

The Study of Consumer Intention Toward Switch from Physical Book to e-book

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Abstract

The rapid development and improvement of network infrastructure, coupled with the increasing trend of new technology, is radically changing the way of book is created and distributed and further taking it into another stage As the traditional way of real book distribution evolves into electronic book or physical world (marketplace) to virtual world (market-space) This study is an extension of the technology acceptance model (TAM) by Fred Davis et al, (1989) TAM provides the two most influential factors that dictate the acceptance and usage level of new technology: the perceived usefulness, and perceived ease of use The modified model could be know as the integrated model of technology acceptance and is develop with six variables are computer self efficacy, switch benefits: perceived usefulness, ease of use and fashion and switch costs: time and habit that has a moderating effect on attitude toward switch and behavioral intention to switch. Two hundred respondents in Tainan, Taiwan participated in a survey. Using SEM and CFA analysis, results showed that the research fitted the data well Most of the hypotheses were supported.

Keywords: Technology Acceptance Model, Behavioral Intention, Switch Benefits, Switch Costs, Electronic Book, Switching Behavior .

1. INTRODUCTION

Nowadays every business competes in two worlds: a physical world (marketplace) and a virtual world (market-space). The growth of internet and evolution of multimedia technology have grown to electronic commerce (E-commerce) and offered a new business model using virtual system such as online technology (Rayport and Sviokla, 1996) Today's many physical of goods turned to visual market (see Table 1).

Table 1 Switching business models form physical to visual market

Market	Business model					
Physical market (Marketplace)	Shopping store	Bank	Bookstore	mail	Newspaper	Book
Visual market (Marketspace)	Online Shopping Store	Online Banking	Online Bookstore	E-mail	E-paper	E-Book

Source: Lee and Lanting (2010)

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The theory constructed in this study is consumer acceptance of new technology Technology Acceptance Model (TAM) was proposed to measure how users accept a new technology from their subjective perspectives (Davis, 1989; Straub et al. 1997; Van der Heijden, 2003; Luarn and Lin, 2005; Lee et al., 2007). Technology Acceptance Model was introduced by Davis in 1986. Davis argued that users' intention for using a new technology are determined by two major factors, perceived usefulness and perceived ease of use, as defined below: (1) Perceived usefulness (PU): The degree to which a person believes that using a particular system would enhance his or her job performance. (2) Perceived ease of use (PEOU): The degree to which a person believes that using a particular system would be free from effort. TAM theorizes by the direct and indirect effects of two system features: perceived usefulness and perceived ease of use affect to attitude towards usage and behavioral intention to accept visual market. (Devaraj et al., 2002; Chen et al., 2002)

In prior research has mainly emphasized on customer perspective ease of use and customer perspective usefulness affect to attitude toward switch and behavioral intention to switch visual markets As a result, business models switch is changing the way physical into visual market for example newspaper, in the traditional marketplace, new and information are provided to subscribers through physical delivery The publisher often creates the value for its subscribers by integrating content, context, and infrastructure However in market-space, the content of an on-line newspaper is less restricted and can come from single or multiple publishers (Rayport and Sviokla, 1996). Now the developments of technologies and societal trends, the behavior of competitors, customers and regulators, all within a changing legal, environmental also make people using electronic books instead of books What more the special characteristics of the internet have altered the rules for marketing The e-books firms can identify their customer needs more precisely and thus improve customer satisfaction as well as retention (Elofson and Robinson, 1998)

This study applies the Technology Acceptance Model (TAM) into switch benefits related to switch cost in order to verify the factors that influence the attitude toward switch and influence behavioral intention to adopt electronic-books (e-books) toward customers In this discussion people will not increase consume e-books only using TAM but also think about others such as skill to use (computer self-efficacy), fashion, time and habit On the other hand some people argue in these e-books, a product or service no longer needs to be physically present (David 2009) So it will have affected to accept using e-books. Switch benefit and switch cost is used frequently in business planning and decision support. However, the term itself has no precise definition beyond the idea that both positive and negative impacts are going to be summarized and then weighed against each other So these variables will measure the positive impacts and negative impacts to use e-book. Self-efficacy represents an important individual trait, which moderates organizational influences (such as encouragement and support) on an individual's decision to use computer This study applies computer self-efficacy because



e-books are the new technology when people using the new technology will have skill for using or the confident to use new technology, so this study applies computer self-efficacy to understand customers' skill

The purpose of this paper is therefore to investigating the attitude and intension toward switch form books to e-books and Integrating switch benefits and switch costs influences attitude and intention toward switch to accept e-books.

2. LITERATURE REVIEW

2.1 Electronic book (e-book)

An electronic books or e-books is a digital book, is an e-text that forms the digital media equivalent of a conventional printed book, sometimes restricted with a digital rights management system. An e-book, as defined by the Oxford Dictionary of English, is "an electronic version of a printed book which can be read on a personal computer or hand-held device designed specifically for this purpose"(A and Forbes, 2009). The e-books are a new information technology product that facilitates reading and acquisition of information It is a written work readable on the screen of a PC, a PDA (personal digital assistant), or a reader specifically designed for the purpose. It provides the same meaning as a conventional paper book (C-book) which stores and communicates knowledge through reading On the optimistic side, an E-book is superior to a C-book from diverse perspectives such as storage, transfer, delivery, and accessibility (Noorhidawati and Forbes, 2009)

2.2 The Technology Acceptance Model (TAM)

The Technology Acceptance Model has been applied and studied in a variety of areas specifically in MIS related field TAM is founded upon the hypothesis that technology acceptance and use can be explained in terms of a user's internal beliefs, attitudes and intentions. "The original TAM gauged the impact of four internal variables upon the actual usage of the technology. The internal variables in the original TAM were: perceived ease of use (PEU), perceived usefulness (PU), attitude toward use (A) and behavioral intention to use (BI). The original TAM used BI as both a dependent variable and an independent variable, with BI being used as a dependent variable to test the validity of the variables PU and PEU and as an independent variable when predicting actual usage illustrates the original TAM model" (Davis, 1989; Straub et al. 1997; Van der Heijden, 2003; Luarn and Lin, 2005; Lee ea. Al., 2007).

2.3 Cost-benefit analysis

The term cost benefit analysis is used frequently in business planning and decision support. However, the term itself has no precise definition beyond the idea that both positive and negative impacts are going to be summarized and then weighed against each other The



term also has no universally agreed spelling It is written as cost benefit, cost/benefit, or cost-benefit, for instance Because the term "cost benefit analysis" does not refer to any specific approach or methodology, the business person who is asked to produce one should take care to find out what is expected or needed (Ascott and Elizabeth, 2006) Cost benefit analysis attempt to predict the financial impacts and other business consequences of an action. All these approaches have the same structural and procedural requirements for building a strong, successful business case (Porter, 1966) In this research I identify switch benefits in 3 sections are perceived usefulness, perceived ease of use and fashion and switch costs in 2 sections are time and habit.

2.4 Computer Self- Efficacy

Computer self-efficacy (CSE) has been shown to play a role in a variety of computer dispositions and activities, including positive attitudes toward computers (Harrison and Rainer, 1992) CSE is defined as an individual judgment of one's capability to use a computer (Compeau and Higgins, 1995a). It is conceptualized as multileveled, that is, one can judge their computing ability at both an application-specific level and at a general level (Marakas et al., 1998) However, when people learn a new technology for instance, learning to create concept graph with a computer program, for which they have very limited corresponding personal or vicarious experiences to refer, they may search for relevancy between factors such as the task attributes or contextual conditions, and their more general experiences to make an assessment (Gist & Mitchell, 1992) As a result, it is important to understand how less context-specific and evolving task-specific experiences may affect the way people appraise self-efficacy in a given task (Bandura, 1977).

2.5 Attitude

The hypothetical construct that represents an individual's degree of like or dislike for everything namely an attitude. Attitudes can be positive or negative views of a person, place, thing, or event this is often referred to as the attitude object. People can also be ambivalent or conflicted toward an object, meaning that they simultaneously possess both positive and negative attitudes toward the item in question (Rogers, 2003). Most attitudes are the result of either direct experience or observational learning from the environment It also means you have a weird problem in yourself Attitudes can be changed through persuasion and should understand attitude change as a response to communication. Conceptualization of attitude was assessed and compared with affective and cognitive. (Fishbein & Ajzen, 1974)

2.6 Behavioral intention

The behavioral intention is a verbal indication or typical behavioral tendency of an individual Behavioral intention (BI) components: attitude towards the behavior and subjective



norm Attitude towards has been found to predict by salient beliefs about behavior show that behavior will result in a given outcome Subjective norm has been found to predict about what relevant other people would advise (Miller 2003).

2.7 Interrelationships among variables

This part will describes the research outlines and the referencing some key element this is influencing the likelihood of users to accept technology (TAM) –Computer self-efficacy (CSE) refers to “an efficacy individual’s judgment of across multiple computer domains.” It thus refers to perception of ability to use a computer in general (without regard to a particular computing task, application, or environment). The influence of CSE on perceived ease of use, and perceived usefulness has been meager (Hung 2003; Lopez 1997) and fewer studies have investigated the direct effect of CSE Past research reported mixed results on the impact of CSE on TAM variables; some studies found that CSE had a significant effect on ease of use (Agarwal and Karahanna, 2000) but others reported non-significant effects

Results pertaining to the impact of perceived usefulness have followed a similar pattern, with some studies reporting significant positive relationships and other studies reporting no significant, negative relationships. The skill for taking the mobile services as a similar example to the digital service, the behavior and trend could be well matched. The motives of computer self-efficacy for using mobile services and taken from teens in Norway which reveals the importance of values of fashion and style (Ling, 2004). Therefore:

H1 : Computer self-efficacy has positive perspective on switch benefit

H1.1 : Computer self-efficacy has positive perspective on perceived usefulness

H1.2 : Computer self-efficacy has positive perspective on ease of use

H1.3 : Computer self-efficacy has positive perceived on fashion

Self-efficacy judgments are held to have a substantial influence on the emotional responses of the personality Personality or habit will tend to prefer and enjoy behaviors they feel they are capable of performing and to dislike those they do not feel they can successfully master Time/convenience: It may refer to the loss of the time and inconvenience incurred due to the delays of receiving the payment or the difficulty of navigation (finding appropriate services and hyperlinks). Two leading causes of dissatisfying online experiences that may be thought of as a time/convenience include a disorganized or confusing Web site and pages that are too slow to download (Forsythe and Shi, 2003) It may also be related to the length of time involved in waiting the technology or learning how to operate e-book.

H2 : Computer self-efficacy has negative perspective on switch cost

H2.1 : Computer self-efficacy has negative perspective on time



H2.2 : Computer self-efficacy has negative perspective on habit

Computer self-efficacy (CSE) refers to individuals' judgment of their capabilities to use computers in diverse situations (Compeau and Higgins 1995; Marakas et al. 1998) Computer self efficacy is a new factor which discussed in the TAM I believe that could be influential on the goal-directed services, such as downloading information to e-book However before the intention of downloading is being formed, a positive attitude should be accumulated in same extent to form the latter (Hsieh, 2010).

H3 : Computer self-efficacy has positive perspective on attitude toward switch

There are two main types of benefits, which can be categorized as direct and indirect advantages. Direct advantages refer to immediate and tangible benefits that customers would enjoy by using e-book Indirect advantages are those benefits that are less tangible and difficult to measure (Lee, 2008) According to the TAM, both the individual's attitude toward using the technology and perceived usefulness are viewed as determinants of behavior's intention to use the technology (Davis et al, 1989). Through a simple point of view, a user is unwilling even to try new technology given the fact that it is heard to be not user-friendly, time consuming Therefore it is vital to design technology that is easy to learn with degree of difficulties and complexities at the medium level for new users to overcome Most of review of the literature revealed that typically, in studies where the ease of use positive effect to behavioral intention path is non-significant (Gentry and Calantone, 2002) The effect of ease of use on behavioral intention is mediated through attitude toward using this technology In current study the hypothesis usefulness influence attitude

H4 : Switch benefits will have positive effect on the attitude towards switch

H4.1 : Perceived usefulness will has positive effect on the attitude towards switch

H4.2 : Perceived ease of use will has positive effect on the attitude towards switch

The core essentials of attitudes are that they are evaluative in nature (Fishbein and Ajzen, 1975; Fiske and Taylor, 1991). Being a superset of consciousness, attitudes also contain cognitive, affective and behavioral aspects (Rosenburg and Hovland, 1960; Zimbardo et al., 1977), even though these need not be consistent with each other (Zanna and Rempel, 1988). Parks et al. (2005) found that for hedonistic products the emotional response to the product was a powerful antecedent to evaluations of the product and subsequent attitudes. This can also apply to the consumption of fashion, often perceived as a hedonistic product, given the strong relationship between attitudes and behavior (Fiske and Taylor, 1991; Zimbardo et al.,



1977) This would then imply that, within the younger generation at least, attitudes towards e-book have a positive affect, the following hypothesis is stated:

H4.3 : Fashion will has positive effect on the attitude to wards switch

Steven et al. (1999) reported on the importance of time and habit considerations and found that it was a significant predictor of technology product buying behavior. The current research proposes that some consumers are very time oriented, concerned about spent implementing, learning how to use and their attitude of personality that want to accept new technology. These time-conscious consumers likely guard against the possible loss of time risk, and are less likely to adopt an e-service that they consider to have high switching, set up and maintenance costs (Featherman and Pavlou, 2003). It is therefore hypothesized that:

H5 : Switch costs will have negative effect on the attitude towards switch

H5.1 : Time will has negative effect on the attitude towards switch

H5.2 : Habit will has negative effect on the attitude towards switch

Attitudinal research (Fishbein and Ajzen, 1975; Bobbitt and Dabholkar, 2001) suggests that attitudes will have a strong, direct and positive effect on intentions. This relationship between attitude and intention is fundamental in various attitudinal research and has been supported in a wide variety of settings (Bagozzi, 1981; Sheppard and Warhaw, 1988)

H6 : Attitudes towards switch have positive affect behavioral intentions to switch

3. RESEARCH DESIGN AND METHODOLOGY

3.1 Conceptual Framework

This study developed a research model by modifying TAM with other variable. The fundamental elements of the model are the TAM constructs proposed. TAM has been used extensively in the existing literature to explain and predict consumer behavior intention to switch to e-book TAM explains how actual adoption is influenced by intention to use, which is in turn influenced by consumer's attitude towards usage. Perceived use and perceived ease of use directly affect the consumer's attitudes (Davis 1986)

By applying the original model into new model I further integrate the new variables are computer self efficacy, switch benefits and switch costs that has a moderating effect on attitude toward switch and behavioral intention to switch. The framework involves the three new variables related to computer self-efficacy; the perceived attributes of new technology affect computer self-efficacy to e-book and subsequently affect the actual adoption of new technology within a social system This study applies the Technology Acceptance Model



(TAM) into switch benefits related to switch cost in order to verify the factors that influence the attitude toward switch and influence behavioral intention to adopt e-book toward customers in Taiwan. Based on the theoretical framework the following conceptual model has been developed and hypotheses are stated to empirically test the expected relationships between the variables(see Figure 1).

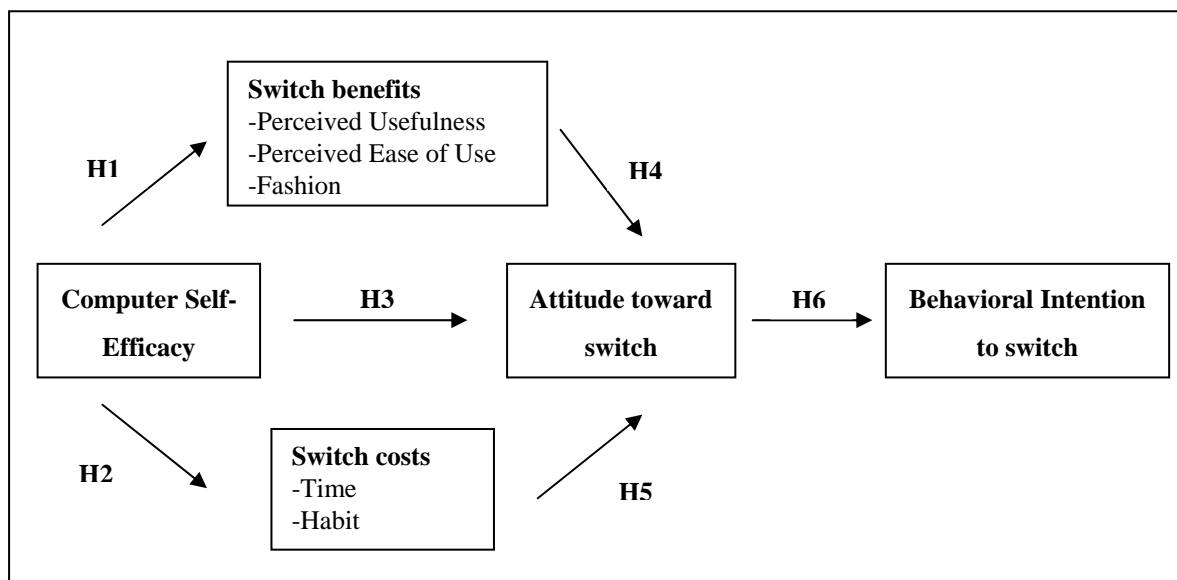


Figure1 Conceptual model and proposition development

3.2 Measurement Development

Based on (Davis et al, 1989) arguments, the study integrated TAM with several new variables For all concepts and variables, I asked respondents to rate their level of agreement with statements using seven-point Likert Scale ranging from “strongly disagree” 1 to “strongly agree”7 Each of the questions was designed with specific purpose (1) Computer self-efficacy (2) Switch benefits: perceived usefulness (PU), ease of use (EU) and fashion (3) Switch costs: time and habit (4) Attitude toward switch (5) Behavioral intention to switch. The first part of the questionnaire includes measurement of these constructs The second part includes background questions such as age, gender, education, income, and occupation

The term self-efficacy was soon extended to particular domains, including the use of computers. Compeau and Higgins (1995) defined computer self-efficacy as “a judgment of one’s capability to use a computer” and 4 tools are designed for measurement computer self-efficacy.

Perceived usefulness is defined by Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance" (Davis, 1989) I designed four to measure this construct Perceived ease-of-use is defined as "the degree to which a person believes that using a particular system would be free from effort" (Davis, 1989) Thus, total four tools are designed for measurement the ease of use.



Fashion, a general term for the style and custom prevalent at a given time, in its most common usage refers to costume or clothing style (Bakewell et al, 2006) This linguistic switch is due to the fashion plates which were produced during the industrial revolution, showing the latest designs For a broad cross-cultural look at clothing and its place in society, refer to the entries for clothing, costume and fabrics (Kaiser, 1997) Hence, total four tools are designed for measurement this dimension.

The current research similarly proposes that some consumers are very time oriented and concerned about potential risks of “wasting time” spent implementing, learning how to use, and troubleshooting a new e-service (Featherman and Pavlou, 2003) This is four tools to measure about time.

Habit the tendency toward an act that has become a repeated performance, relatively fixed, consistent, easy to perform, and almost automatic. Once learned, habits may occur without the intent of the person or may appear to be out of control and are difficult to change (Lloyd, 1996); therefore we design threes to measure about habit

Attitude toward is defined as the personal tendency of consumers to seek compensation from the firm (Richins, 1980) This attitude is conceptualized as the overall affect of the “goodness” or “badness” to sellers and is not specific to a specific episode of dissatisfaction (Singh and Widing, 1991). Hirschman (1970) posited that voice behavior is partly dependent on the ability and willingness of the consumer And have four tools to measure it in term.

Ajzen (1975) described that behavioral intention are “assumed to capture motivational factors that influence a behavior” and can also be a measure of how much effort someone is willing to exert when performing a behavior.

The measures for all research constructs please see Appendix Table A.1

3.3 Sampling

To test the research model, a survey was administered to either in undergraduate students or MBA students enrolled in Tainan Due to timing, return rate and cost concern, survey was only conducted inside the university rather than public A total of 250 surveys were collected 200 usable surveys were returned which resulted in an 80% response rate The survey was handed out through classroom and computer lab in person. The questionnaire consisted of variable factors affecting the behavioral intention to switch to e-book and questions that were related to background information. Use seven-point Likert scales ranging from “strongly agree” to “strongly disagree” were used as a basis of questions. This scale were used in previous TAM-extension studies (i.e. Tan and Teo, 1999; Wang *et al.*, 2003).



4. DATA ANALYSIS AND RESULTS

4.1 Sample Characteristics

From the effective 200 questionnaires, the demographic components of gender, age, education, monthly income, favorite type of book, uses e-book, frequency of using e-book and purposes to use e-book. The gender among the subjects, there were higher percentages of female than male. The largest population consists of subjects at range 19-25 with 61.6%. The groups of 26-30, 31-35 and 18 or under and very few respondents are age 36 or over. The majority of the respondents fell into education of master degree which coincides with the target user group of e-book.

Convenience sampling is a non-probability method. This means that subjects are chosen in a nonrandom manner. To avoid the non-response bias, a test for non-response bias was conducted using two responding subsamples: early and late respondents (Armstrong and Overton, 1977; Chang and Chen, 2008). These two groups were correlated on the sample characteristics of age, work experience and position level. The result indicates that there is no significant systematic non-response bias in the respondent sample, suggesting that the respondent sample was a random subset of the sample frame.

4.2 Validity and Reliability Analysis

4.2.1 Goodness of fit statistics

The measurement model has 8 latent variables (dimension). Within each latent variable, there range 3 to 4 manifest variables (questionnaire) to support the validity. The total number of manifest variables in the research is 30. In the overall, the dimension and questionnaire are support each other. In table 2 show the result model fit of CFA.

Table2 CFA Test Result

<i>Fit indexes</i>	<i>Result</i>
χ^2	674.308
$\chi^2 / (\text{degree of freedom})$	1.813
GFI	0.809
AGFI	0.761
RMSE	0.064
NFI	0.846
CFI	0.923
RMR	0.762
RFI	0.795
PNFI	0.802
PGFI	0.779



4.2.2 Validity

4.2.2.1 Convergent Validity

Campbell and Fiske (1959) said the convergent validity is when in the presence of other items for other constructs the items in a given construct move in the same direction and thus are highly correlated. Convergent validity is assessed by average variance extracted (AVE) for a construct is larger than 0.5 (Fornell and Larcker, 1981). For the result (shown in the Appendix Table A.2) the convergent validity overall are consistent with the dimension and questionnaire. They support each other but only two questions which not be consistent with dimension are Habit1 and Habit3. In this research I think which dimension not support with the question because they do not think using e-book will change their habit.

4.2.2.2 Average variance extracted (AVE)

Average variance extracted (AVE) refers to the amount of variance captured by the construct versus the amount due to measurement error. It has been suggested that AVE should be greater than 0.50 to justify using a construct (Barclay, Thompson, & Higgins, 1995). Table 3 shows AVE of 8 constructs in the revised measurement model. AVE ranges from 0.37 to 0.71. Moreover, the AVE of each construct is all above its square correlation with other constructs, only one is 0.37 in habit. This measurement model indicates a high degree of convergent and discriminant validities.

Table3 The Value of AVE

<i>Latent Variables</i>	<i>AVE</i>
Computer self -efficacy	0.7105
perceived usefulness	0.6003
Ease of use	0.6593
Fashion	0.6488
Time	0.5712
Habit	0.3738
Attitude toward switch	0.7058
Behavioral intention to switch	0.6932

4.2.2.3 Discriminant Validity

Discriminant validity refers to items of constructs that theoretically should not be related to each other but in fact are observed to not be related to each other (Campbell & Fiske, 1959). Discriminant validity is assessed by the measure that the AVE of each construct should be larger than its square correlation with other constructs (Fornell and Larcker, 1981). As a result of discriminant validity (shown in the Appendix) overall are significant. It is only 5 dimensions are not significant (shown in the Appendix A.3).



4.2.3 Evaluation of the Reliability

For consistency, the definition of variables was carried out in the same way. Each of questions of the variables was submitted to a principal component analysis in order to verify the scale's uni-dimensionality (Netemeyer, Bearden, & Sharma, 2003). Scale reliability is a way to measure the confidence reliability. At this time, the most often way to check the reliability of the measurements is to use composite reliability (C.R.) to do the testing. Wortzel (1979) stated that if the C.R. values ranged between 0.73 and 0.91, exceeding the 0.7 threshold commonly suggested for exploratory research, were considered a high accuracy. If the C.R. values observed, our instrument had exhibited adequate reliability. Construct reliability ranges from 0.71 to 0.90, and this measurement model indicates a high degree of reliability.

Table4 Reliability Test Result

<i>Latent Variables</i>	<i>Composite Reliability</i>	<i>Number of questions</i>
Computer self -efficacy	0.9073	4
perceived usefulness	0.8546	4
Ease of use	0.8850	4
Fashion	0.8805	4
Time	0.7961	3
Habit	0.7182	3
Attitude toward switch	0.9056	4
Behavioral intention to switch	0.9002	4

4.3 Structural Model Analysis (SEM)

Validities should be relatively acceptable since the various parts of questionnaire were all adapted from the literature and have been reviewed carefully by practitioners. Next, confirmatory factor analysis in AMOS software was used to analyze construct validities (Wu and Chen, 2005). The literature suggested that, for a good model fit, chi-square/ degrees of freedom (X^2/df) should be less than 3, adjusted goodness-of-fit index (AGFI) should be larger than 0.8, goodness-of-fit index (GFI), normed fit index (NFI), and comparative fit index (CFI) should all be greater than 0.9, and root mean square error (RMSE) should be less than 0.10 (Henry and Stone, 1994). The purpose of AMOS measures it to judge whether the theories can explain from the observed data. The results are showed in the table 5 below.

Table5 Model fit summary

<i>Fit indexes</i>	<i>Result</i>
X^2	694.019
$X^2 / (\text{degree of freedom})$	1.705
GFI	0.814
AGFI	0.774
RMSE	0.030



<i>Fit indexes</i>	<i>Result</i>
NFI	0.844
CFI	0.928
RMR	0.065
RFI	0.821
PNFI	0.738
PGFI	0.726

The value of GFI of this study was 0.814 is much closer to recommended value (0.9) and AGFI was 0.774 is also much closer to recommended value (0.8) The value of Chi-square is relatively large which could lead in falsifying the conclusion of lack of fitness of the model However, due to the large sample size, it is very often to have a large value of Chi-square The overall results show that the model belongs to goodness of fit.

The hypotheses are all supported The detailed discussion of the results will be presented by the order of the antecedents of behavioral intention to switch, attitude toward switch, as well as the relationships among switch benefits: perceived usefulness PU, ease of use EU (TAM) and fashion, switch costs: time and habit and computer self efficacy.

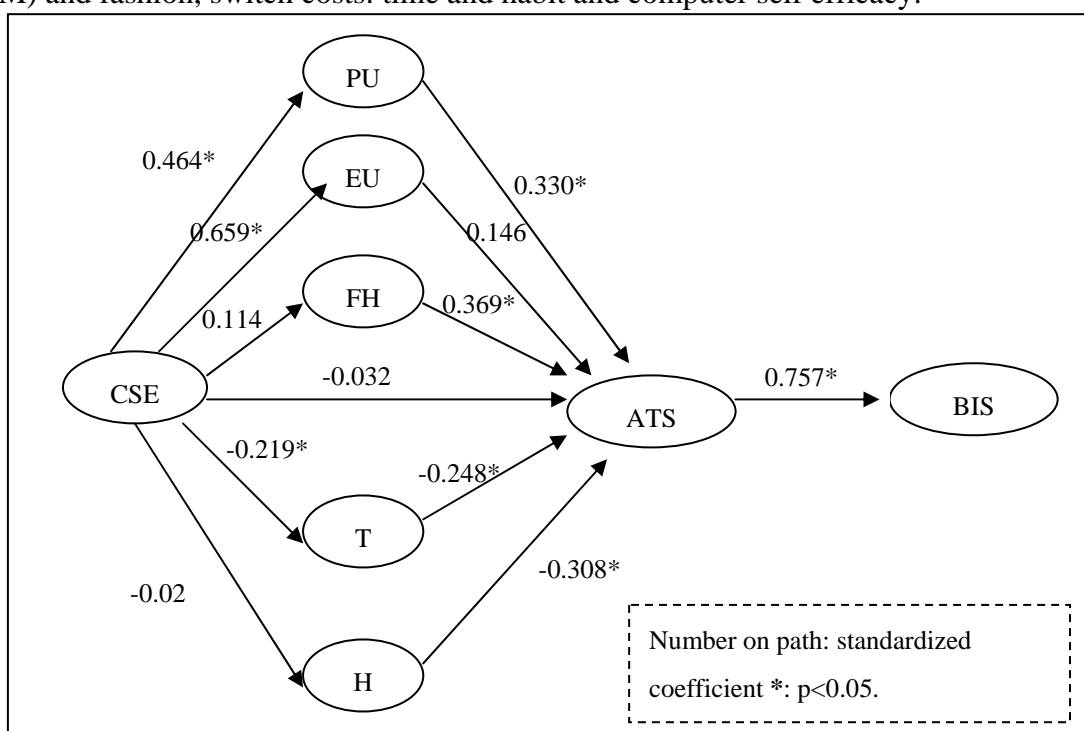


Figure2 Standardized solution of the structural model



5. CONCLUSIONS

5.1 Discussion

Most of hypotheses were supported as expected While the empirical results of the study provide some supports for the overall structure, they also provide insights into what influence specific believes about the target technology The new scales were develop, and refined in a several step process This is the first known study to have tested TAM in a consumer context where a hedonic factor, computer self efficacy, switch benefits: perceived usefulness, ease of use and fashion and switch costs: time and habit, attitude toward switch and behavioral intention to switch The implicit components are combined to obtain significant results

The facts that ease of use was not influenced on the attitude towards switch, Computer self-efficacy has not positive perceived on fashion, Computer self-efficacy has not positive perspective on habit and Computer self-efficacy has not positive perspective on attitude toward switch, the assessments levels are different than the hypotheses For EU that it was not positive perspective on attitude toward switch because e-books it is not easy to use the program of e-books some also complicate and I could say that the possible do not seem to pose a negative for the survey group Another possible explanation is that respondents feel they have the ability to overcome. Some researchers have suggested that one's attitude of using a system would mediate the relationship between usefulness and behavioral intention The rational behind is to incorporate attitude of the people develop into intention to engage in behaviors toward which they have positive attitude Childers et al., (2001) found supporting evidences that for the usefulness to have positive relationship to attitude.

5.2 Theoretical Contributions

Based on the theory of technology acceptance model (TAM) Technology Acceptance Model (TAM) was proposed to measure how users accept a new technology from their subjective perspectives (Davis, 1989; Straub et al. 1997; Van der Heijden, 2003; Luarn and Lin, 2005; Lee et al., 2007) TAM is an effective model that measures users' subjective acceptance of information technology (Agarwal and Karahanna, 2000; Chau and Hu, 2001; Lee, 2006; Yoon, et al., 2008)

In previous research have continuously expressed their interest in applying TAM to virtual markets (Featherman and Fuller, 2003; Wu and Chen, 2005; Yoon et al., 2008), in examining the acceptance and usage of virtual markets, the study argues that the research on TAM often fails to consider the potential effect of physical market TAM offers a rudimentary framework in these cases because the environment of virtual market is not the default system being used in the first place. This raises the issue of the difference between usage and switch In the context of technology acceptance, usage pertains to the utilization of technology to perform a certain task (Autzen, 2007), while switch refers to the tendency or intention to exchange or shift from one method over the other (Ganesh, Arnolds, and Reynolds, 2007).



However, these prior researches mostly focus on the features of the new technology itself, such as its PU, PEOU, or on web interface features (Hausman and Siekpe, 2009), or on social perspective aspect, such as trust and subjective norms (Bhattacherjee, 2001; Chau and Hu, 2001; Featherman and Fuller, 2003)

Table6 Summary of Research Contributions

Aspect	Prior research’s contribution to TAM literature	This study’s contribution to TAM literature
Variables included	TAM-related Variables, PU, PEOU, or on web interface features (Hausman and Siekpe, 2009), or on social perspective aspect, such as trust and subjective norms (Bhattacherjee, 2001; Chau and Hu, 2001; Featherman and Fuller, 2003).	TAM- related variables, Computer Self Efficacy, Switch Benefits: Perceived Usefulness, Ease of Use and fashion and Switch Costs: time and habit.
Focus	PU, PEOU	Switch Benefit: Perceived Usefulness, Ease of Use and fashion and Switch Cost: time and habit.

This study contributes to theoretical development switch benefit and switch cost influence to attitude toward switch and behavioral intentions to switch of consumers in technology acceptance switch from physical books to e-books. This study focus on the switch benefit and switch cost. We found that computer self efficacy, switch benefits and switch costs, have influence to transfer their attitude toward switch not only PU and EU. Therefore, they will not emphasize only PU and EU because others variables also have affect to attitude and intention to switch from the traditional or real books to e-books. After the consumer has the intention to switch, they will switch their behavior. Also takes into account the role of the real books in the future use of e-books. The variables concerning the use of real books were used to determine the behavioral intention toward switch to e-books. This has proved to be crucial since individuals’ behavior toward switch could be partly determined by factors associated with real books.

5.3 Management Implications

Understanding what satisfies customers’ needs offers scholars and practitioners continuously and increasingly important challenges. By integrating important intention-based theoretical perspectives, TAM we expect to provide meaningful insights in a more comprehensive manner that jointly predicts user acceptance of e-books This could be especially valuable for university students to study and research.

These findings might have educational implications for the implementation of e-books. Our research results revealed that computer self efficacy, switch benefits: perceived usefulness and fashion and switch costs: time and habit, have influence to transfer their attitude toward switch and after that they also have positive influence to behavioral intentions



to switch. However, in ease of use, they have no influence to transfer their attitude toward switch. Thus, we can emphasize 'ease of use' when they market a technology that is hedonic or for personal use. On the other hand, if the technology is utilitarian, we should try to convince users that it is of value of e-books.

5.4 Limitations

In the methodology section, I presented the procedure and measure applied in this study. In general, all theoretical concepts are well founded in the prior research. Thus, the construct validity is considered acceptable. Furthermore, the factor analysis showed that the measures were reliable from the sufficiently large sample. However, this model was tested with a sample of undergraduate students or MBA students in Tainan. Research that tested this model in other countries would provide valuable information to marketers and consumer researchers. On the other hand, testing the sample size in more diverse dimension or broader range of people could also provide more significant and less biased information. For example, it would be insightful to compare results obtained from a sample of adults in collectivism country versus ones obtained from adults in a more individualism country. Also, it would be more accurate to test other pools of people whose education levels and general knowledge are differed with just undergraduate students or MBA students.

The results are also more biased taken from the relative young adopters of users. I argue that the findings may also be transferred to similar setting and technology but a different result could obtain. There are no particular campaigns or general marketing being used to influence the sample. The sample could be educated from the advertisements to pose a prior positive attitude.

sample could be educated from the advertisements to pose a prior positive attitude or negative attitude for our target of research.



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APPENDIX :

TableA1 Measurement for all research constructs

Construct	Item	Scale Type	Adapted measure and source
TAM model			
Computer self - efficacy	<ol style="list-style-type: none"> 1. I feel confident about using computer. 2. I feel confident about learning how to use computer even if I have never used such a system before. 3. I feel confident getting the software up and running. 4. I feel confident using the computer to write a letter or essay. 	Seven-point scale: Strongly disagree (1) to strongly agree (7)	Adapted from Khorrami (2001)
perceived usefulness (PU)	<ol style="list-style-type: none"> 1. Using e-book would enhance my effectiveness. 2. I would find e-book useful. 3. Using e-book would improve my performance in computer skill. 4. Using e-book would increase my productivity. 		Adapted from Davis et al., (1989); Venkatesh and Davis (2000); and Moon and Kim (2001)
Ease of use (EU)	<ol style="list-style-type: none"> 1. It is not hard to learn how to operate e-book. 2. It is easy for me to become skillful at using e-book. 3. It is very easy to scroll the e-book. 4. E-book is easy to control and understand. 		Adapted from Davis et al., (1989); Venkatesh and Davis (2000); and Moon and Kim (2001)
Fashion	<ol style="list-style-type: none"> 1. I am interested in e-book because of fashion. 2. I like design and style of e-book. 3. If I see other people using e-book I want to use it. 4. Using e-book is fashionable. 		Adapted from Pentecost & Andrews (2009)
Time	<ol style="list-style-type: none"> 1. It would take me lots of time to learn how to use e-book. 2. Using e-book it wastes my time. 3. Using e-book would lead to a loss of convenience of me because I would have to waste a lot of time fixing the program. 		Adapted from Featherman and Pavlou (2003)
Habit	<ol style="list-style-type: none"> 1. I am in the habit of using real book. 2. I think that translate to e-book it is very trouble. 3. If nothing is available I will still use real book. 		Adapted from Lloyd (1996)
Attitude toward switch	<ol style="list-style-type: none"> 1. I think it is good for me to switch from real book to e-book. 2. In my view, switching from real book to e-book is a wise idea. 3. In my opinion, it is desirable to switch from real book to e-book. 4. I feel that switching from real book to e-book is pleasant. 	Seven-point scale: Strongly disagree (1) to strongly agree (7)	Adapt from Davis et al., (1989); Venkatesh and Davis (2000); and Moon and Kim (2001)
Behavioral intention to switch	<ol style="list-style-type: none"> 1. I intend to switch from real book to e-book for download books that I want. 2. I intend to switch form real book to e-book for using the peer to peer software or website to download the e-book because it is free. 3. I intend to continue to switch from real book to e-book to download book in the future. 4. I will strongly recommend others to use e-book replace real book. 		Adapt from Davis et al., (1989); Venkatesh and Davis (2000); and Moon and Kim (2001)



TableA.2 Convergent validity result

Questionnaire←Dimension	Estimate
Cse4←CSE	0.763
Cse3←CSE	0.865
Cse2←CSE	0.895
Cse1←CSE	0.843
Pu4←PU	0.750
Pu3←PU	0.587
Pu2←PU	0.841
Pu1←PU	0.887
Eu4←EU	0.826
Eu3←EU	0.833
Eu2←EU	0.870
Eu1←EU	0.710
F4←FH	0.810
F3←FH	0.862
F2←FH	0.751
F1←FH	0.795
T3←T	0.852
T2←T	0.802
T1←T	0.587
H3←H	0.470
H2←H	0.848
H1←H	0.426
Ats1←ATS	0.831
Ats2←ATS	0.833
Ats3←ATS	0.862
Ats4←ATS	0.834
Bis1←BIS	0.854
Bis2←BIS	0.829
Bis3←BIS	0.871
Bis4←BIS	0.773



TableA.3 Discriminant validity

	Limited chi-square (A)	Unlimited chi-square (B)	(A) – (B)	P-Value
CSE&PU	72	53.1	18.9	***
CSE&EU	80.5	74.5	6	***
CSE&FH	85.0	40.3	44.7	***
CSE&T	136.4	38.9	97.5	***
CSE&H	110.8	45.7	65.1	***
CSE&ATS	93.2	52.9	40.3	***
CSE&BIS	76.8	49.1	27.7	***
PU&EU	103.3	97.0	6.3	***
PU&FH	65.3	63.2	2.1	+
PU&T	139.1	85.4	53.7	***
PU&H	112.4	50.2	62.2	***
PU&ATS	54.1	48.4	5.7	***
PU&BIS	55.9	54.3	1.6	+
EU&FH	71.3	56.2	15.1	***
EU&T	118.0	20.9	97.1	***
EU&H	121.7	54.2	67.5	***
EU&ATS	58.4	44.0	14.4	***
EU&BIS	64.6	56.2	8.4	***
FH&T	43.5	29.7	13.8	***
FH&H	74.6	42.5	32.1	***
FH&ATS	23.9	22.1	1.8	+
FH&BIS	39.8	37.7	2.1	+
T&H	29.9	14.9	15	***
T&ATS	67.0	37.4	29.6	***
T&BIS	97.3	48.0	49.3	***
H&ATS	119.9	59.5	60.4	***
H&BIS	110.9	45.4	65.5	***
ATS&BIS	71.7	71.5	2.2	+

P⁺<0.1、P* <0.05、P**<0.01、P***<0.001

