

## **A Study on Factors Affecting the Continuance Intention of Pension Service for Scientists and Engineers**

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**Abstract.** This empirical study using the SERVQUAL model is on factors that affect a pension Service User's intention to stay insured. The researcher surveyed insured persons of the Pension for Scientists and Engineers. With six independent variables - tangibility, reliability, responsiveness, empathy, utility and stability - the independent variables' respective influence on the intervening variables is analyzed. The results show that reliability, responsiveness, stability and utility are essential elements for a financial welfare service provider, and they have proportional effects on the perceived value. As for an organization that provides online services without branches, it turns out that tangibility and empathy do not affect the perceived value. This study is expected to be used as a fundamental reference for similar studies and help improve the service quality of welfare-related organizations.

**Keywords:** Service, SERVQUAL, Pension

### **1 Introduction**

In Korea, retirement pension plans were introduced less than 10 years ago, and so studies and analyses of these plans have not been active.

In this regard, among factors that influence the intention of individuals to stay insured under the retirement pension system with a focus on scientists and engineers such as those at government-funded think tanks in science and technology, this study aimed to verify factors related to the quality and attributes of service by utilizing the SERVQUAL model and to utilize the results as basic data that can improve the old-age income security system by facilitating Korea's retirement pension market.

## **2 Relevant Studies**

### **2.1 Pension plans**

The Korea has guaranteed a basic retirement income for its people since the introduction of the National Pension System in 1988. In 1994, the Private Pension System was created to have each individual prepare for retirement. In addition, the Retirement Pension System was introduced in 2005.

The Pension for Scientists and Engineers was introduced after receiving approval from employee representatives among members of the Korea Scientists and Engineers Mutual Aid Association under Article 6 of the Korea Scientists and Engineers Mutual Aid Association Act. Employers pay 8.3 percent of the annual income of employees as a legal pension allowance, and staff pay 2.5 percent of their income as an individual share. Based on these financial resources, this plan is operated under the individual instructions of employees using retirement pension products provided by pension-related financial institutions, and its output is used as the source of pensions. Here, the plan is designed to additionally pay the grant for the development of scientific technology up to 2.5 percent of profits gained from the operation of financial sources for the aforementioned.

### **2.2 Service Quality**

A variety of leading models measure service quality including SERVQUAL, SERVPERF, and EP. On service quality, Parasuraman, Zeithaml, and Berry (1988) developed the SERVQUAL model to measure expectations and perceived service quality [1]. Cronin, and Taylor (1992) criticized problems with SERVQUAL and suggested the SERVPERF model, which measures performance that is the result of the provision of services [2]. Teas (1993) suggested problems with SERVQUAL in conceptual and operational terms, and proposed the evaluated performance (EP) model [3].

### **2.3 Customer satisfaction and continuance intention**

Customer satisfaction is an emotional variable that expresses the psychological state resulting from the discordance between the customer's emotion before purchase of a service and his or her experience after using the service. It is differentiated from service quality, which is a relative concept of quality based on the customer's subjective judgement. (Parasuraman · Zeithaml · Berry, 1988).

Biong (1993) defined continuance (repurchase) intention as "the possibility that a customer will continue to use the current service repeatedly in the future" [4].

Oliver (1980) in his study argued that "customer satisfaction influences customer attitudes, and then their intention to repurchase" [5]. Griffin (1995) said "service quality and satisfaction, and repurchase and word of mouth activities have mutually positive relationships" [6].

### 3 Research Model

This study established a research model shown in Figure 3-1.

For independent variables, among the SERVQUAL model's quality factors, tangibility, reliability, responsiveness, and empathy were set as four lower-level variables. In addition, the stability of financial services and the utility of welfare services, which are important attributes in the operation of retirement pensions, were set as lower-level variables. The perceived values of pension services were set as the parameter, and continuance intention was set as the dependent variable.

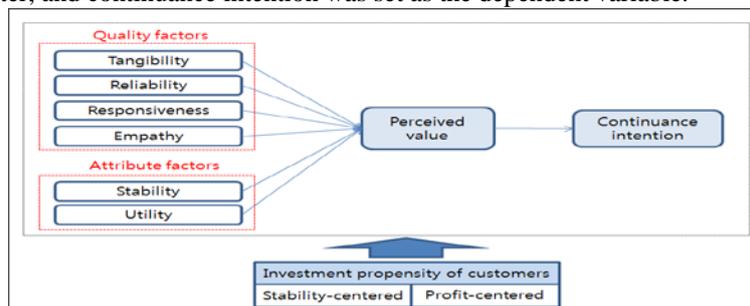


Fig. 3-1. Research model

### 4 Research Results and Analysis

Among members of the Korea Scientists and Engineers Mutual-Aid Association, 461 participated in our survey. Among them, 370 completed their responses, and 351 answered questionnaires were used for a final analysis. The survey was conducted January 15 - 31, 2014 using an online integrated marketing solution. The collected questionnaire data were analyzed using the statistical software SPSS 18.0 and Amos 18.0.

#### 4.1 Verification results for research hypotheses

Figure 4-1 shows the result of applying verification results for this study's hypotheses to the research model.

Among Hypotheses 1 to 6, the tangibility and empathy of pension services were found to have no influence on the perceived value, and thus they were rejected. Reliability, responsiveness, stability, and utility were adopted as they apparently influenced the perceived value. For Hypothesis 7, the perceived value was confirmed to affect the continuance intention of customers.

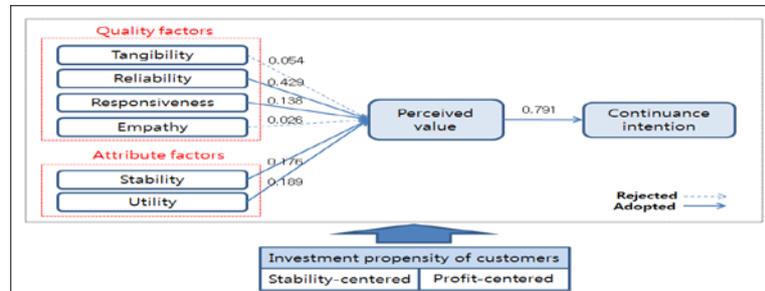


Fig. 4-2. Verification results for research hypotheses

## 5 Conclusion

This study verified the intention of customers to continue using pension services on the level of service quality, and the results verified through this study are as follows. First, customers were found to perceive reliability, responsiveness, stability and utility importantly vis-a-vis pension or welfare institutions, whose main task is the provision of financial services such as pension and installment savings, and customer welfare services, and in particular, organizations such as the Korea Scientists and Engineers Mutual Aid Association. Therefore, these factors were shown to have positive effects on the service quality as perceived by customers. This indicates that reliability, or the ability to accurately deliver promised services, responsiveness, or helping customers and providing services actively, internal and external stability, namely delivering to customers while providing financial services, and utility, or beneficial convenience offered to customers besides pension services, are basic elements that financial and welfare service providers must have [7]. On the other hand, such providers that carry out their tasks via online only, such as pension systems without nationwide offline branches, have no points of contact with customers [8]. Thus, tangibility, which is manifested in the form of visual preferences such as employee appearance and empathy that indicates care and personal attention offered by organizations to customers, were found to have no effects on service quality as perceived by customers. Next, perceived values were found to have positive effects on continuance intention. Having been demonstrated before by numerous studies, this study also proved that customer satisfaction positively influences the repurchase intention of customers, or in other words, the intention to stay insured [9].

In follow-up studies, this study's research model using the method of measuring only perceived services should be expanded and further developed into those using the method of analyzing differences between expected and perceived services [10]. Moreover, the range of subjects must be expanded from retirement pension businesses registered with the Financial Supervisory Service to nationwide regular employees.

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