

## The Effect of Service Quality of Internet Insurance on Intention to Purchase Online

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### Abstract

*With the development of information technology making it easier to share information and increasing the number of insurance consumers accustomed to using digital devices, interest in Internet insurance, in which insurance companies and insurance consumers decide their choice of insurance products on their own, is gradually increasing. Internet insurance is expected to grow dramatically due to its convenience of use, low insurance premiums, composition of consumer-oriented products, and various information disclosure and comparability with other companies. This study analyzes the relationship of service quality elements in Internet insurance with intent to use, user satisfaction, and intent to purchase. The factors determining the nature of the quality of service were classified into the swiftness of the transaction, autonomy of choice, competitiveness of insurance premiums, and quality of information. A summary of the study is as follows. First, transaction swiftness had a significant effect on the intention to use. It also had a significant effect on user satisfaction. Second, autonomy of choice had no significant effect on the intention to use or user satisfaction. Third, the competitiveness of insurance premiums had a significant effect on the intention to use and on user satisfaction. Fourth, the quality of information had no significant effect on the intention to use or user satisfaction. Fifth, the intention to use had a significant effect on the intention to purchase, as did user satisfaction.*

**Keywords:** *Transaction swiftness, autonomy of choice, competitiveness of insurance premiums, quality of information, intention to use, User satisfaction, intention to purchase*

### 1. Introduction

With the advancement of information technology, information sharing is becoming easier. The number of consumers familiar with the use of digital devices is also increasing, and interest in internet insurance, which consumers decide to purchase on their own, is gradually spreading. Until now, few studies have empirically analyzed the relationship between Internet insurance service quality and intention to purchase from the perspective of insurance consumers.

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Various studies have been conducted on Internet insurance. Previous studies to date have been mainly researching the current status and prospects of the market, utilization plan, utilization performance analysis, activation plan, legal issues in contracts, and quality factors of information systems, but Internet insurance services from the perspective of insurance consumers. Few studies have empirically analyzed the relationship between quality and intention to purchase. Therefore, to secure the competitive advantage of insurance companies facing the dynamic Internet business environment, a rational and systematic approach to Internet insurance service quality management is necessary. In other words, it is necessary to increase the intention to purchase insurance by providing more upgraded new value to insurance consumers through improved service quality and creating a competitive advantage that is superior to other companies.

## **2. Theoretical background**

### **2.1. Service quality of internet insurance**

#### **2.1.1. Transaction swiftness**

Internet insurance contract procedures are different from offline insurance contract methods. Insurance consumers themselves search for information on the Internet, compare various insurance products, select a company and product with the most favorable conditions, fill out an online subscription form, and pay insurance premiums through electronic transfer, etc. It means that an insurance contract is made [1].

#### **2.1.2. autonomy of choice**

The most significant advantage of a non-face-to-face channel is that it can search and compare features and prices of similar products. An exclusive agency channel cannot be compared with other similar insurance products. In addition, channels such as independent agencies and banc assurance that sell insurance products of various companies also have limitations in that accurate product recommendations are structurally impossible due to the problem of agents caused by the remuneration structure and strategic actions between sellers.

#### **2.1.3. competitiveness of insurance premiums**

Internet insurance claims that premiums are 10 to 20% cheaper because their fees are lower compared to offline channels. It also attracts insurance consumers by providing a simulation program that allows consumers to pre-design various insurance products before signing up. Due to direct transactions between consumers and companies, insurance products sold by Internet insurance have higher competitiveness of premiums than products sold through insurance agents.

Internet insurance subscriptions began to increase rapidly when auto insurance sales accelerated and life insurers also developed and sold Internet-only products [2].

#### **2.1.4. Quality of Information**

The face-to-face channel has the advantage of providing a good understanding of the contract details by listening to an insurance agent's explanation of an insurance product and purchasing insurance. Still, unlike an explanation about a high-interest savings-type insurance by an agent, it is possible to subscribe to life insurance that guarantees death benefits.

However, the problem of increasing incomplete sales due to competition in sales performance was constantly pointed out [3].

With the emergence of artificial intelligence sales channels using new high-tech technologies, there is a possibility that many technical problems with consumer convenience and explanation obligations in the insurance sales process that have not been addressed until now will largely be solved. This change is expected to be the driving force behind the growth of non-face-to-face channels [4].

## **2.2. Intention to use**

Younger people under 30, collectively called millennials, prefer conversations through electronic devices to conversations with people. It is a generation that makes a choice. Therefore, if they emerge as a major consumer, current face-to-face channel-oriented insurance sales behavior is expected to change significantly. More than half of consumers in their 20s and 30s have been found to have purchased insurance using a computer or mobile phone or have tried to subscribe [4].

## **2.3. User satisfaction**

A report on customer satisfaction said, "If the performance does not meet the expected level, the customer will be dissatisfied. If the performance matches expectations, the customer will be satisfied. The customer will be delighted if the performance exceeds the expected level." [5]

As a measure of satisfaction, there is the expectation discrepancy paradigm model, which typically believes that customer satisfaction or dissatisfaction is formed by the expectation and performance of a product or service [6].

## **2.4. Intention to purchase**

Intention to purchase refers to a consumer's willingness to purchase behavior and is the link to understanding consumer purchasing behavior. Consumers generally recognize the product they need based on personal needs and environmental factors, evaluate and select the product through an information search process, and show a basic purchasing pattern that leads to purchasing behavior. Therefore, intention to purchase is the degree to which the consumer intends to purchase the product [7]. E-commerce has many advantages, such as convenience of transactions and low margins. However, if consumers perceive that the risk is relatively larger than the benefits obtained from e-commerce, a negative attitude toward the product will arise, and intention to purchase will not be formed [2].

# **3. Research model and research hypothesis**

## **3.1. Research model**

This study analyzed the effects of service quality on intention to use, user satisfaction, and intention to purchase Internet insurance. Based on the SERVQUAL model [8] as a determinant of service quality of Internet insurance, it was reorganized according to the characteristics of the insurance industry and classified into transaction swiftness, autonomy of choice, competitiveness of insurance premiums, and quality of information. The research model is shown in Figure 1.

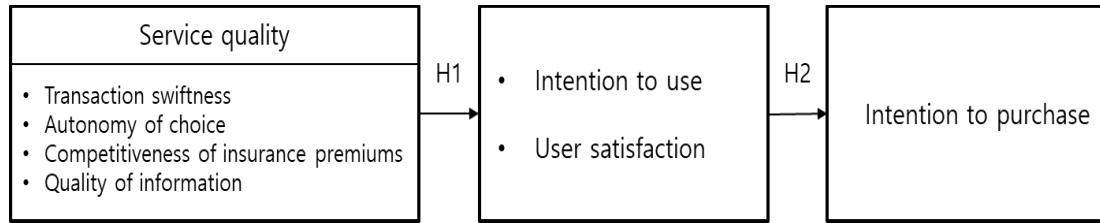


Figure 1. Research model

### 3.2. Research hypotheses

In this study, the following hypotheses were established based on previous studies.

Hypothesis H1-1-1: Transaction swiftness will have a significant effect on the intention to use.

Hypothesis H1-1-2: Autonomy of choice will have a significant effect on intention to use.

Hypothesis H1-1-3: Competitiveness of insurance premiums will have a significant effect on intention to use.

Hypothesis H1-1-4: Quality of information will have a significant influence on intention to use.

Hypothesis H1-2-1: Transaction swiftness will have a significant effect on user satisfaction.

Hypothesis H1-2-2: Autonomy of choice will have a significant influence on user satisfaction.

Hypothesis H1-2-3: Competitiveness of insurance premiums will have a significant effect on user satisfaction.

Hypothesis H1-2-4: Quality of information will have a significant effect on user satisfaction.

In this study, the following hypotheses were established based on previous studies.

Hypothesis H2-1: Intention to use will have a significant effect on intention to purchase.

Hypothesis H2-2: User satisfaction will have a significant effect on intention to purchase.

## 4. Empirical analysis and results

### 4.1. Data collection and sample characteristics

A survey was conducted, and a total of 120 people responded. The introductory statistical survey is as follows: 76% of the respondents were office workers, 76.7% were women, 23.3% were men, and the age distribution was 67.5% for those in their 40s. Also, 70.8% of respondents had experience purchasing Internet insurance, and 60% were currently enrolled.

### 4.2. Method of analysis of data

For the questionnaire analysis, SPSS 22.0 and Smart PLS 2.0, a structural equation package, were used for the basic statistics. Concentration validity tests each factor's factor load value, Construction Reliability (CR), and Average Variance Extraction (AVE). Generally, the factor load value is more than 0.6, the construction reliability value is more than 0.7, and the average variance extraction is more than 0.5. Discriminant validity is unaffected because the average variance extraction's root mean square values are greater than the correlation coefficient. As a result of the factor analysis of the measured items for each variable, one item was removed from user satisfaction.

Table 1. Reliability and internal consistency

Variable	Factor loading	AVE	C. R.	Cronbach's $\alpha$
Transaction swiftness	0.83	0.67	0.84	0.757
	0.76			
	0.725			
	0.697			
Autonomy of choice	0.849	0.654	0.883	0.824
	0.78			
	0.832			
	0.769			
Intention to use	0.898	0.879	0.966	0.954
	0.945			
	0.967			
	0.938			
Intention to purchase	0.938	0.92	0.978	0.971
	0.972			
	0.963			
	0.963			
Competitiveness of insurance premiums	0.669	0.612	0.807	0.681
	0.748			
	0.751			
	0.689			
Quality of information	0.812	0.65	0.881	0.82
	0.838			
	0.836			
	0.733			
User satisfaction	0.883	0.841	0.94	0.905
	0.927			
	0.939			

Table 2. Correlation and discriminant validity

Variable	AVE	1	2	3	4	5	6	7
Transaction swiftness	0.670	0.818						
Autonomy of choice	0.654	0.584	0.808					
Competitiveness of insurance premiums	0.612	0.474	0.544	0.782				
Quality of information	0.650	0.563	0.542	0.543	0.806			
Intention to Use	0.879	0.570	0.529	0.560	0.468	0.937		
User satisfaction	0.841	0.650	0.561	0.563	0.631	0.769	0.917	
Intention to Purchase	0.920	0.554	0.461	0.501	0.448	0.927	0.805	0.959

### 4.3. Verification of the structural model

The coefficient of determination ( $R^2$ ) values for intention to use (0.451), user satisfaction (0.565), and intention to purchase (0.880) were high.

The proposed hypothesis H1 was partially adopted, and H2 was adopted. First, hypothesis H1-1-1, "Transaction swiftness will have a significant effect on the intention to use," was adopted. Transaction swiftness was found to have a significant effect on the intention to use ( $\beta=0.307$ ,  $t=2.715$ ,  $p<0.05$ ). Second, hypothesis H1-1-2, "Autonomy of choice will have a significant effect on the intention to use," was rejected. Autonomy of choice was found to have no significant effect on intention to use ( $\beta=0.162$ ,  $t=1.477$ ,  $p<0.05$ ). Third, hypothesis H1-1-3, "Competitiveness of insurance premiums will have a significant effect on the intention to use," was adopted. The competitiveness of insurance premiums was found to have a significant effect on the intention to use ( $\beta=0.303$ ,  $t=3.181$ ,  $p<0.05$ ). Fourth, hypothesis H1-1-4, "Quality of information will have a significant effect on the intention to use," was rejected. Quality of information was found to have no significant effect on intention to use ( $\beta=0.043$ ,  $t=0.387$ ,  $p<0.05$ ). Fifth, hypothesis H1-2-1, "Transaction swiftness will have a significant effect on user satisfaction," was adopted. Transaction swiftness was found to have a significant effect on user satisfaction ( $\beta=0.340$ ,  $t=3.446$ ,  $p<0.05$ ). Sixth, hypothesis H1-2-2, "Autonomy of choice will have a significant effect on user satisfaction," was rejected. Autonomy of choice was found to have no significant effect on user satisfaction ( $\beta=0.107$ ,  $t=0.963$ ,  $p<0.05$ ). Seventh, hypothesis H1-2-3, "Competitiveness of insurance premiums will have a significant effect on user satisfaction," was adopted. Insurance premiums' competitiveness was found to significantly influence user satisfaction ( $\beta=0.194$ ,  $t=1.964$ ,  $p<0.05$ ). Eighth, hypothesis H1-2-4, "Quality of information will have a significant effect on user satisfaction," was adopted. Information quality was found to significantly affect user satisfaction ( $\beta=0.276$ ,  $t=2.576$ ,  $p<0.05$ ). Ninth, hypothesis H2-1, "Intention to use will have a significant effect on the intention to purchase," was adopted. Intention to use was found to have a significant effect on intention to purchase ( $\beta=0.755$ ,  $t=12.011$ ,  $p<0.05$ ). Tenth, hypothesis H2-2, "User satisfaction will have a significant effect on the intention to purchase," was adopted. User satisfaction was found to significantly influence intention to purchase ( $\beta=0.224$ ,  $t=3.396$ ,  $p<0.05$ ).

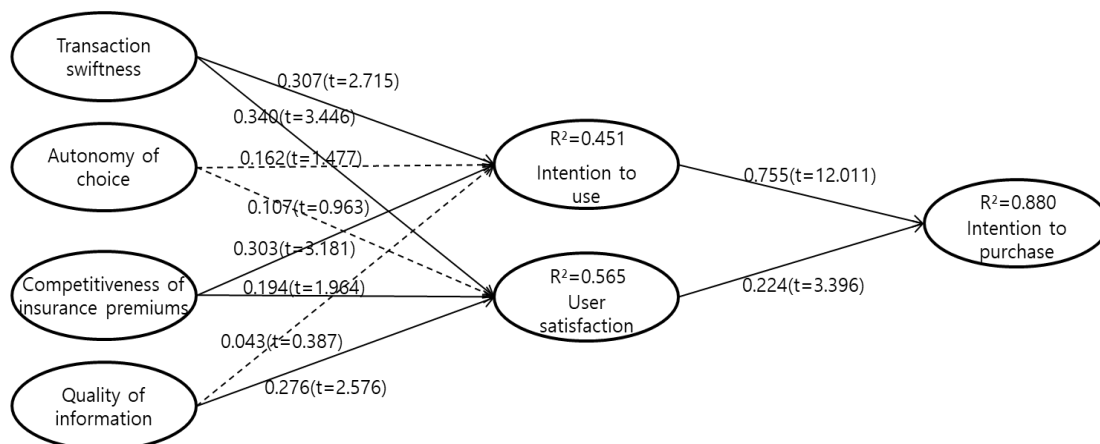


Figure 2. Results of the research model

## 5. Conclusion

In this study, from the perspective of insurance consumers, the determinants of service quality are determined by intention to use and user satisfaction.

To summarize the results of the empirical analysis of this study, first, hypothesis H1-1, that service quality affects intention to use, was partially adopted. Second, hypothesis H1-2, which states that service quality affects user satisfaction, was partially adopted. Third, hypothesis H2-1, that intention to use had a significant effect on intention to purchase, was adopted. Fourth, hypothesis H2-2, that user satisfaction had a significant effect on intention to purchase, was adopted.

The implications of this study are: First, Internet insurance consumers show high intention to use in the order of competitiveness of insurance premiums and transaction swiftness for service quality, and user satisfaction was the highest in the order of transaction swiftness, quality of information, and competitiveness of insurance premiums. In addition, the influence of intention to use on intention to purchase was far ahead of that of user satisfaction. Second, from the perspective of insurance consumers, the spread of voluntary insurance subscriptions using non-face-to-face channels can prevent incomplete sales of face-to-face channels.

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