L. 2014. **Application of the Theory of Planned Behavior to Low-Achieving Adolescents' Reading Behavior in Different Reading Contexts.** Master Thesis, University of van Amsterdam.

Raden, A. & Budi, S. 2016. "An Empirical Investigation of Student Adoption Model toward Mobile E-Textbook: UTAUT2 and TTF Model." in **Proceedings of the 2nd International Conference on Communication and Information Processing.** New York: Association for Computing Machinery, pp. 167-173.

Saleh, A. & Steve, D. 2014. "Mobile Learning-system usage: Scale development and empirical tests." **International Journal of Advanced Research in Artificial Intelligence** 3 (11): 31-47.

Spinak, E. 2016. **"E-Books-global market and trends-Part I: Print and digital publication in the global context."** Retrieved from blog.scielo.org/en/2016/06/22/ebooks-global-market-and-trends-part-i-print-and-digital-publication-in-the-global-context/#.XQR3Wy_kUWo.

Stone, R. & Lori B. 2013. "Students' expectation, confirmation, and continuance intention to use electronic textbooks." **Computers in Human Behavior** 29 (3): 984-990.

Sununthar, V. 2018. "Application of the Task-Technology Fit Model to Structure and Evaluation of the Adoption of Smartphones for Online Library Systems." **Journal of Science & Technology Asia** 23 (1): 39-56.

Tiago, O., Miguel, F., & Manoj, A. 2014. "Extending the understanding of mobile banking adoption: When UTAUT meets TTF and ITM." **International Journal of Information Management** 34 (5): 689-703.

Vassiliou, M. & Rowley, J. 2008. "Progressing the definition of e-book." **Library Hi Tech** 26 (3): 355-368.

Venkatesh, J., Thong, Y., & Xu, X. 2012. "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology." **MIS Quarterly** 36 (1): 157-178.

Venkatesh, J., Thong, Y., & Xu, X. 2013. “Unified Theory of Acceptance and Use of Technology: A Synthesis and the Road Ahead.” **Journal of the Association for Information Systems** 17 (5): 328-376.

Venkatesh, V. 2003. “User Acceptance of Information Technology: Toward a Unified View.” **MIS Quarterly** 27 (3): 425-478.

Voravickositt, P. 2017. **Understanding the relationship between users’ reading attitudes and behaviors, and e-book collection management in Thai academic libraries**. Doctors’ Thesis, University of Sheffield.

Wang, J. 2017. **What's reshaping China's reading market?** Retrieved from news.cgtn.com/news/7a596a4d33517a6333566d54/share_p.html.

Wen-Chia, T. 2012. “A study of consumer behavioral intention to use e-books: The Technology Acceptance Model perspective.” **Journal of Innovative Marketing** 8 (4): 55-66.

Wischenbart, R. 2011. **The Global eBook Market: Current Conditions & Future Projections**. Massachusetts: O'Reilly Media.