

Title

Relationship Inertia in the Technology Acceptance in Internet Banking

Structured Abstract

Purpose

We seek feasible strategies to draw customers into a state of relationship inertia to diminish the hazard of losing customers in the internet banking.

Design/Methodology

We utilize the LISREL model to examine cause and effects relationship among inertia, switching cost, service convenience, and part of technology acceptance model (TAM). We employ quota sampling method to survey five hundred and thirty-three customers from Taiwan's top 14 financial companies, in terms of net financial investments, on the basis of printed and internet questionnaires.

Finding

Perceived usefulness in internet banking can mainly achieve inertia of customers from the channel of service convenience.

Research limitations/Implications

This paper considers with only one spot investigation, rather than a longitude multi-time survey.

Bank managers can promote perceived usefulness and ease of use at the same time to enhance the relationship inertia of customers, when customers are using Internet banking.

Practical implications

The switching cost is supposed to appear after the long usage and not discovered at the initial time period. Then, the invisible switching cost is supposed to achieve a certain level of opportunity cost to relock the customers.

Social implications

In addition, if firms want to increase the sense of trust of customers, they may consider the security independently. The perceived credibility is an important key to customers but not accurate related to switching cost and service convenience.

Originality/ Value

Relationship inertia between internet banking and customers in the internet banking industry is firstly investigated in this paper.

Relationship Inertia in the Technology Acceptance in Internet Banking

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ABSTRACT: This study utilized the concept of customer relationship management to investigate the cause and effect relationship among inertia, switching cost, service convenience, and a technology acceptance model (TAM). Five hundred and thirty-three customers of Taiwan's top 14 financial companies, in terms of net financial investments, are selected on the basis of printed and internet questionnaires; they constitute the samples of this paper, selected by the quota sampling method. The target respondents are people who have Internet banking accounts with these financial service companies. The empirical results of the LISREL model indicate positive relationships to the targeted hypotheses, namely, the improved attitude to technology acceptance indirectly enhances the relevance of switching cost and service convenience to relationship inertia. The best approach suggested is that perceived usefulness achieves relationship inertia due to positive service convenience. In conclusion, the managerial implications of this paper could provide appropriate strategies for developing and executing efficiency in Internet banking with a view to improving customer relations management.

KEYWORDS: inertia; switching cost; service convenience; technology acceptance model (TAM)

Introduction

This research highlights the causal relationship among inertia, switching cost, service convenience, and the technology acceptance model (TAM). Relationship inertia can be viewed as a critical factor in many industries. The importance of this topic has become more evident in recent years in Taiwan's financial services industry because of the increasing potential of virtual platforms for a variety of collaborative business activities (Shen and Eder, 2009).

Relationship inertia between Internet banking and customers in the financial services industry is worth investigating. Many scholars are attracted to this subject because a key driver behind continued use of a B2C web site is inertia (Chechen et al., 2006); hence, our paper seeks to explore this. Furthermore, inertia can predict one's future behavior (Bamberg, Ajzen, and Schmidt, 2003). When a behavior has been performed many times in the past, subsequent behavior increasingly comes under the control of an automated cognitive process (Aarts, et al. 1998; Ouellette and Wood, 1998; Limayen and Hirt, 2003). Once the use of a specific Web site becomes routine, relationship inertia should become an additional force that increases the behavioral intention to continue using the Web site (Gefen, 2003).

Our management issue is how to retain Internet customers who use the Internet banking services of a financial services company. For Internet banking, we integrate the technology acceptance model (TAM) into our research, and it may assist this study to analyze the interactions and interrelationships between inertia, switching cost, and service convenience. The research objective of this study is to exploit the customers' relationship and induce customers' inertia in using the Internet banking. We seek feasible strategies to draw customers into a state of relationship inertia to diminish the hazard of losing them (Liu, Wu, and Huang, 2007). We establish three research objectives as follows.

- ◆ To exploit the customers' relationship and induce customers' inertia with regard to Internet banking.
- ◆ To draw customers into a state of relationship inertia to diminish the hazard of losing the customers.
- ◆ To discover more dimensions of inertia to fill in the gaps in the literature.

Exploring the use of the virtual world for business is inevitable. Banks play an important role in accessing and distributing assets in financial markets and offer financial services. Global economic trends are toward a free trade economy of regional integration. The Internet renders markets more open and transparent. Internet banking has many features and capabilities in

common, such as information revelation. This study considers how inertial customers bring about potential benefits in Internet banking.

We expect the improvement of Internet banking will accompany some benefits to the financial industry. For example, it will reduce the information asymmetry of financial markets, or maintain the market mechanism, internationalize the commodities of financial markets, coordinate Internet banking with other countries, including those in the Asia-Pacific area, and so on. When Internet banking becomes more mature, the operating costs, time costs, human resource costs, and setting-up costs may be reduced. Because there are no time restrictions in the virtual world, Internet banking will increase opportunities making profits and promote the liquidity of assets for investors, as well. It would facilitate firms' customer relations management, and promote suitable investment programs.

THEORETICAL BACKGROUND AND HYPOPAPER

This framework is based on previous research into the Technology Acceptance Model (Davis, 1989; Wang et al., 2003; Amin, 2009), switching cost (Jones et al., 2007; Burnham, Frels, and Mahajan, 2003), service convenience (Berry et al., 2002; Colwell et al., 2008), and inertia (Huang and Yu, 1999; Gremler, 1995; Assael, 1998; Gounaris and Stathakopoulos, 2004; Gefen, 2003). The industry of our investigation is the financial services industry. We select the Internet banking department of the financial services industry to research customer behavior. Especially, the causal relationships among inertia, switching cost, service convenience, and TAM are our primary focus of exploration.

Effect of Technology Acceptance Model on switching cost

According to the Technology Acceptance Model (TAM), adoption behavior is determined by the intention to use a particular system, which in turn is determined by the perceived usefulness and perceived ease of use of the system. Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance his or her service requirement performance. Perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). Perceived credibility refers to the two important dimensions, "security and privacy," that are identified across many studies as affecting intention by users to adopt the online-based transaction systems (Wang et al., 2003). Recent research has indicated that "trust" has a striking influence on user willingness to engage in online exchanges of money and personal sensitive information (e.g., Hoffman et al., 1999; Friedman et al., 2000; Wang et al., 2003; Amin, 2009). Accordingly, we propose perceived credibility (PC) is an element of TAM. Switching costs

are increasingly recognized as a means for keeping customers in relationships (Jones et al., 2007), regardless of customers' satisfaction with the service provider (e.g., Bansal, Irving, and Taylor, 2004; Burnham, Frels, and Mahajan, 2003; Jones, Mothersbaugh, and Beatty, 2000).

Chiu et al. (2005) found that consumers are likely to consider the online transaction useful for making purchases. Pikkarainen et al. (2004) indicated that perceived usefulness was positively correlated with Internet banking use. Wang et al. (2003) recognized that perceived usefulness had a significant positive effect on behavioral intention with regard to online banking. Perceived usefulness may accelerate customers' attitude to stay with the original service provider. Because of perceived usefulness, if customers do not maintain the relationship with the original service provider, they will face learning, transaction, search and evaluation, benefit/loss, set-up costs, etc. (Klemperer 1987; Guiltinan 1989; Mitchell 1999; Jones et al. 2002; Yeh 2005; Yanamandram and White 2007). Thus, if an online service system provides much more useful information with lower costs or fewer fees, customers find it hard to switch to another financial company (Dick and Basu 1994; Evanschitzky et al. 2007). Hence, we propose hypothesis *H1* as follows.

H1: Perceived usefulness has a positive causal relationship with switching cost.

Recently, Amin et al. (2008) found that perceived ease of use is significantly related to usage intentions in the context of mobile banking. Wang et al. (2003) found that perceived ease of use had a significant positive effect on behavioral intention. Customers' perception of ease of use is usually accompanied by their perception of the effort required to switch to another place. Therefore, we propose hypothesis *H2* as follows.

H2: Perceived ease of use has a positive causal relationship with switching cost.

The importance of security and privacy to the acceptance of Internet financial services has been noted in many studies (for example, Pikkarainen et al., 2004; Howcroft et al., 2002; Polatoglu and Ekin, 2001; and Sathye, 1999). According to Yeh's (2005) study, when customers simplistically state, "it is just not worth it" to switch providers, among the kind of switching costs they perceive are the financial, social, and psychological risks. Users are concerned about the level of security present when providing sensitive information online (Waring et al., 2000), and will perform transactions only when they develop a certain level of trust. Thus, we propose hypothesis *H3* as follows.

H3: Perceived ease of use has a positive causal relationship with switching cost.

Effect of Technology Acceptance Model on service convenience

Kotler (1991) defines service convenience as "goods that the consumers usually purchase frequently, immediately, and with the minimum of effort in comparison and buying." Service convenience, as conceptualized by Berry et al. (2002), is defined as the "consumers' time and

effort perceptions related to buying or using a service” (Colwell et al., 2008).

Cheong and Park (2005) found perceived usefulness to be a significant factor with regard to intention to use mobile-Internet services. Perceived usefulness saves customers time that might be spent on filtering unimportant information. Brown (1990) notes that “time-saving” is one dimension of convenience. Saving time may be a benefit of a convenient service and the reason a consumer is interested in the service, it may not only be a characteristic of the service itself. Therefore, perceived usefulness could increase service convenience.

H4: Perceived usefulness has a positive causal relationship with service convenience.

Convenience refers to the extent to which a customer feels that the Web site is simple, intuitive and user friendly (Srinivasan et al., 2002). Wang et al. (2003) found that Taiwanese feel online banking is easy to organize and offers easily navigable interaction between customers and the bank’s Web site (Amin 2009). In practice, service providers devote greater resources to provide convenience as part of a strategic shift to more effective customer management. (Rust, Lemon and Zeithaml 2004; Seiders, Voss, Grewal, and Godfrey, 2006; Seiders et al., 2006). Therefore:

H5: Perceived ease of use has a positive causal relationship with service convenience.

Privacy and security were found to be significant obstacles to the adoption of online banking (Sathye, 1999). The reason is that perceived credibility generates trust on the part of customers so that they will accept such online service convenience. Hence, if customers cannot believe the financial service provider, the online service convenience is not the most important consideration for customers. Wang et al. (2003) found that perceived credibility had a significant positive causal effect on behavioral intention with regard to Internet financial services. Perceived credibility is the key to opening the door of service convenience.

H6: Perceived credibility has a positive causal relationship with service convenience.

Effect of switching cost on relationship inertia

Inertia is a constant consumption mode. Customers buy the same brand or service because of inertia, rather than as a result of the decision-making process or of time spent on giving the purchase careful consideration (Assael, 1998). The other use of the term “inertia” in the literature is that the customer is lazy, inactive, or passive. That is, there is an “experienced consideration but absence of goal-directed behavior” (Zeelanberg and Pieters, 2004); a lack of conscious decision to change (Huang and Yu, 1999); or conditioning due to habit (Bozzo, 2002).

Although one can imagine a number of possible ways to explain and endogenize this sort of inertia, a natural and simple choice is the presence of “switching costs” involved in changing

strategies from one period to the next (Thomas, 2009). When customers feel switching costs and other costs for building a new relationship (e.g., searching costs, evaluating costs, selecting costs, learning costs, as well as the time, monetary, and psychological expenditure) are very huge, customers will fall into such a situation (Yang and Peterson, 2004). Thus, switching cost locks customers into the relationship inertia.

H7: Switching cost has a positive causal relationship with inertia.

Effect of service convenience on relationship inertia

Inertia is perceived as customers not switching because it is “too much bother in terms of time and effort” (Colgate and Lang 2001). Relationship inertia represents that an individual, although purchasing the brand, does so out of habit, convenience or for some other reason, but not as a consequence of emotional attachment to the brand or a real social motive (Gounaris and Stathakopoulos 2004). Accordingly, service convenience is one of the reasons for customers staying in a continuing relationship. Service convenience comforts lazy customers and eliminates inconvenience. Then, relationship inertia sets in.

H8: Service convenience has a positive causal relationship with inertia.

Effect of service convenience on switching cost

The marketing literature has emphasized the importance of consumers’ desire for convenience and the value of time. In general, the greater the time costs associated with a service, the lower are consumers’ perceptions of service convenience. Porter (1980) suggested that switching costs are one kind of cost of time, as opposed to the ongoing costs associated with using a product or provider once a repeat-purchase relationship is established. The sequential service convenience dimensions reflect three different types of consumer effort: physical, cognitive, or intellectual, and emotional (Mohr and Bitner, 1995; Seiders et al., 2006). Therefore, service convenience could expand the switching cost of customers.

H9: Service convenience has a positive causal relationship with switching cost.

Based on the discussion in the literature review, we extend it and establish our research framework as depicted in Figure 1.

MEASUREMENT AND SURVEY

This study adopts Taiwan’s financial services industry as the research subject. This study selects the top fourteen banks with regard to the net amount of financial investment, by using quota sampling. The questionnaires are dispatched to the respondents in printed form and via the Internet. We predict that the total respondent ratio of these fourteen financial services

companies will reach 80%. Because of tardy growth in Internet banking or conservative financial investment, we deduct the amount of financial investment of Chunghwa Post Co., Ltd., The Agriculture Bank of Taiwan, and China Development Industrial Bank from the total net amount of domestic financial investment.

The research tool of measurement in this paper, which is the questionnaire, includes six variables, which are independent variables (perceived usefulness, perceived ease of use and perceived credibility); intermediary variables (switching cost and service convenience); and dependent variables (inertia). The questionnaire design consults the literature review with regard to domestic and foreign researches. A 5-point Likert scale, ranging from 5 for “agree strongly” to 1 for “disagree,” was utilized to measure responses to questions. Among them, “1” represented “disagree,” “2” represented “rather disagree,” “3” represented “agree,” “4” represented “agree at lot,” “5” represented “agree strongly.” The items of each construct, the method of measurement, and related literature are addressed as follows. A pre-test was conducted to make sure all respondents agreed that the scenarios described were satisfactory situations, and capable of representing their opinions. Before conducting the experiment involving the formal questionnaire, we manually designed the pre-test and selected the online banking of the financial services industry for the pre-test samples. The pre-test was planned to first test the pre-tested questionnaire as to whether it had reasonable reliability and validity. Besides, the pre-test was intended to determine whether the lack of difference in values was attributable to other factors by one-way ANOVA analysis, and then to improve the scale validity and modify the wording for the formal questionnaire.

TAM: perceived usefulness, perceived ease of use, and perceived credibility

We determined TAM using three construct questions that were developed by Amin (2009). Amin (2009) researches online banking usage intentions with TAM. Perceived usefulness with three items is modified from Wang et al. (2003); perceived ease of use with three items is modified from Davis (1989), Venkatesh (2000), Nysveen et al. (2005), Chiu et al. (2005), and Pikkarainen et al. (2004); perceived credibility with two items is modified from Wang et al. (2003) and Pikkarainen et al. (2004). We combine other items from Davis (1989), who proposed TAM and measurements for predicting perceived usefulness and perceived ease of use.

Switching cost

The study adopts the measures of switching cost from existing studies (Burnham, Frels, and Mahajan, 2003). This work measures the switching costs constructs using three categories, including procedural, relational, and financial switching costs.

Data resource: From Burnham, Frels, and Mahajan (2003).

Service convenience

Service convenience is based on the study by Berry et al. (2002), in which he proposed five convenience dimensions, and constructed nineteen questions to measure these service conveniences. The questions in a questionnaire were revised by Colwell et al. (2008). For the financial services industry of our research, this study combines the benefit and post-benefit convenience.

Data resource: Modified from Berry et al. (2002) and Colwell et al. (2008).

Inertia

This study adjusts and revises the itemized issues and some detailed assessment indices for inertia that were developed by Gremler (1995) and Gefen (2003). Gremler (1995) advances a basis for scales, and develops one to three items. Gefen (2003) regards four to seven measurements for inertia as given below. Furthermore, we combine the seven questions developed to measure inertia.

EMPIRICAL RESULTS

Using quota sampling, the study sent out questionnaires to the customers of Internet banking at the 14 banks in Taiwan. Six hundred questionnaires were delivered to the sampling and 571 returned. The ratio of questionnaires returned is 95.2%. The valid questionnaires were 533 excluding 38 invalid questionnaires that had missing values or incomplete answers. The effective rate of response was 88.8% (see Table 1).

Descriptive statistics

In our study of Internet banking, we separate print from Internet questionnaires. We collect the demographic characteristics of each respondent, including gender, age, education, insurance fee, occupation, and position. For all questionnaires, the percentage of males and females was 50.7% and 49.3%, respectively. As regards age distribution of samples, 72.6% respondents range from 18 to 49 years old. As regards level of education, most respondents can be profiled as college educated (44.3%) and master's degree educated (31.5%). The average income per month of most respondents ranges from 20,000 to 60,000 (58.3%). The main occupations are predominantly manufacturing, financial industry, service industry, and student at 16.7%, 16.5%, 15.2% and 18.2%, respectively. Besides, from the results of this study, we realize gender, age, education, occupation, and average income per month yield almost no significant differences in relation to relationship inertia (P -value $> .05$). Neither the print nor Internet

questionnaires reported a difference in relationship inertia with regard to the different demographic characteristics.

Reliability and validity evaluation

Our study operates the reliability analysis by way of Composite Reliability (CR) to measure the internal consistency reliability of the variables. Fornell and Larcker (1981) proposed that the desirable value is larger than .4. Hence, the higher the value of CR, the higher the internal consistency and reliability in our questionnaire will be. As to the CR, it is computed as $(\text{sum of standardized loading})^2 / ((\text{sum of standardized loading})^2 + (\text{sum of square of measurement error}))$.

In this study, we employ the Average Variance Extracted (AVE) to examine convergent validity and discriminate validity. If the value of AVE is higher than .4, it shows that our questionnaire has convergent validity and discriminate validity. Concerning the AVE, it is calculated as $(\text{sum of square of standardized loading}) / ((\text{sum of the square of standardized loading}) + (\text{sum of square of measurement error}))$ to represent, the discriminate validity (see Table 2). Our study obtains the CR and AVE of each variable in Table 2.

Results of LISREL Analysis

Print Questionnaire

Table 3 presents the structural model with the coefficient and almost significant relationship between variables, and variables follow the hypothesized direction. These results provide us reasonable evidence for the model. Perceived usefulness has an effect on switching cost (H1: $\beta_1 = .59$) as well as on service convenience (H2: $\beta_2 = .55$). Perceived ease of use has an effect on service convenience (H4: $\beta_4 = .27$), but perceived ease of use does not significantly influence switching cost (H3: $\beta_3 = .02$). Perceived credibility also does not significantly influence switching cost. (H5: $\beta_5 = -.02$). Perceived credibility has a significant effect on service convenience (H6: $\beta_6 = .15$). Furthermore, service convenience and switching cost both significantly affect inertia, with the former having a larger effect (H7: $\beta_7 = .88$) and the latter having a smaller effect (H8: $\beta_8 = .18$). Service convenience influences switching cost (H9: $\beta_9 = .52$).

Internet Questionnaire

Table 3 also reveals the structural model with the coefficient and almost significant relationship between variables, and variables follow the hypothesized direction. These results provide us reasonable evidence for the model. Perceived usefulness has an effect on switching cost (H1: $\beta_1 = .39$) and as well as on service convenience (H2: $\beta_2 = .42$). Perceived ease of use has an effect on switching cost (H3: $\beta_3 = .12$) as well as on service convenience (H4: $\beta_4 = .37$). However, perceived credibility does not significantly influence switching cost. (H5: $\beta_5 = .0025$). Perceived credibility has a significant effect on service convenience (H6: $\beta_6 = .18$). Furthermore, service convenience and switching cost both significantly affect inertia, with the former having a larger effect (H7: $\beta_7 = .95$) and the latter having a smaller effect (H8: $\beta_8 = .09$). Service convenience influences switching cost (H9: $\beta_9 = .63$).

All Questionnaires

Table 3 displays the structural model with the coefficient and almost significant relationship between variables, and variables follow the hypothesized direction from all questionnaires, as well. These results provide us reasonable evidence for the model. Perceived usefulness has an effect on switching cost (H1: $\beta_1 = .43$), as well as on service convenience (H2: $\beta_2 = .46$). Perceived ease of use has an effect on switching cost (H3: $\beta_3 = .11$), as well as on service convenience (H4: $\beta_4 = .33$). However, perceived credibility does not significantly influence switching cost. (H5: $\beta_5 = -.0016$). Perceived credibility has a significant effect on service convenience (H6: $\beta_6 = .17$). Furthermore, service convenience and switching cost both significantly affect inertia, with the former having a larger effect (H7: $\beta_7 = .95$) and the latter having a smaller effect (H8: $\beta_8 = .094$). Service convenience influences switching cost (H9: $\beta_9 = .61$). The results are as below.

Empirical Analysis of Rival Models

It is generally agreed that researchers would investigate and compare rival models and not just inspect the goodness of fit of the hypothesized model (Bollen and Long, 1992). Bagozzi and Yi (1998) provide the necessity of the rival model. Furthermore, the model also can utilize the value of GFI, CFI, RMSEA, and other relative indicators of path coefficients for analysis (Bagozzi, 1992). Sharma (1996) suggested using the difference of χ^2 value to compare and examine the effectiveness of the rival model. Bagozzi and Yi (1988) think the values of χ^2 and χ^2/df are important. Thus, we emphasize these indicators of rival model analysis in our research.

To consider the mediator effect, we establish the rival hypopaper one for examination. In rival hypopaper one, we neglect the mediator variable and assume just antecedent variables directly influence relationship inertia. The illustration is as depicted in Table 4. As to the empirical results in the original model, the values of χ^2/df are 3.51 and 6.36 from the print and Internet questionnaires. Values of CFI, GFI, and RMSEA from the print questionnaires are .93, .67, .12, and from the Internet questionnaires, they are .93, .68, and .12.

Hence, the significant ratios of the original models are 7/9 and 8/9 from the print and Internet questionnaires, meaning that paths are approximately 78 and 89 percent significant.

CONCLUSIONS

According to the empirical results of our research, we find the main route is one where perceived usefulness achieves relationship inertia via service convenience. As Davis (1989) proposed, we define perceived usefulness as the degree to which a person believes that using a particular system would enhance his or her service requirement performance (Davis, 1989). Virtual platforms are becoming increasingly sophisticated, showing potential for a variety of collaborative business activities (Shen and Eder, 2009). If the virtual platform provides useful information and material, customers will use less time and effort to search for useful information or filter questionable material. Besides, according to Gounaris and Stathakopoulos (2004), service convenience is one of the reasons for customers staying in a continuing relationship. Service convenience comforts lazy customers and eliminates inconvenience. Colgate and Lang (2001) found that the banking customer had a high degree of inertia. For instance, when customers are used to doing business with a bank or maintaining a bank account, service convenience is accelerated over time (Limayen and Hirt, 2003). Thus, we propose this managerial path for managers.

Except for the main route, we recognize the other alternative, that perceived ease of use induces inertia through service convenience (each coefficient is $\beta_4 = .37$ and $\beta_7 = .95$). The gap between the main path and the alternative is not great ($.0475 = .42 * .95 - .37 * .95$). Perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989). Wang *et al.* (2003) found that perceived ease of use had a significant positive effect on behavioral intention. This finding refers to the fact that users who have a higher computer self-efficacy are likely to have a more positive perceived ease of

use. In practice, service providers devote greater resources to providing convenience as part of a strategic shift to more effective customer management. Researchers also are increasingly interested in understanding the effects of convenience on consumer behavior, and recent empirical studies indicate that convenience influences critical marketing consequences, including customer evaluation and purchase behavior (Rust, Lemon and Zeithaml, 2004; Seiders, Voss, Grewal and Godfrey, 2006; Seiders *et al.*, 2006). Consequently, firms are also able to draw customers into relationship inertia by perceived ease of use via service convenience.

The research implications of this study are to exploit the customers' relationship and induce customers' inertia in Internet banking. We consider strategies to draw the customer into a state of relationship inertia so as to diminish the hazard of losing them (Liu, Wu, and Huang, 2007). The research demonstrates perceived usefulness drives switching cost and service convenience increases, and perceived ease of use also induces switching cost and increases service convenience. However, for perceived credibility, the cause-effect relationship is not significant in Internet banking in the financial services industry. Service convenience has greater influence on relationship inertia. By extending convenient service for customers, customers are drawn into the state of relationship inertia. According to the empirical results, we consider that the fierce competition in the financial services industry may give customers opportunities to choose the no-switching cost companies, so that visible switching costs lower their entering intention.

We suggest that managers conduct the two main paths simultaneously. Perceived usefulness and ease of use occur at the same time, when customers are using Internet banking. Neither is dispensable. In addition, if firms want to increase the sense of trust of customers, they may consider the security aspect independently. Perceived credibility is an important key to customers but not directly accurate related to switching cost and service convenience. Firms still might to develop an invisible layer for switching costs. Customers will be annoyed at finding difficult obstacles exist to switching to another bank. The switching cost is supposed to appear after long usage and not discovered at the initial stages. Then, the invisible switching cost is supposed to achieve a certain level of opportunity cost to keep the customers locked in.

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Figure 1 Research Framework of This Study

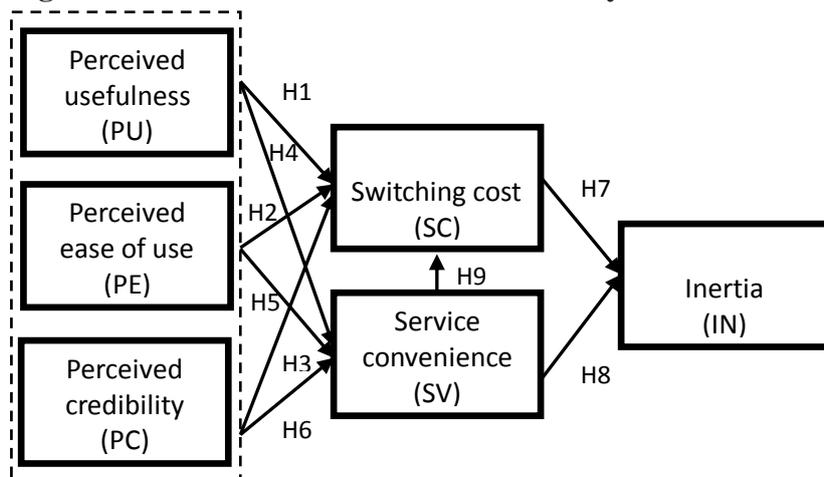


Table 1 The Predicted and Actual Questionnaires Return Ratio and Count

No	Name of banks	Net amount		Predicted ratio	Predicted count.	Actual y ratio	Actual y count	Valid count
		of financial investment						
1	Bank of Taiwan	167,921	11.95%	72	15.06%	86	80	
2	Chinatrust Commercial Bank	162,936	11.60%	70	13.31%	76	75	
3	Taiwan Cooperative Bank	101,886	7.25%	44	7.36%	42	42	
4	Hua Nan Bank	100,238	7.14%	43	7.53%	43	41	
5	Shanghai Commercial Bank	96,686	6.88%	41	6.83%	39	39	
6	Mega International Commercial Bank	84,819	6.04%	36	6.30%	36	35	
7	Land Bank of Taiwan	72,009	5.13%	31	4.73%	27	25	
8	First Commercial Bank	68,140	4.85%	29	6.30%	36	31	
9	Cathay United Bank	64,840	4.62%	28	5.78%	33	33	
10	Taipei Fubon Bank	55,748	3.97%	24	6.65%	38	30	
11	Chang Hwa Bank	49,363	3.51%	21	4.20%	24	20	
12	Bank SinoPac	42,219	3.01%	18	4.38%	25	21	
13	E.Sun Bank	41,005	2.92%	18	3.85%	22	22	
14	Taishin Bank	30,132	2.15%	13	2.63%	15	14	
15	Others	266,705	18.99%	114	5.08%	29	25	
Total		1,404,647	100%	600	100%	571	533	

Data resource: Central Bank of the Republic of China (Taiwan) and this study,

Note: The amount of 554,610 million dollars for international financial services branches and overseas branches are not included in this table. Time: 2008/12/31

Table 2 The Composite Reliability (CR) and Average Variance Extracted (AVE) of Each Variable

Construct or item	Printing Questionnaires		Internet Questionnaires		All Questionnaires	
	CR	AVE	CR	AVE	CR	AVE
Perceived usefulness	0.85	0.49	0.84	0.48	0.87	0.52
Perceived ease of use	0.91	0.59	0.90	0.56	0.90	0.57
Perceived credibility	0.93	0.81	0.92	0.80	0.92	0.81
Switching cost	0.88	0.72	0.86	0.68	0.88	0.70
Service convenience	0.88	0.65	0.89	0.66	0.91	0.66
Relationship inertia	0.82	0.44	0.86	0.46	0.85	0.45

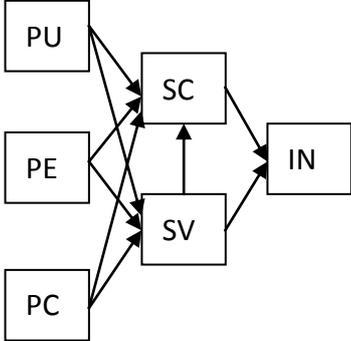
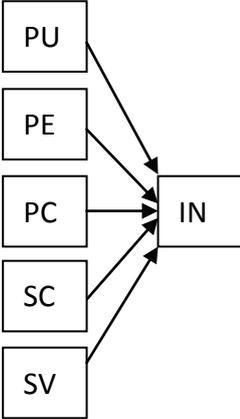
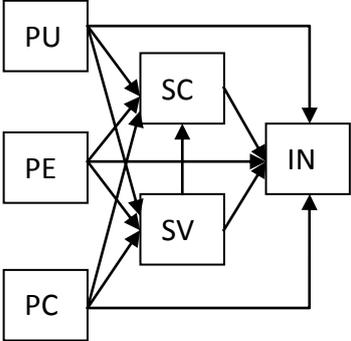
Data source: This study. Note: First column is the results of printing questionnaires; second column is the results of internet questionnaires.

Table 3 Empirical Results of the Hypotheses in Structural Model

Source	Hypopaper	H1	H2	H3	H4	H5	H6	H7	H8	H9
		PU→ SC	PU→ SV	PE→ SC	PE→ SV	PC→ SC	PC→ SV	SC→ IN	SV→ IN	SV→ SC
Printing Questionnaires		0.59	0.55	0.02	0.27	-0.02	0.15	0.88	0.18	0.52
		8.12**	4.25**	0.43	2.27*	-0.84	2.72**	8.52**	3.27**	9.17**
Internet Questionnaires		0.39	0.42	0.12	0.37	0.0025	0.18	0.95	0.089	0.63
		11.12**	5.37**	4.00**	5.07**	0.16	4.40**	11.63**	2.20*	15.96**
All Questionnaires		0.43	0.46	0.11	0.33	-0.0016	0.17	0.95	0.094	0.61
		13.77**	6.90**	4.35**	5.33**	-0.13	5.23**	14.40**	2.88**	19.20**

Data Source: This study. Note: Where PU means perceived usefulness; PE means perceived ease of use; PC means perceived credibility; SC means switching cost; SV means service convenience; IN means inertia. The first row is beta coefficient; the second row is T-value. Based on one-tailed tests: for t-values greater than 1.65(*); for t-values greater than 2.33(**).

Table 4 Empirical Results of the Hypotheses in the Structural Model (Print Questionnaire)

Measurement indices	Original model		Rival model 1 (structure school)		Rival model 2 (synergy school)	
LISREL						
Structural model						
Significant ratio	78%	89%	40%	40%	67%	67%
χ^2/df	3.51	6.36	3.17	5.96	3.17	5.97
CFI	0.93	0.93	0.93	0.93	0.93	0.93
GFI	0.67	0.68	0.69	0.70	0.69	0.70
AGFI	0.60	0.62	0.63	0.64	0.63	0.64
RMR	0.073	0.078	0.070	0.075	0.070	0.075
RMSEA	0.12	0.12	0.111	0.12	0.111	0.118

Data Source: This study. Note: The first column is results of printing questionnaires, and the second column is results of internet questionnaires.