

A Study of the Effect of Tax Agent Service Factors on Customer Satisfaction: The Mediated Effect of Perceived Value

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This study is based on previous research showing that the service factors of the tax agent affect customer satisfaction. The aim was to examine the effect of the tax agent's service factors on customer satisfaction and to verify that perceived value had a mediating role. The target of study was customers who use tax agency services, and the survey method was used. Survey items were composed of a total of 33 questions, including eight questions about general characteristics and 25 questions related to the variables. The measurement method was a five-point Likert scale. Analysis was conducted using SPSS Version 22. Frequency analysis, exploratory factor analysis, reliability analysis, correlation analysis, regression analysis, mediated effect analysis were all conducted. The analysis showed that the service factors expertise, assurance and perceived quality of tax agents had a positive effect on customer satisfaction. Among the service factors, expertise had the greatest effect ($\beta = .354^{***}$). It also showed that the service factors expertise, assurance and perceived quality of tax agents had a positive effect on perceived value. Among the service factors, perceived quality was found to have the greatest effect ($\beta = .423^{***}$) on perceived value. It was also found that perceived value had a positive effect on customer satisfaction ($\beta = .350^{***}$). Perceived value was partially mediated in the relationship between the service factors of the tax agents and customer satisfaction. In relation to the service factors of tax agents and the effect of customer satisfaction, expertise was found to have the highest effect, and the results of the analysis of perceived value as parameters were also found to have a high effect on expertise. The study showed the importance of perceived value as an effect of service factors of tax agents on customer satisfaction. However, more in-depth research is needed with respect to more diverse service factor variables that could improve customer satisfaction with service use.

Key words: *Tax agency services; expertise; assurance; perceived quality; customer satisfaction; perceived value.*

Introduction

This article discusses a study that examined the factors that influence customer satisfaction with tax agents and that aimed to verify whether perceived value plays a mediating role. Most users who use tax agency services have anxiety about tax investigation due to a lack of understanding of tax law, confusion about financial accounting and a lack of professional staff to perform tax-related tasks. For this reason, customers are willing to engage tax services agencies through accountants, tax accountants and so on (Kang et al., 2010). In Korea, as the tax payment system has been converted to computerisation, competition in the tax agency service market is intensifying following the opening of an international knowledge service market. There is an increasing body of research on the relationship between tax accountants and users of tax agent services (Kim, 2003). The research focused on how satisfied the user is when the tax agent provides services to the user, how satisfied the customer is with the tax representative service activity and which factors are satisfying for the user. The purpose of this study is to create a research model that can explore the effect of the tax agent's service factors on customer satisfaction and to validate it empirically through surveys based on this study. The study explored the effect of the tax agent's service factors on customer satisfaction and the mediating effect of perceived value in relation to the effect of the tax service factors on customer satisfaction.

Background to Tax Agency Service

Tax agency services are a series of processes designed to calculate taxes, to determine the tax amount to be paid, and to file the tax return. *Tax administrative services* involve the government providing all or some of the processes related to an objection to an estimate of tax or insubordination claims. The term *tax agent services* is used if tax experts deal with taxation on behalf of users (Choi, 2017).

Parasuraman (1985) has demonstrated that the quality of services is recognised and assumed by customers through a comparison of expectations and performance, which is detrimental to service quality when the customer perceives that the quality of services and their expectations about the services and recognition of the services are inconsistent (Parasuraman et al., 1985).

Service Factors of Tax Agents

Expertise

For the customer, the expertise of a tax agent refers to the expertise and technical expertise provided by the staff of the tax accountant or tax accountant office of the tax agent service (Kwak, 2017).

Assurance

Ham young-suk (2018) conducted a study looking at effects on customer satisfaction of variables such as professionalism, reliability, assurance, reactivity, empathy and tangibility as components of tax agency service quality. He documented that professionalism, reliability and assurance significantly affect the intention of use. The level of influence was verified by professionalism, assurance and reliability (Ham, 2019).

Perceived quality

Bettman and Park (1980) describe perceived quality as ‘the overall feeling of an invisible brand’, which refers to the overall dimension and reliability of the quality characteristics that consumers perceive in a brand. Consumers say that they perceive perception of overall quality of a specific product rather than remembering the specific characteristics of the product (Bettman & Park, 1980).

Service quality used to be seen as an objective concept in the past, but this definition has changed and is now viewed as subjective in the present, due to a new consumer economic style (Maeng, 2018).

Perceived value

Perceived customer value has been researched from the perspective that service firms must improve perceived value as well as service quality in order to enhance customer satisfaction (Kim & Jung, 2012). Perceived customer value in these studies refers to how customers feel about the profit and benefits of purchased goods, and perceived customer value has been recognised as one of the factors causing customer behaviour (Meng & Jung, 2015).

Customer satisfaction

Customer satisfaction refers to how customers are satisfied after being provided with a product or service, and how they feel compared with their pre-service expectations. In a study of the relationship between evaluation and satisfaction of taxpayer for tax services, service satisfaction

was evaluated in terms of the difference between the taxpayer's expectation for the service and the service level actually provided (Jang, 2005).

The Research Model and Hypothesis

Research Model

Based on the theoretical considerations of previous studies, this study conducted a subjective evaluation of the service provided to customers by tax agents. In addition, a model was constructed to analyse the effects of these evaluations on customer satisfaction with using the services of the tax agent. Expertise, assurance and perceived quality were selected as independent variables in terms of service factors of tax agents. The perceived value of tax agency service was selected as a parameter, and customer satisfaction with tax agent service was selected as a dependent variable. Based on these previous studies, hypotheses were formulated about the relationship between service factors (professional, certainty, perceived quality) of tax agents and customer satisfaction with the services. In addition, a hypothesis was formulated to empirically analyse the mediating effects of perceptual values. The research model is shown in Figure 1.

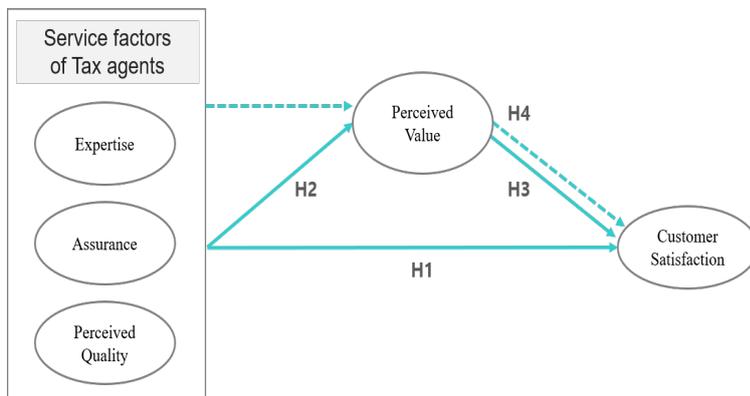


Figure 1. Research model

Research Hypotheses

The research hypotheses have been formulated based on the above background research:

- H1 Service factors for tax agents will have an effect on customer satisfaction**
 - H1.1 Expertise will have a positive (+) effect on customer satisfaction.
 - H1.2 Assurance will have a positive (+) effect on customer satisfaction.
 - H1.3 Perceived quality will have a positive (+) effect on customer satisfaction.
- H2 The service factor of the tax agent will have an effect on the perceived value.**
 - H2.1 Expertise will have a positive effect on perceived value.
 - H2.2 Assurance will have a positive effect on perceived value.

- H2.3 Perceived quality will have a positive effect on perceived value.
- H3 The perceived value of tax agents will have a positive effect on customer satisfaction.**
- H4 Perceived value will play a mediating role in the relationship of tax agent's service factors to customer satisfaction.**
- H4.1 Perceived value will play a mediating role in the effect of expertise on customer satisfaction.
- H4.2 Perceived value will play a mediating role in the effect of assurance on customer satisfaction.
- H4.3 Perceived value will play a mediating role in the effect of perceived quality on customer satisfaction.

Operational definition of variables

Based on the results of the previous research, this study selected the tax agent service factors of professionalism, reliability and perceived quality. In addition, perceived value and customer satisfaction were selected as variables and each variable was measured under the research purpose. The operational definitions of the variables are summarised in Table 1.

Table 1: Operational definition of variables

Study variables	Operational definition	Researcher
Expertise	High level of processing power and technical skill level for various reports, application, and claim of taxes provided by the tax agent	(Kwak, 2017)
Assurance	The ability of service providers to trust customers with expertise, experience, kindness and courtesy, and a service mind	(Kwak, 2017); (Ham, 2019)
Perceived quality	'Overall sentiment to invisible brands' – that is, the overall dimension and reliability of the quality characteristics that consumers perceive for a particular brand.	(Bettman and Park, 1980); (Maeng, 2018)
Perceived value	The degree of customer perception of the value of the tax service provided by the tax agency office	(Kim and Jung, 2012); (Meng and Jung, 2015)
Customer satisfaction	Subjective and emotional thoughts such as disappointment and joy perceived by the product (service)	(Ham, 2019); (Jang, 2005)

Results and Discussion

Research model

The total number of samples used in this study was 228, and the frequency analysis of general characteristics of the distribution of samples was performed. The results showed 84.2 per cent (192) for women and 15.8 per cent (36) for men. The highest age was 46~55 years (37.3%, or 85), followed by 36~45 years (34.2%, or 78). Education was highest for college graduates at 60.5 per cent (138).

An exploratory factor analysis was performed to validate the individual measurement variables. Principal component analysis and the Varimax rotation method were used. Unique values were 1.0 or higher as the selection criteria for the measurement variables. This study conducted a factor analysis three times. The KMO index was 0.925, above the normal level of 0.7. Bartlett's unit matrix showed that the χ^2 (p) value was 0.000, smaller than the general level of 0.05. Therefore, it was judged to be suitable for factor analysis (Choi et al., 2013). Confidence 4 and reliability 5, which are measurement variables that impede judgement validity and concentration validity, were eliminated, and five factors were identified. Reliability analysis uses Cronbach's alpha coefficient to analyse internal consistency to ensure homogeneity between the improved measurement variables in exploratory factor analysis. As a result of reliability analysis, the Cronbach's alpha (α) value of all measurement variables was within the range 0.671~0.892 (≥ 0.6). Therefore, the reliability of all factors seemed to be secured. The results of the exploratory factor analysis and reliability analysis are shown in Table 2.

Exploratory factor analysis of the study yielded unidimensional, and the reliability analysis confirmed homogeneity. Averaging among the measurement variables was performed for correlation analysis. Correlation analysis was performed to find the degree of directionality and density among the averaged variables. Looking at the correlations among the variables, perceived value is highly correlated with customer satisfaction with 0.668 **. Next, the perceived quality and Pearson correlation coefficient were 0.638 **.

Table 2: The exploratory factor and reliability analysis

Measurement item	Exploratory factor analysis (intensive and discriminant validity)					Commonality	Reliability analysis
	Perceived quality	Customer Satisfaction	Perceived value	Expertise	Assurance		Cronbach's alpha
Perceived quality 2	.809	.164	.108	.045	.172	.725	.882
Perceived quality 3	.766	.179	.275	.228	.090	.755	
Perceived quality 5	.739	.239	.171	.133	.124	.665	
Perceived quality 4	.718	.181	.268	.122	.142	.656	
Perceived quality 1	.693	.165	.284	.224	.024	.638	
Customer Satisfaction 4	.279	.776	.206	.263	.109	.802	.889
Customer Satisfaction 2	.176	.763	.239	.268	.043	.744	
Customer Satisfaction 3	.267	.734	.227	.142	.136	.700	
Customer Satisfaction 5	.228	.700	.272	.225	.124	.682	
Customer Satisfaction 1	.096	.639	.273	.186	.264	.597	
Perceived value 3	.172	.273	.793	.183	.095	.776	.892
Perceived value 2	.295	.259	.764	.190	.100	.784	
Perceived value 4	.211	.229	.733	.219	.123	.697	
Perceived value 5	.351	.231	.665	.174	.232	.703	
Perceived value 1	.315	.260	.554	.232	.166	.555	
Expertise 1	.202	.144	.131	.774	.078	.684	.858
Expertise 3	.272	.281	.003	.732	.073	.693	
Expertise 5	.208	.215	.337	.719	.115	.733	
Expertise 4	.116	.203	.312	.697	.160	.664	
Expertise 2	-.037	.181	.205	.659	.277	.588	
Assurance 1	.089	.157	.140	.076	.774	.657	.671
Assurance 2	.163	.061	.172	.236	.746	.672	
Assurance 3	.304	.338	.072	.247	.522	.545	
Eigen-value	3.707	3.475	3.392	3.280	1.861		
% of Variance	16.117	15.111	14.746	14.261	8.091		
% of Accumulated	16.117	31.228	45.974	60.235	68.326		
Kaiser-Meyer-Olkin Sample Fit							.925
Bartlett's unit matrix test	Approximate Chi Square	3173.696	df	253	p-value	0.000	

The correlation analysis of the variables showed a significant correlation ($r \geq .05$). Therefore, it was determined that the causal relationship analysis between the configuration variables was possible. The correlativity analysis results are shown in Table 3.

Table 3: Summary of correlation analysis results

Constructs	N	Mean	Standard deviation	Expertise	Assurance	Perceived quality	Perceived value	Customer Satisfaction
Expertise	228	3.9640	.62229	1	.501**	.484**	.582**	.599**
Assurance	228	3.6023	.68317	.501**	1	.459**	.497**	.505**
Perceived quality	228	3.6096	.61872	.484**	.459**	1	.638**	.573**
Perceived value	228	3.8675	.62333	.582**	.497**	.638**	1	.668**
Customer satisfaction	228	3.8202	.64085	.599**	.505**	.573**	.668**	1

** . The correlation is significant at the .01 level (both sides).

Hypothesis test result

The hypothesis of this study was verified using SPSS version 22. In Table 4, Durbin-Watson was 2.099, which was close to 2, indicating that there was no residual. In addition, since the VIF (variance expansion factor) was less than 10, It means that there was no multicollinearity among independent variables. The results showed that the service factors of tax agents had a positive effect on customer satisfaction. Therefore, the hypotheses H1.1, H1.2, and H1.3 were all accepted. Expertise (.354 ***) was the most influential, followed by perceived quality (.319 ***). The explanation of the effect on customer satisfaction could be said to have 48 per cent of explanatory power based on the adjusted R² value. The results of the hypothesis test on the service factors and customer satisfaction of tax agents are shown in Table 4.

Table 4: Multiple regression analysis

Constructs	B	β	t	p-value	VIF	result
(Constant)	.570		2.529	.012		
Expertise	.365	.354***	6.045	.000	1.498	accept
Assurance	.170	.181**	3.136	.002	1.454	accept
Perceived quality	.330	.319***	5.585	.000	1.421	accept

R²=.486, Adjusted R²=.480, F=70.724(p = <.001), Durbin-Watson=2.099, Dependent variable: Consulting utilization

Figure 2 shows the hypothesis test between the tax agent's service component and customer satisfaction.

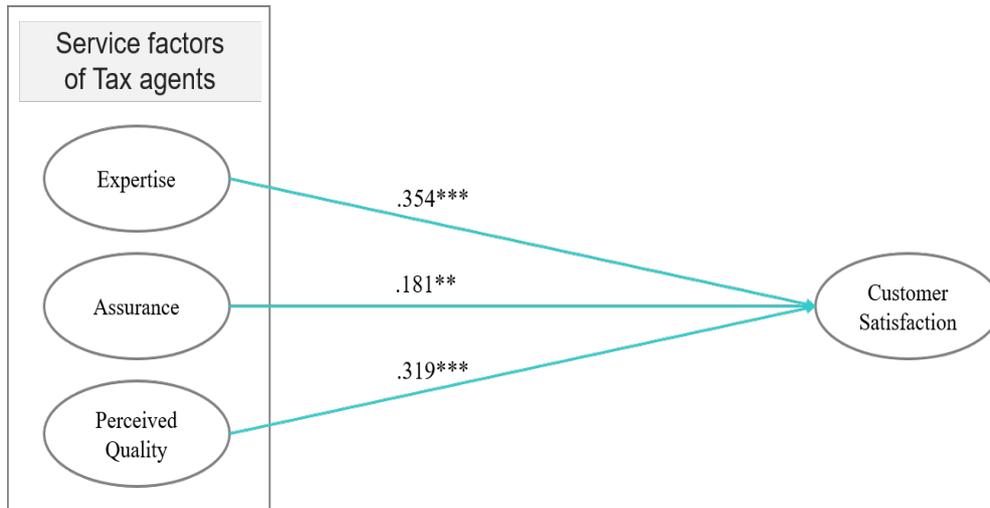


Figure 2: Regression test results

Baron and Kenny's (1986) three-step approach was applied to analyse the relationship between the perceptual value of tax agent services and customer satisfaction. In this way, multiple regression analysis was performed for mediating effect analysis. According to the analysis results, in the second stage the service factors of tax agent had a positive effect on the perceived value. Therefore, hypotheses H2.1, H2.2 and H2.3 were accepted. The perceived value was shown as a partial parameter in the relationship between service factors of tax agents and customer satisfaction in the third stage.

Therefore, hypotheses H4.1, H4.2 and H4.3 were all accepted. In addition, hypothesis H3 was accepted, since perceived value had a positive effect on customer satisfaction. The results of the analysis of the effect of tax agents' service factors on customer satisfaction are shown in Figure 3.

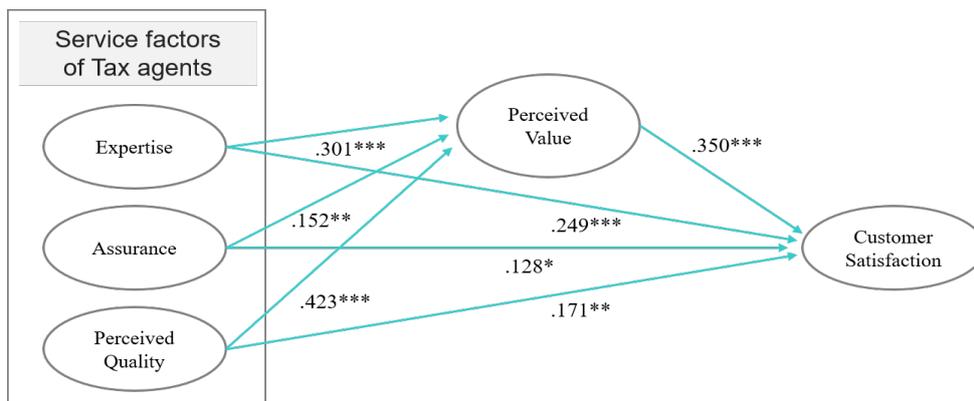


Figure 3: Results on customer satisfaction affected by perceived value of tax agents

Table 5 summarises the results of the relationship analysis of the perceived value of tax agents on customer satisfaction.

Table 5: Mediated effect analysis of absorption

Model	Step1		Step2		Step3		Results
	Dependent variable: Customer satisfaction		Dependent variable: Perceived value		Dependent variable: Customer satisfaction		
	B	β	B	β	B	β	mediating effect
(Constant)	.570		.634		.342		
Expertise	.365	.354***	.301	.301***	.256	.249***	partial mediating
Assurance	.170	.181**	.139	.152**	.120	.128*	partial mediating
Perceived quality	.330	.319***	.426	.423***	.177	.171**	partial mediating
Perceived value					.360	.350***	
R ²	0.486		0.521		0.545		
F	70.724***		81.175***		66.838***		
Durbin-Watson	2.099		2.167		2.111		

p-value: *p< .05, **p< .01, ***p< .001

Conclusion

A rapidly changing economic environment has brought fierce competition within the tax service industry, along with the opening up of the knowledge service market. Tax agents should increase the satisfaction of their customers to gain a competitive advantage. This study verified the effect of tax agents' service factors on customer satisfaction, and empirically analysed their impact on the result of research analysis. The study's findings suggest that continuous education is needed for tax agents to be able to maintain a high level of professional knowledge. In addition, tax agents should provide a quality service with clear information to help customers recognise the benefits the tax agents provide.

This study is based on the questionnaires of participants who have experiences of using tax services in the Seoul and Gyeonggi metropolitan areas. This means there are limits regarding generalisation of the research. In addition, future in-depth research is needed that adds other variables that may affect user satisfaction.

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