

# UNDERSTANDING THE TRANSFORMATION OF CURRENT SERVICE QUALITY PERCEPTION TO INTENTION TO USE E-SERVICE IN TELECOMMUNICATION INDUSTRY

Siripong Charoensuk\*

## Abstract

While e-service has widely been used to replace the personal-based service, less research has been done to study the formation of intention to use e-service compared with personal-based service. The purpose of this research is to examine the model that forms intention to use e-service in the telecommunication industry. Data was collected through a survey, and 400 respondents, both landline and mobile customers in Thailand, were analysed according to whether they want to use e-service based on their current service perceptions or not. Structural Equation Modelling techniques were used to evaluate the research model and structural relationships. The findings show that the level of intention to use e-service is enhanced by better managing traditional service quality, customer satisfaction, customer value, and service experience consequently. Moreover, the relationship paths to develop strong intention to use e-service in telecommunication industry are suggested.

## INTRODUCTION

When a company wants to change the service offering from personal based service to electronic based service, this raises the question of what factors the company should consider to build up intention to use e-service. Prior research has shown the importance of study in this issue that was suggested as an implication for marketing theory and practice (Bhatnagar *et al.*, 2003, pp. 383) and joint analysis studies of e-service and tradi-

tional service are required (Birgelen *et al.*, 2005). Furthermore, research on service quality, customer value and behavioural intention has paid insufficient attention to the telecommunication industry although this industry has played an important role either as an e-service provider or e-service facilitator to customers. Wang and Lo (2002) supported this literature gap regarding service quality, customer value and future behaviour intention in the telecommunication industry.

It is very difficult to find related studies

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\*Dr. Siripong Charoensuk holds DBA in (Marketing Management) from University of South Australia (Australia). Currently he is working as ISP Marketing Manager at TOT Public Company Limited.

with the service quality, customer satisfaction and customer value and their influence on customer future behaviours with the telecommunication industry as the focus, let alone related studies supported by evidence from China (Wang and Lo, 2002, pp.51).

The telecommunication industry provides both product and service to customers, but service is a particularly important part of this industry. Since the internet has been involved in business contexts, this inspires the telecom industry to use electronic service as a new competitive tool for providing service to their customers. Thus, it needs to be researched for linkages between traditional service and electronic service when the telecommunication industry wants to change their services to electronic based service.

This research aims to examine the formation of intention to use e-service by considering current traditional service quality, customer satisfaction, customer value, and service experience. By surveying customers of land line and mobile telephone companies in Thailand, the research will test the main hypothesis.

## **LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **Service Paradigm Shift: From Traditional Service to e-Service**

Since technology has improved, traditional service is now being replaced by e-service because of the expansion of cyberspace users and technology readiness. The reason for this is that advancing technology has influenced consumer behaviour

in the buying and selling of services. Because the internet is a huge information network, consumers keenly select information and use it to support their decision making both directly and indirectly. Sweeney and Lapp (2004) described the transition process of marketing from traditional methods to the online medium as a paradigm shift and asserted that this shift has affected customers' perspective when using an electronic service encounter point (web site).

### **Definition of e-service**

Voss (2003) defined e-service as service in the virtual market and use of new media such as the web for delivery of the service. Additionally, Boyer, Hallowell and Roth (2002) defined e-services as the service that is comprised of all interactive services and delivered on the internet by using advanced telecommunications, information, and multimedia technologies. According to Rust and Lemon (2001), the term 'e-service' was defined as the true nature of the web that becomes a key of effective marketing in the information era. They also described that three central changes in e-service -true interactivity with customers, personalisation and real-time adjustment for customer offering - are the critical aspects of e-service.

Voss (2000) has shown the difference between e-service and e-commerce on behalf of customer relationship marketing. He explained that service on the internet can be distinguished from pure sales on the web, with little or no service content to pure service free or with service contact. Later, Rowley (2006) defined e-service through technology mediation and two in-

herent characteristics of e-service such as e-service as information service and e-service as self service. Thus, this study will examine the e-service which is services of the telecommunication industry on the internet, such as registration for new line telephone, telephone bill pay and service complaints.

### **The Concept of Traditional Service Quality**

Because of the unique characteristics of service, service quality has become a more subjective and complicated concept than product quality. This has led to defining perceived quality by the customer as service quality. Parasuraman *et al.*, (1985) has set three main themes of service quality. First, service quality is more difficult to evaluate than product quality. Second, service quality is a comparison between service expectations before the customer encounters a service firm and performance perceptions of the customer after receiving service delivery. Third, the evaluation of service includes both the process of service delivery and the outcomes of service. Johnston (1995) also defined service quality as overall impressions of customers provided by service firms. This idea means that service quality comes from customers' attitude of comparison between expectations and performance.

Further, many researchers have tried to spread the use of this service quality concept to many industries, such as professional services, health care, tourism, libraries, utilities, information systems, airline companies, education, fast food, retailing, hospital, advertising industry, public sector services, real

estate, physiotherapy services, banking, apparel manufactures, nursing homes, local government, rehabilitation services, dental care, web sites, and telecommunication. Moreover, the relationship of consequent factors such as customer satisfaction, value, customer loyalty and future behaviour intention have been researched to extend knowledge in the field of service quality and reinforce the knowledge foundation in the field of service quality to business in practice. In this research, the concept of service quality will be studied with customer satisfaction, intention to use e-service by regarding the influences of customer value and service experience to extend application of knowledge in the telecom industry context.

### **Customer Satisfaction of Service**

Customer satisfaction is a significant concept in marketing and management and this concept has been used by many businesses as a goal to perform (Yi, 1990; Wang and Lo, 2002). Two different conceptualisations of customer satisfaction – transaction specific satisfaction and overall satisfaction – are suggested to understand behavioural intentions from service quality (Teas, 1993a; Rust and Oliver, 1994; Bou-Llusar *et al.*, 2001; Wang and Lo, 2002). From a transaction perspective, customer satisfaction is viewed as a post-choice judgment of a particular purchase occasion (Oliver, 1980, 1993). Bitner and Hubbert (1994) indicated that transaction specific satisfaction is satisfaction or dissatisfaction of customers with a discrete encounter.

On the other hand, cumulative or overall customer satisfaction is about the cumulative effect of a set of discrete service encounters or transactions with a service firm over time (Rust and Oliver, 1994; Oliver, 1997). Similar to Teas (1993a) and Parasuraman *et al.*, (1994), overall satisfaction at a specific time is an accumulation of all transaction specific satisfaction at that time. Furthermore, Jones and Suh (2000) explained that overall satisfaction may come from many or a few transactions, depending on how long a customer has experienced service from the particular provider. Moreover, Boulding *et al.*, (1993) suggested that there is a linkage between overall satisfaction and transaction specific satisfaction, because overall satisfaction at time  $t-1$  will have influenced transaction specific satisfaction at time  $t$ . However, Jones and Suh (2000) found that the two types of customer satisfaction can be separated from each other because of variation in service experiences and levels of transaction specific satisfaction in service quality.

Also, Stauss and Neuhaus (1997) suggested the qualitative satisfaction model that satisfaction can produce both positive and negative consequences under different conditions. Positive or negative consequences will depend on customers' expectation about service in different customer satisfaction states.

In this research, it is more useful to measure overall satisfaction than transaction specific satisfaction, due to the researcher wanting to study the influences of customer value and service experience on customer satisfaction and service quality to create future behaviour intentions. Wang and Lo (2002) supported this

idea and said that measuring overall customer satisfaction is more useful to predict customers' behavioural intention with firms' past, present and future performance than transaction specific satisfaction. Furthermore, overall satisfaction is more stable and similar to attitude than transaction specific satisfaction (Parasuraman *et al.*, 1994).

### **Future Behaviour Intention: Intention to Use e-Service**

Future behavioural intention is a related important issue in the field of service quality and many researchers have studied it as a dependent variable in service marketing research. Some researchers have studied intentions as a consequence of perceived service quality (Boulding *et al.*, 1993; Zeithaml *et al.*, 1996; Alexandris *et al.*, 2002) and some consider intentions as an outcome of perceived service quality and customer satisfaction (Athanasopoulos, 2000; Swanson and Davis, 2003). Also, behavioural intention can be a consequence of customer satisfaction (Athanasopoulos *et al.*, 2000; Sderlund, 1998; Ranaweera and Prabhu, 2003; Hennig-Thurau, 2004). Further, intentions have been specified into many specific names such as loyalty, switching behaviour, expectation of use, word of mouth, repurchase intention or buying intention. However, Sderlund and hman (2005) suggested that studying intention without regarding to different types of intentions may cause problems in the interpretation of knowledge from the research and these types of intentions are not equally strong when studying them along with other variables.

According to Sderlund and hman (2005), there are three kinds of intention constructs called intention-as-plans, intention-as-wants and intention-as-expectations. First, intention-as-plans came from the theory of reasoned action (Ajzen and Fishbein, 1977) and the theory of planned behaviour (Ajzen, 1991). This construct means that intentions influence behaviour via the process of making a commitment. For the intention-as-wants and intention-as-expectations, they were introduced by few researchers (Sderlund and hman 2005; Sderlund, 2003). The intention-as-wants construct means that future acts of person can be explained by his or her wants. Finally, the intention-as-expectations construct is frequently used in marketing research. This construct describes the subjective probability that a person will act in the future due to the result of individual assessment. The intention-as-expectations construct is the most popular in related study about satisfaction (Sderlund and hman 2005).

In this research, the intention-as-expectations construct will be considered as a framework for studying the intention to use e-service. According to Sderlund and hman (2005), the intention-as-expectations construct refers to possible future behaviour of a customer that he or she will perform after assessing the service. This idea fits this research which will study the effect of traditional service quality on customer satisfaction and intention to use e-service because intention to use e-service presents as future behavioural intentions of customers who have experienced existing service.

In particular, the research aims to find the future behavioural expectations of telecom customers based on current service quality and customer satisfaction before telecom companies will change to electronic based service.

### **Customer Value: The Capital of Service Firm**

The importance of customer value is acknowledged by many concepts in business studies. It has been found that customer value is a driving force behind customer behaviour intention, attraction and retention (Rust and Oliver, 1994; Oliver, 1980; Zeithaml, 1988; Grönroos, 1997). Khalifa (2004) supported this idea and said that customer value is considered as a main factor for building competitive advantage and long-term benefit of businesses. Later, Liu (2006) proposed three similar dimensions of customer value which are economic value, value of the relational/support service and value of technical/core service. Also, Hellier *et al.* (2003) suggested that if customer becomes less or more satisfied after purchasing a product or service, this situation will influence subsequent customer value, purchase intention and overall satisfaction. In particular, it is the customer who determines value from his or her perception, so there is a linkage between perception and value.

Three models related to customer value are as follows; value components models, means-ends models and benefits/costs ratio models. First, the value components model focuses on the want, worth or need of customers to fill their

desires (Khalifa, 2004). Second, the means-ends model is based on the concept that customers acquire products or services because they want to achieve favourable ends (Khalifa, 2004). This model shows the linkage between service attributes and customer value. Lastly, the benefits/costs ratio model shows the comparison of customers of the difference between customer benefit received and cost incurred (Khalifa, 2004).

This study will consider the benefits/costs ratio model as a structure in building customer value for the telecommunication service. Also, Holbrook (cited in Cottet *et al.*, 2006) defined value that is perceived by the customer as a result of an interactive, preferential and relative experience. Thus, customer value and experience share a concept with each other to construct customer satisfaction and are suitably applied in the service context.

### **Service Experience of Customer: A Key to the Success of Service Firm**

Service experience seems to be less considered in the service literature. Fisk *et al.*, (cited in Grove and Fisk 1992) supported this idea and said that less than fifteen percent of the total service literature pays attention to studying service experience and this issue still needs to be researched in order to conceptualize the service experience concept. Stuart and Tax (2004) also suggested that providing an outstanding service experience is a key to success for service firms in a competitive service environment. Another benefit of service experience is that service experience

can be used to reinforce a service firm's image which affects customer perceptions.

When considering the service experience concept, many researchers have explored this in a variety of ways. First, the service experience was explained as a direct experience of customer with the service (Goldstein *et al.*, 2002) and some researchers have suggested that customer perceived experience is a behavioural process related to sequencing of events in the service encounter. This idea means that the new service expectation influences the customer about their perception from the last service experience. Similarly, Edvardsson *et al.*, (2005) defined service experience as a process that creates emotional, cognitive, and behavioural responses in the customer's memory. Moreover, By studying service experience online and offline, Bhatnagar *et al.*, (2002) supported that service experience in one domain can influence expectations about another domain and this research issue is becoming critical.

Another idea is that service experience relates to performance and providing outstanding experience means the service firms have to provide superior performance. The main idea of this viewpoint is that great performance generates outstanding service experience. Grace and O'Cass (2004) supported the idea that the impact of the service experience is a vital factor for service marketers to understand customer evaluation of service performance and satisfaction. Also, Williams and Anderson (2005) suggested that the service provider should be a source of memories rather than just providing service to the customer. In this research, service experience will be



identified as overall customers' experiences in service relating to their evaluations about service quality, customer satisfaction and future customer decision in using a new service.

### **Relationship between Traditional Service Quality, Customer Satisfaction, Customer Value, Service Experience, and Intention to Use e-Service**

When considering the relationship between service quality, customer satisfaction and behavioural intentions, some researchers have found that service quality perception has a positive influence on purchase intention (Parasuraman *et al.*, 1988; Carman, 1990) while some have found that service quality is an antecedent of customer satisfaction (Boulding *et al.*, 1993; Zeithaml *et al.*, 1996; Athanassopoulos, 2000 Alexandris *et al.*, 2002). However, when the relationship between perceived service quality and intention is not direct, customer satisfaction has mostly been considered to be an intervening variable.

In order to find connections between customer satisfaction and value, many researchers have provided many debates in the service literature. Anderson *et al.*, (1994a) found that value has direct impact on customer satisfaction while Raval and Gr nroos (1996) asserted that customer satisfaction level depends on value. As stated earlier, this research will focus on the cost/benefit model in considering value perceptions of the customer in telecommunication industry. This model means that the customer relates the cost or monetary aspects against

the benefit they received. Customer perceived value presents as a comparison between benefits and sacrifices of customers (Zeithaml, 1988) and the sacrifices can be in the form of money, time or effort.

When considering the relationship of service quality and value, the relationship refers to the concept of economic value that concerns the concept of benefit and cost assessment. Liu (2006) suggested that benefit components is mostly about service quality, while cost components are related to monetary terms of a service. This researcher also emphasized that the concept of economic value focuses on high quality and/or low price that the customer perceived, comparing with alternative choices. The results of Liu (2006) showed that economic value has a strong positive impact on switching cost and should serve as a barrier to exit.

Service experience has also shown a linkage to service quality perception and customer satisfaction. For instance, Oliver (1980) suggested that experience in the service quality encounter is a cause of satisfaction or dissatisfaction and satisfactory experience will lead to a positive attitude and intentions to repatronise that service (Boulding *et al.*, 1993). This idea provides support in studying service experience with service quality and customer satisfaction. Bearden *et al.*, (1998) supported that it is useful for service firm to explore what conditions can lead to enhance perceived customer satisfaction with service experience. Also, de Brentani (1991) suggested that experience of a service quality evidence is important factor to understand when de-

veloping a new service. The relationship of all these variables has been investigated in the service marketing literature. Thus, this paper will evaluate the effect of traditional service quality, customer satisfaction, service experience, and customer value in forming intention to use e-service in the telecommunication context.

### **Hypotheses Development**

As stated earlier, in the literature in the field of service quality, customer satisfaction, behavioural intention, customer value and service experience, the relationships of these constructs are defined. All of these concepts have been shown to be related to each other. However, some relationships may be less considered in the service literature but some quite overwhelmingly considered. Particularly in the telecommunication industry, there are not many research papers attempting to study the relationship between service quality, customer satisfaction, value and future behavioural intentions. This study is attempting to fill this literature gap and possibly provide a conceptual idea for the telecommunication industry to understand their customers' perception of using e-service when personnel-based service is replaced by electronic service.

The relationships among traditional service quality, customer satisfaction, service experience, customer value, and intention to use e-service are hypothesised and discussed below.

H1: Traditional service quality will have a positive influence on customer satisfaction

H2: Traditional service quality will have a positive influence on customer value

H3: Traditional service quality will have a positive influence on service experience

H4: Traditional service quality will have a positive influence on intention to use e-service

H5: Customer value will have a positive influence on service experience

H6: Customer value will have a positive influence on customer satisfaction

H7: Customer value will have a positive influence on intention to use e-service

H8: Service experience will have a positive influence on customer satisfaction

H9: Service experience will have a positive influence on intention to use e-service

H10: Customer satisfaction will have a positive influence on intention to use e-service

### **Method**

The data collection of this research was undertaken via a questionnaire survey. Quota sampling was used to collect responses of telecom customers from two biggest landline and two biggest mobile companies in Thailand. The combination of these four companies is more than 80% of total landline and mobile subscribers. By using a convenience sample, a total of 400 usable responses were collected from busy customer services in the CBD of Bangkok, the capital city of Thailand. Trained research assistants were employed for collecting the research data.



The target population of this research was customers who have experience with telecom services from each of four biggest telecom companies in Thailand. To ensure that respondents have experience with telecommunication service, first-time customers were excluded from this research. The questionnaire used in this study included two sections. The first section was about measuring traditional service quality, customer satisfaction, customer value, service experience, and intention to use e-service. The second section was dealing with demographic information of the respondents. The questionnaire was also pre-tested by actual customers at one customer service centre and any ambiguous, biased questions were revised with understanding of difficulties in answer the questionnaire.

## Results

The first 18 items from an adapted version of SERVQUAL measurement were analyzed with exploratory factor analysis over 400 respondent customers of the landline and mobile telecom companies. In this study, the items with factor loading lower than 0.4 were dropped. An iterated factor analysis resulted in a five-factor model that was rotated by the Equamax algorithm with the principal component analysis. The results of factor analysis are reported in Table I with a model of five factors including: Reliability, Responsiveness, Assurance, Empathy, and Tangible, similar to the original work of Parasuraman, *et al.*, (1988). This result confirmed that these five factors can be used

to evaluate the traditional service quality dimensions in this study. Further, the descriptive statistics (mean and S.D.) and the pairwise correlation coefficients are reported in Table II. The mean values ranged from 4.61 to 4.87, relatively high. Also, the correlations of all constructs were found to be relatively high with the level of 99% confidence interval ( $p < 0.01$ ) which suggested the discriminant validity of the constructs (Oloruniwo *et al.*, 2006). The convergent validity was also examined by considering the relationship between each two constructs and it was found that every construct was highly correlated with all others at the  $p < 0.01$  level.

The confirmatory factor analysis (CFA) was further used to confirm the adequacy of the measurement model. The research model was assessed by using structural equation modelling techniques from AMOS version 5.01. Table III presents measuring constructs, standardized loading, Cronbach's  $\alpha$ , and t-value. The criteria value that used to evaluate the loading value is 0.5 or higher, as was suggested by Steenkamp and van Trijp (1991) and Chen and Quester (2006) as the acceptable level. The results of standardized loading were higher than 0.5, ranging from 0.71 to 0.89 indicating the convergent validity of the constructs (Anderson and Gerbing, 1988). Also, Cronbach's Alpha values range from 0.7 to 0.83. According to Hair *et al.*, (1998), the Cronbach's Alpha with a value of greater than 0.7 is considered adequate reliability for the measurement constructs. Moreover, all t-statistics are significant at the 0.01 level and this result provides good measures of the constructs in

the measurement model. To assess the measurement model, the measurement model fit statistics were also reviewed.

These statistics are Chi-square/degree of freedom, RMSEA, CFI, GFI, NFI, and TLI. The fit statistics of the measurement model are acceptable ( $\chi^2 = 75.66$ ,  $df = 50$ ,  $CMIN/df = 1.51$ ,  $RMSEA = 0.036$ ,  $GFI = 0.97$ ,  $TLI = 0.99$ ,  $NFI = 0.97$ ,  $CFI$

$= 0.99$ ). According to Bollen (1989) and Hu and Bentler (1995), the threshold levels of GFI, NFI and CFI were recommended to be above 0.9. In this research, GFI, NFI and CFI exceeded the recommended level and indicated the good fit of the model. The RMSEA was also less than 0.08 as recommended by Hair *et al.*, (1998).

**Table I. Factor loading for underlying service quality dimension**

Construct	Reliability	Responsi- veness	Assurance	Empathy	Tangible
Relia1	0.597				
Relia2	0.412				
Relia3	0.453				
Relia4	0.844				
Resp1		0.708			
Resp2		0.665			
Resp3		0.795			
Assure1			0.695		
Assure2			0.751		
Assure3			0.703		
Assure4			0.541		
Emp1				0.618	
Emp2				0.733	
Emp3				0.749	
Tang1					0.722
Tang2					0.797
Tang3					0.757
Tang4					0.422

**Notes:** Extraction Method: Principal Component Analysis and Equamax.

**Table II. Means, S.D., alpha and Correlation matrix for all exogenous and endogenous variables**

	Mean	S.D.	CV	SEXP	CS	EXP	Tang	Emp	Ass	Resp	Relia
<b>CV</b>	4.63	1.17	1.00**								
<b>SEXP</b>	4.78	1.04	.631**	1.00**							
<b>CS</b>	4.81	0.99	.675**	.608**	1.00**						
<b>EXP</b>	4.66	1.44	.435**	.532**	.463**	1.00**					
<b>Tang</b>	4.87	0.97	.476**	.438**	.547**	.337**	1.00**				
<b>Emp</b>	4.71	0.94	.464**	.471**	.551**	.332**	.650**	1.00**			
<b>Ass</b>	4.78	0.94	.426**	.439**	.490**	.303**	.593**	.647**	1.00**		
<b>Resp</b>	4.61	1.16	.390**	.459**	.461**	.270**	.522**	.571**	.609**	1.00**	
<b>Relia</b>	4.78	0.97	.419**	.447**	.540**	.346**	.562**	.568**	.608**	.642**	1.00**

**Notices:** CV = Customer Value, SEXP = Service Experience, CS = Customer satisfaction, EXP = Intention to use e-service, Tang = Tangibles, Emp = Empathy, Ass = Assurance, Resp = Responsiveness, Relia = Reliability. \*\* ( $p < 0.01$ )

To test the relationships among latent variables, path analysis based on the theoretical concept was built. The structural model fit was undertaken by examining the overall fit statistics, t-statistics, significance of standard coefficient and hypothesis supports, assessed by the AMOS maximum-likelihood method. As can be seen from Table IV and Figure 1, the result of the research model indicated a very good fit. All five service quality dimensions have positive influences on Traditional service quality. The standardize estimates also supported Hypothesis 1, 3, 5, 6, 9, and 10 at a significant level ( $p < 0.001$ ) and Hypothesis 2

at a significant level ( $p < 0.05$ ). Only three paths (Hypothesis 4, 7 and 8) were found to be an insignificant influence, including CS <--- SEXP, EXP <--- CV and EXP <--- Traditional Service Quality. In addition, no multicollinearity was found from the path model because all standardize coefficients of two variables are less than 0.8. Thus, all indices indicate the robustness of the path model among latent variables. Figure 1 shows the summary of findings from the research presenting significant influence in a solid line, while the non significant paths are drawn in a dashed line.

**Table III. The measurement model**

Construct	Standardize Loading	t-statistics	Cronbach's
<b>Traditional Service Quality</b>	0.76	c	0.924
Reliability	0.71	14.877***	
Responsiveness	0.77	13.886***	
Assurance	0.78	13.784***	
Empathy	0.77	14.191***	
Tangible			
<b>Customer satisfaction</b>			0.728
CS1	0.72	c	
CS2	0.79	14.195***	
<b>Customer value</b>			0.741
CV1	0.73	c	
CV2	0.81	10.377***	
<b>Service experience</b>			0.756
SEXP1	0.73	11.554***	
SEXP2	0.83	c	
<b>Intention to use e-service</b>			0.832
EXP1	0.89	11.040***	
EXP2	0.80	c	

**Notes:** c means item constrained to unity and \*\*\* ( $p < 0.001$ )

**Table IV. Structural parameter estimates**

	Standardize Coefficient	t-statistics	Hypothesis support
<b>Structural Paths</b>			
CV<--- Traditional Service Quality	0.683	9.95***	Yes
SEXP <--- Traditional Service Quality	0.167	2.06*	Yes
CS <--- Traditional Service Quality	0.365	4.95***	Yes
EXP <--- Traditional Service Quality	-0.093	-0.756	No
SEXP <--- CV	0.733	7.45***	Yes
CS <--- CV	0.525	3.53***	Yes
EXP <--- CV	-0.300	-1.228	No
CS <--- SEXP	0.110	0.803	No
EXP <--- SEXP	0.647	3.68***	Yes
EXP <--- CS	0.428	3.27***	Yes

**Notes:** \*\*\*( $p < 0.001$ ), \*\* ( $p < 0.01$ ), \* ( $p < 0.05$ )

$\chi^2 = 75.66$ ,  $df = 50$ ,  $RMSEA = 0.036$ ,  $GFI = 0.99$ ,  $TLI = 0.99$ ,  $NFI = 0.97$ ,  $CFI = 0.99$

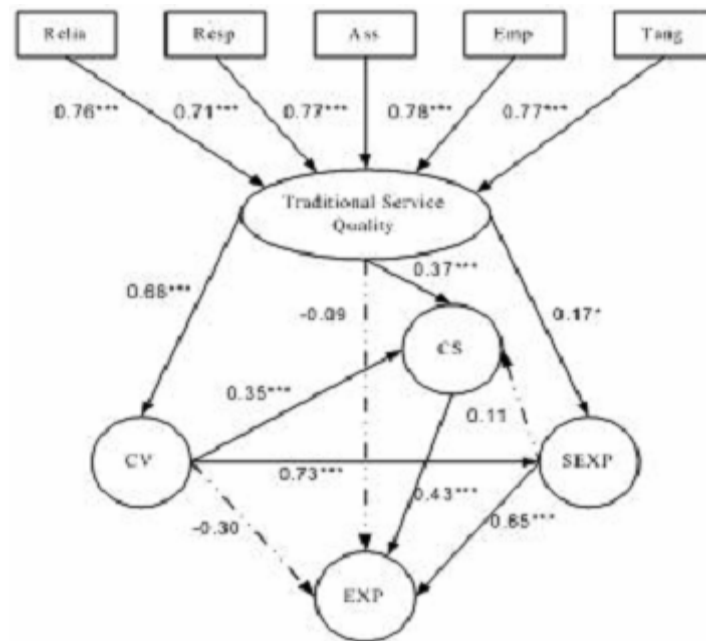


Figure 1. Summary of findings

### Conclusion and Managerial Implication

Businesses have increasingly sought competitive advantage through rapid developments in information technology and the internet. However, implementing e-service without truly understanding the effects of traditional service quality on a) current customer satisfaction and b) intention to use e-service can hinder success.

In reviewing existing literature, there is a paucity of analysis which considers the relationship between traditional service and e-service for businesses, and especially in circumstances where they want to change service offerings to e-service. This research examines the formation of intention to use e-service by considering current traditional service quality,

customer satisfaction, customer value, and service experience in the context of the Thai telecommunication industry.

### The Important Factors in Forming Intention to Use e-Service

From the research findings, all five variables, traditional service quality, customer satisfaction, customer value, and service experience were found to be important factors in forming intention to use e-service. However, some variables showed a direct effect while some showed an indirect effect. In specific terms, service experience and customer satisfaction showed a direct effect, but traditional service quality and customer value showed an indirect effect on intention to use e-service. This study confirmed the

work of Cronin, Brady and Hult (2000) that service quality, satisfaction, value, and service experience are directly related to future behavioural intentions when all of these variables are considered collectively. Also, the indirect effects of service quality and value on future intention are similar to those found by Cronin, Brady and Hult (2000).

### **Suggestion for Landline and Mobile Companies in Creating e-Service Intention**

To be successful with a new service, a telecom company needs to understand how to create a new service intention and what factors relate to this issue. The findings of this research make a number of significant suggestions to landline and mobile companies in creating e-service intention and these suggestions will provide significant benefits to both landline and mobile companies performing in the global telecom market.

For both landline and mobile companies, the important findings from these research results relate to creating positive service experience for the customer that will lead to high customer satisfaction and high intention to use e-service. The positive service experience of a telecom company is the result of quality of service and communications from the telecom company staff, including service staff, sale team, maintenance team, receptionists or any front-line employees who have a chance to contact customers. For this reason, training about technology knowledge, interpersonal skills and how to serve the customer right at the first time are definitely necessary to ensure that they cre-

ate a distinct impression on customers.

Furthermore, this research has also shown the important role of value perception. When a customer perceives a high level of service quality, they also assess and perceive value of service that will be represented as a cognitive reference in any further purchases. For this reason, the telecom company should provide customers with outstanding and consistent service quality that will be a strong indicator of value perception, customer satisfaction and new service intention respectively. Value perception in a telecom service can be created by setting service criteria, called service level agreements (SLA). The service level agreement will be a service reference level for customers and a minimum standard service for the telecom company to achieve.

### **Limitations and Future Research Directions**

The scope of this research focuses particularly on the telecommunication industry in the specific location in Thailand, so the relationships in one service category may not be applied to other locations or industries. Further, this research is cross-sectional research at a particular time and the time factor becomes an important factor in considering the customer's point of view. Because the telecommunication industry is a high-tech industry, the time factor will definitely affect the customer's perception about service. However, this research has been conducted at an appropriate time in Thailand because the e-service is still not fully developed to serve the customers. A few of e-services



have been implemented and telecom companies have planned to use e-service as another main channel for offering service to customers.

The research findings and the limitations in this research provide directions for future research in the area of service marketing. More research about joint analysis of e-service and traditional service is needed for a better understanding of how current service experience develops expectations regarding a new service. Furthermore, some factors may have to be included in further study such as firm performance, firm image, social responsibility, service delivery, the development of pre experience or the impact of other customers. In terms of methodology, future research could also be focused on longitudinal studies of customer perceptions to fill the gap of cross-sectional limitation. Future research would benefit from using methods other than a quantitative analysis to reconfirm the effects of traditional service quality, customer satisfaction, customer value, service experience and intention to use e-service.

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