

A Study on the Estimation of the Value of Tourists' WTP by Payment Method: Focusing on the Gangwon State

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Received 31 August 2023, Revised 16 September 2023, Accepted 21 September 2023

Abstract

Purpose - This study estimated the value of tourists' willingness to pay (WTP) to develop and promote regional tourism and minimize external effects using the contingent valuation method (CVM).

Design/methodology/approach - To reduce exaggeration bias, a major issue of CVM, a pilot survey was conducted to categorize bid value. Additionally, the payment method was divided into a tourism fund and tourism taxes, and the respondents' answers were reaffirmed in two stages.

Findings - As a result of the analysis, the tourists' WTP was estimated to be 5,132 KRW (3.60 USD) for the tourism fund and 1,036 KRW (0.73 USD) for tourism taxes.

Research implications or Originality - The results of this study provide implications for securing financial resources and establishing policies in Gangwon province, which promotes special self-governing.

Keywords: Tourism Fund, Tourism Taxes, Special Self-Governing Province, Contingent Valuation Method, Willingness to pay

JEL Classifications: L83, Z13

I. Introduction

Tourism is a major industry that generates income for a region and nation (Afthanorhan et al., 2017), providing a major source of overall economic activity (Mahadevan et al., 2017; Uysal et al. 2016). Therefore, tourism is widely recognized as a positive means of promoting economic growth (Chou, 2013), and plays an important role in regional development and growth (Mason et al., 2000; Uysal & Sirgy, 2019). In particular, the development and growth of regional tourism in underdeveloped areas have a higher level of spillovers (Yang & Fik, 2014). Therefore, the development and promotion of regional tourism are evaluated as tools to reduce the gap between regions (Zhou-Grundy & Turner, 2014) and achieve balanced regional development (Li et al., 2016; Seckelmann, 2002).

Tourism is a major socioeconomic force with both positive and negative effects (Uysal & Sirgy, 2019) and it can have a negative impact in terms of the environment and culture of

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the region (Afthanorhan et al., 2017; Nawijn & Mitas, 2012). The rapid growth of regional tourism increases regional imbalance and inequality (Li et al., 2016; Pratt, 2015) and negatively affects social cohesion (Komlos, 2018). However, the cost of these external effects is borne by local residents, not tourists.

Therefore, it is necessary to minimize the negative impact of tourism from a long-term and sustainable perspective and to prevent the cost of external effects from being passed on to local residents. In particular, tourism taxes which impose taxes on tourism-related goods and services and funds which are voluntarily paid by tourists are used in tourism development policies as a means to minimize negative external costs and alleviate poverty and income inequality in the community (Holden, 2013).

From this point of view, this study selected Gangwon province, the Republic of Korea as the subject of the study. Gangwon province is an underdeveloped area compared to other regions, but it is a major destination for domestic tourism. In particular, Gangwon province has been designated as a Gangwon State and the development and discovery of various special projects related to tourism are at an important point. Moreover, this study attempted to overcome the limitations suggested in previous studies related to the CVM. First, in order to overcome the limitations of the payment method, the fund and the tax method were implemented separately. In addition, this study related to the promotion of 'special self-governing province (state)' has policy implications. Therefore, using the contingent valuation method (CVM), this study analyzed the intention of tourists visiting Gangwon province to pay additional costs for the preservation and protection of the community and the development and promotion of regional tourism.

Therefore, the results of this study can help managers and policymakers make decisions and can provide information to stakeholders and communities about the value and importance of regional tourism. Particularly, in the establishment of the Gangwon State, it can be used as basic data for securing financial resources to promote special projects and establish policy.

II. Literature review

1. The Impact of Tourism

Tourism increases regional gross regional product; creates new job opportunities, labor income, and tax revenues (Lacher & Oh, 2012); and provides a major source of overall economic activity (Uysal et al., 2016). Additionally, tourism is a major industry that generates income from regions and countries (Afthanorhan et al., 2017), and has the potential to create positive external effects (Li et al., 2016). Especially, regional tourism development and growth in under-developed regions lead to a higher level of spillovers (Yang & Fik, 2014). Therefore, tourism is widely recognized as a positive means of promoting economic growth (Chou, 2013), this importance of tourism has been recognized by previous studies and policymakers (Calero & Turner, 2020).

Additionally, tourism has a socio-cultural effect through the improvement of local services, infrastructure development, and participation in community-based tourism (Afthanorhan et al., 2017), and can lead to the development of education and healthcare (Brunt & Courtney, 1999).

Moreover, tourism emphasizes sustainable economic growth, quality jobs, and the alleviation of inequality as the main goals of sustainable regional development (Kronenberg & Fuchs, 2021). The promotion and development of regional tourism are evaluated as a tool to achieve balanced regional development by narrowing the gap between regions (Li et al., 2016; Zhou-Grundy & Turner, 2014).

On the other hand, tourism has a negative impact in terms of the local environment and culture (Afthanorhan et al., 2017; Nawijn & Mitas, 2012). Here, the unequal growth of regional tourism could widen regional inequality (Li et al., 2016; Pratt, 2015). Further, if tourism workers are women or migrants, their situations are characterized by low pay and unstable working conditions (Ioannides & Zampoukos, 2018). As such, tourism increases the gap between income classes, paying a high social price for economic growth which, in turn, negatively affects social cohesion (Komlos, 2018). In this regard, tourism blames the government's plan to grow the tourism sector for higher prices of goods and services in the region (Ormond et al., 2014). Additionally, local residents believe that the income from tourism benefits only some people in the community (Webster & Ivanov, 2014).

As such, tourism has a significant economic, social, and environmental impact on the region (Afthanorhan et al., 2017). From a long-term and sustainable perspective, it is necessary to minimize the negative impact of tourism and maximize the positive impact. Particularly, the taxation imposed on tourists can be used to address these negative externalities (Mahadevan et al., 2017). Non-resident tourists do not pay for congestion, pollution, environmental damage, or the use of public goods caused by their visits (Mahadevan et al., 2017). Therefore, tourism tax can correct the balance while playing the role of placing the burden of costs on tourists who cause these costs. Tourism taxes can also be used to alleviate poverty in the form of more direct distribution (Mahadevan et al., 2017). Further, unlike most other taxes, tourism taxes have an efficiency effect and welfare losses are minimized by changes in consumer and producer surplus caused by the tax (Gooroochurn & Thea Sinclair, 2005). Therefore, imposing taxes on tourism-related sectors is being used in tourism development policies as a means to alleviate poverty and income inequality (Holden, 2013). It is also used as a source of financial resources for promoting and repairing tourist attractions (Mahadevan et al., 2017).

Therefore, it is necessary to increase the tax rate on tourism-related products and alleviate poverty and income gaps through direct distribution (Mahadevan et al., 2017). However, the imposition of tourism taxes on tourists can have an overall benefit to the local economy, but it can adversely affect the tourism industry (Forsyth et al, 2014). The compulsory taxation of tourists can lead to psychological resistance to consumer spending. Accordingly, it is necessary to explain the negative external effects to tourists and induce them to voluntarily pay for external effects. Particularly, it is possible to secure financial resources in the same form as funds. The fund can be operated flexibly with funds accumulated for a specific purpose

2. Special Self-Governing Province and Tourism

The Special Self-Governing Province is an administrative district of the Republic of Korea, which is almost identical in function to a province but is guaranteed high autonomy under relevant laws. Gangwon province is the area most affected by the 1950 Korean War and is currently the only divided local government in the world (Jung, 2019).

Gangwon province played an important role in Korea's security, forests, water sources, and energy due to its geographical location and abundant natural environment. However, Gangwon province has difficulty in securing regional development and new growth engines due to various overlapping regulations such as military, forest, and land (Jung, 2019; Kim & Lee, 2013; Kim, 2019). Additionally, the absence of large cities, weak regional competitiveness, and continuous population decline are a reality (Kim, 2019), requiring an opportunity for the region to leap forward in terms of balanced national development. To this end, Gangwon province made efforts to be designated as a "Special Self-Governing province." As a result, on May 29, 2022, the related bill was passed at the plenary session of the Korean National Assembly.

The Special Act on the Establishment of Gangwon Special Self-Governing Province, which was promulgated as a bill, contains declarative content that gives the status of a special self-governing province in consideration of the specificity of Gangwon province and recognizes high autonomy. It also includes financial special cases to secure stable finances by establishing a separate account for balanced national development for the development of Gangwon special self-governing province (Korean Law Information Center, 2022).

Gangwon province is a major tourist destination for domestic tourism (Ministry of Culture, Sports and Tourism, 2021). Therefore, special projects for tourism development and promotion should be discovered and special included in the special law. Tourism is an important driver of regional development (Calero & Turner, 2020) and plays an important role in areas without new and alternative economic activities (Mason et al., 2000). Thus, Gangwon province is facing an important time in designating a 'special self-governing province (state)' and discovering special projects. Additionally, it is crucially necessary to respond with ways to prepare financial resources for promoting special projects.

Additionally, it is expected that the number of tourists visiting Gangwon State will increase through the promotion of various special projects. Tourism revitalization plays an important role in regional development and regional economic development (Afthanorhan et al., 2017; Calero & Turner, 2020; Uysal et al., 2016). However, the increase in the inflow of tourists has a negative effect on the social and cultural environment of the region (Afthanorhan et al., 2017; Movono et al., 2018). Therefore, policies to minimize these negative effects and keep the local social and cultural environment pleasant are required and financial resources should be prepared to implement them.

3. Contingent valuation method (CVM)

The contingent valuation method (CVM) is a method of presenting a hypothetical situation and estimating the economic value of non-market goods (Carson & Hanemann, 2005; Choi et al., 2021). The CVM can quantitatively estimate the economic value of the resource and can estimate both its use value and its non-use value (Jeon & Yang, 2021; Lee & Han, 2002; Lee, 2015). As a result, using CVM can measure respondents' WTP in both qualitative and quantitative aspects (Lee & W. Mjelde, 2007; Portney, 1994). Therefore, CVM is useful for estimating the economic value of tourism products or tourism resources with non-market characteristics (Jeon & Yang, 2021); so it is used as empirical evidence to support the field of tourism research (Choi et al., 2015).

The main rationale for CVM is to analyze respondents' willingness to pay in a set hypothetical

scenario (Choi et al., 2021). Therefore, if the hypothetical scenario presented is not realistic, it may complicate the respondent's understanding (Choi et al., 2015; Park & MacLachlan, 2008). This could lead to hypothetical bias (Hausman, 2012) and distort participants' responses to exaggerate WTP (Cookson, 2003). So, to reduce virtual convenience, respondents need to re-confirm their answers through material statements such as actual payment methods (Choi et al., 2021; Lee, 2015).

As a question form for estimating the WTP of respondents, the CVM is largely divided into open-ended or closed-ended questioning methods (Choi et al., 2021; Jeon & Yang, 2021). Open-ended questions are easy to manage in a way used to reduce starting-point bias (Walsh et al., 1984). However, because of large gaps, non-response, and protest bids by respondents (Mitchell & Carson, 2013) problems are created that undermine the reliability of respondents' strategic behavior and analysis results (Hanemann, 1994).

On the other hand, closed-ended questions are mainly used by DC (dichotomous choice). The DC questions consist of questions that can be answered "yes" or "no." DC is preferred because it minimizes the burden on respondents (Hanemann, 1994), increases the likelihood of responding, and is similar to actual market decisions (Lee & W. Mjelde, 2007; León & Araña, 2016). It is also frequently used to estimate respondents' WTP to facilitate response processes that can minimize strategic bias (Choi et al., 2021).

The use of the CVM allows researchers to measure respondents' WTP in both qualitative and quantitative aspects (Portney, 1994; Lee & W. Mjelde, 2007). As a result, it is used as empirical evidence in tourism research (Hwang et al., 2020). Previous studies have utilized CVM to examine a variety of fields, including festivals (Andersson & Lundberg, 2013; Choi et al., 2015), cultural heritage (Ruijgrok, 2006; Choi et al., 2021), environmental and natural resources (Ji et al., 2018; Jin et al., 2019; Hwang et al., 2020), and cost estimation during the COVID-19 pandemic (Qiu et al., 2020; Jeon & Yang, 2021).

III. Methodology

1. Research Design and CVM Setup

This study developed a questionnaire to measure the WTP of tourists. In the questionnaire, a hypothetical scenario was set considering the study purpose. The questionnaire is organized to include measurement items that can affect tourists' WTP and, to secure the measurement items' consistency, reliability, and validity was based on criteria used in previous studies. The questionnaire was largely composed of four sections. The first section asked respondents for their consent to proceed with the survey. Respondents were informed about the purpose of this study and that their identities would remain anonymous under "Article 33 (Secret Protection) of the Statistics Act."

The second section focused on tourists' perceptions. Considering this study's purpose and its focus on the payment method, it paid attention to the constructs that may affect tourists' willingness to pay. The measurement items of each construct were derived through reviews of previous studies (Rathnayake, 2016; Choi et al., 2021; Sadiq et al., 2021; Hassan & Meyer, 2022) and adjusted according to the study's purpose. Each item was verified by experts in

Q2-1 (Tourism Fund): (If you answered 'yes' to Q1) If the bid value (A) is the 'Tourism Promotion and Environmental Conservation Fund' (once a year), would you be willing to pay for it?

- ① No
- ② Yes

Q2-2 (Tourism Taxes): (If you answered 'yes' to Q1) If the bid value (A) is 'Tourism Taxes' to be paid whenever you visit tourist attractions or facilities designated by the Governor of Gangwon province, would you be willing to pay for it?

- ① No
- ② Yes

The last section of the questionnaire is an item for distinguishing the socio-demographic characteristics of respondents. These constructs can potentially affect tourists' WTP and have been used as important constructs in previous studies (Broberg, 2010; Choi et al., 2021; Jeon & Yang, 2021; Lee & Han, 2002; Qiu et al., 2020; Seetaram et al., 2018).

2. Measurement model

In this study, the DC-CVM was used to provide information about secure financial resources for special projects related to tourism in the process of establishing Gangwon State (special self-governing province) and estimating tourists' economic willingness to pay for regional tourism promotion and environmental conservation. The respondents' answers in the CVM are based on the utility maximization theory (Manski, 1977). Here, the respondents are likely to compare the utility generated by "agree" or "disagree" to pay for a given value and choose a utility with greater value (Choi et al., 2021; Lee, 2015). Therefore, the utility function for willingness to pay the randomly given bid value (A) can be presented as equation (1) (Hanemann, 1989), and the probability formula can be expressed as equation (2).

$$u_j = v_j(q_j, Y, S, P) + \epsilon_j, \quad j = 1, 0 \tag{1}$$

$$v_0(q_0, Y, S, P) + \epsilon_0 \leq v_1(q_1, Y - A, S, P) + \epsilon_1 \tag{2}$$

where v is an indirect utility that is explained by an observable variable; Y represents the individual's monthly income; A denotes a payment amount to "tourism fund" or "tourism taxes;" S symbolizes individual social and economic characteristic vector (gender, age, marital status, educational level, monthly income); P stands for the perception rating of respondents (tourists' attitude, social contribution, environmental conservation); ϵ is independently distributed random variables with 0 means.

Therefore, the probability of responding "yes" to the (A) is expressed by equation (3). As demonstrated in equation (4), it is possible to compare the utilities between "yes" and "no" for WTP (A).

$$P_1 = P_r\{WTP\} = P_r\{v_1(q_1, Y - A, S, P) + \epsilon_1 \geq v_0(q_0, Y, S, P) + \epsilon_0\} \tag{3}$$

$$\Delta v = v_1(q_1, Y - A, S, P) - v_0(q_0, Y, S, P) \tag{4}$$

The respondents are asked to answer “yes” or “no” to whether to pay the given value (A). Therefore, the dependent variable is discrete data with 0 or 1; a logit model by maximum likelihood estimation (MLE) is used to estimate the probability of a given bid value (A) (Choi et al., 2021; Jeon & Yang, 2021; Lee & Han, 2002). In particular, the truncated mean WTP is preferred because it satisfies the conditions of efficiency with aggregation ability, statistical consistency, and theoretical constraints (Duffield & Patterson, 1991). In this study, the WTP truncated mean was also employed to estimate tourists’ WTP as follows.

$$WTP_{truncated} = \int_0^{Max\ A} f_{\eta}(\Delta v) d = \frac{1}{\beta} \ln \left(\frac{1 + \exp(\alpha)}{1 + \exp(\alpha + \beta \text{Max } A)} \right) \quad (5)$$

3. Data collection

The survey for data collection was conducted twice, divided into a pilot test and main survey. The expression and appropriateness of the initial instrument of the survey were reviewed by academic experts. A pilot test was conducted with tourists (200 samples) who visited Gangwon province within one year. This pilot test included open-ended questions to derive a range of bid values. Then, the questionnaire of the survey was finally confirmed by refining construct reliability and validity, derived from the range of the bid value.

The main survey adopted an online survey method. This method can increase response rates by keeping survey costs low and increasing their ease of use (Kim et al., 2018). In particular, online surveys have the advantage of easily accessing hard-to-reach populations (Kim & Li, 2009). According to Stanton (1998), online surveys have no more risk than other types of non-probability samples in terms of the potential for self-selection bias (Kim et al., 2018). Thus, online surveys are believed to be the best sampling method for this research.

For sampling, allocation sampling by region, age, and gender according to the Korean population census was used. The survey was commissioned by a survey company specializing in online surveys. The online survey was conducted from September 13 to October 10, 2022. An e-mail invitation that explained the purposes of the research and provided a link to the web-based survey was distributed to a panel that belongs to the online survey company. A total of 3,650 questionnaires were distributed and retrieved. Additionally, ineligible and invalid responses were removed during data processing, and 3,636 observations were finally used for analysis.

IV. Results

1. Demographic Profile

Respondents’ socio-demographic characteristics are shown in Table 1. For both types (Tourism fund and Tourism taxes), the proportion of males was slightly larger (51.0%, 51.8%) than females (49.0%, 48.2%). In terms of age, the respondents in their 50s (30.0%, 28.3%) and 40s (22.5%, 21.7%) were higher than other ages, and more than half of the respondents were married (58.1%, 59.0%).

Most respondents had a beyond university education and earned 2.00-3.99 million KRW (approximately 1,400 - 2,800 USD) monthly.

Table 1. Respondents' demographics characteristics

Variable	Category	Tourism Fund (n=1,815)		Tourism Taxes (n=1,821)	
		n	%	n	%
Gender	Male	926	51.0	943	51.8
	Female	889	49.0	878	48.2
Age(years)	20-29	330	18.2	365	20.0
	30-39	368	20.3	349	19.2
	40-49	408	22.5	395	21.7
	50-59	544	30.0	515	28.3
	≥ 60	165	9.1	197	10.8
	Marital status	Single	760	41.9	747
	Married	1055	58.1	1074	59.0
Education	High school diploma	330	18.2	353	19.4
	University student	133	7.3	145	8.0
	Graduated from university	1164	64.1	1158	63.6
	Master's or doctoral degree	188	10.4	165	9.1
Monthly income (Ten thousand KRW)	Below 200	174	9.6	193	10.6
	200 ~ 299	550	30.3	515	28.3
	300 ~ 399	297	16.4	296	16.3
	400 ~ 499	275	15.2	264	14.5
	500 ~ 599	168	9.3	185	10.2
	600 ~ 699	140	7.7	146	8.0
	More than 700	211	11.6	222	12.2

2. Reliability and Validity of the Measurement

In this study, tourists' perceptions were included in addition to socio-demographic variables as factors affecting WTP. Tourists' awareness was classified into the attitude of tourists, social contribution, and environmental conservation by referring to previous studies. As there are more than two constructs, it is necessary to secure reliability and validity.

Cronbach's alpha and CFA (confirmatory factor analysis) were used to test the reliability and validity of the measurement of the awareness of tourists. Table 2 shows the results of the reliability and validity tests. All Cronbach's α 's exceeded 0.7. Therefore, the constructs were reliable (Hair et al., 2014, 2014). CAF was used to test the validity and reliability of the measurement model (Hair et al., 2014). The CFA results indicating the index values that ensure the adequacy of the measurement model are presented in Table 2. These results are satisfactory based on the recommended level of goodness-of-fit, which means that the measurement model fits the sample data (Hair et al., 2014).

Table 2. Validity and reliability measurements

Constructs and items	Tourism Fund				Tourism Taxes			
	Cronbach's alpha (α)	Std. Loading	CR	AVE	Cronbach's alpha (α)	Std. Loading	CR	AVE
Social Contribution (SC)	.721		.601	.818	.719		.569	.796
Tourism contributes to the local community		.724				.737		
Regional tourism contributes to the expansion of employment in local community		.765				.746		
The profits generated from regional tourism are returned to the local community		.670				.571		
Environmental Conservation (EC)	.871		.780	.914	.856		.769	.909
Tourists should try to reduce waste and save energy in the region		.775				.742		
Regional tourism should be environmentally friendly		.872				.871		
Tourists should try to reduce environmental pollution		.856				.844		
Attitude (AT)	.851		.0781	.914	.855		.777	.913
I think regional tourism is a positive move		.807				.813		
I think tourism is a valuable act for region		.833				.841		
I think regional tourism is a beneficial action		.792				.793		

Note: Goodness-of-fit indexes (Tourism Fund): $\chi^2/df=6.852$, CFI=0.983, GFI=0.980, NFI=0.980, TLI=0.974, RMR=0.019, RMSEA=0.057.
 Goodness-of-fit indexes (Tourism Taxes): $\chi^2/df=6.359$, CFI=0.984, GFI=0.982, NFI=0.981, TLI=0.976, RMR=0.018, RMSEA=0.054.
 All loadings of the reflective measurement model are significant ($p < .001$). CR=construct reliability; AVE=average variance extracted.

Construct validity was determined by testing convergent validity and discriminant validity (Fornell & Larcker, 1981; Ping, 2004). Convergent validity was tested by calculating CR (construct reliability) and AVE (average variance extracted). The CR met a value of 0.7 or higher as presented by Hair et al. (2014) and the AVE value exceeded the threshold of 0.5 recommended by Fornell and Larcker (1981). These results ensure convergent validity as shown in Table 2.

The discriminant validity was evaluated through AVE and compared with the squared correlations between the constructs. As a result of the analysis (Table 3), the squared correlations did not exceed the AVE, ensuring discriminant validity (Fornell & Larcker, 1981; Ping, 2004).

Table 3. Construct validity of the measurement model

	Tourism Fund				Tourism Taxes			
	SC	EC	AT	Mean (SD)	SC	EC	AT	Mean (SD)
Social Contribution (SC)	.775			3.83 (0.646)	.754			3.84 (0.666)
Environmental Conservation (EC)	.500	.883		4.23 (0.721)	.483	.877		4.27 (0.696)
Attitude (AT)	.639	.583	.884	3.98 (0.643)	.634	.593	.881	3.99 (0.666)

Note: The bold numbers on the diagonal are the AVE. Off-diagonal numbers are the squared correlations among constructs. All correlations are significant at the 0.01 level or higher.

3. Determinants and Estimating value of WTP

In the process of establishing a Gangwon State and promoting special projects, tourists were asked about their WTP for additional costs to develop and promote regional tourism, and preserve the local society, culture, and environment. Table 4 and Figure 1 show the respondents' answers to the questions about WTP and information on the probability.

Additionally, questions were asked in two steps to minimize respondents' hypothetical bias and ensure the reliability of their responses. Those who answered "yes" to WTP_1 presented only with bid value (A) were presented again with the actual payment method options "Tourism Fund" or "Tourism Taxes" and asked questions. It was found that the response rate to WTP_2 was high when the bid value was low, such as WTP_1. Additionally, the WTP_2 graph line was lower than the WTP_1 graph line. The lower "yes" response rate and the decrease in the lower line in the question over two steps that present the actual payment method can be interpreted as a reduction in the exaggerated bias in the hypothetical scenario (Choi et al., 2021).

A binomial logit model was used to estimate tourists' WTP for additional costs. The analysis results are presented in Table 5. In WTP_1 and WTP2 of the two payment methods, bid value, social contribution, gender, education background, and monthly income were found to have a statistically significant effect. The higher the bid value and education background, the more negatively it affects WTP, and the awareness of social contribution and monthly income were found to have a positive effect on WTP.

Further, the value of the additional cost that tourists want to pay was estimated according to the payment method. The WTP truncated means are shown in Table 6 and Figure 2. In WTP_1, the Tourism Fund was estimated to be 9,907 KRW (6.95 USD) and the Tourism Taxes was estimated to be 2,282 KRW (1.60 USD). For WTP_2, the actual payment method, the Tourism Fund was reduced to 5,132 KRW (3.60 USD) and Tourism Taxes to 1,264 KRW (0.89 USD).

Table 4. Response ration per bid value

Bid value (KRW)	sample	WTP_1			WTP_2			
		Yes	No	Yes(%)	Yes	No	Yes(%)	
Tourism Fund	2,500	302	145	157	48.0	118	184	39.1
	5,000	302	156	146	51.7	120	182	39.7
	7,500	303	138	165	45.5	103	200	34.0
	10,000	302	123	179	40.7	83	219	27.5
	12,500	302	123	179	40.7	93	209	30.8
	15,000	304	107	197	35.2	72	232	23.7
	Total	1815	792	1,023	43.6	589	1,226	32.5
Tourism Taxes	500	305	188	117	61.6	145	160	47.5
	700	304	168	136	55.3	130	174	42.8
	1,000	303	183	120	60.4	141	162	46.5
	1,500	303	172	131	56.8	129	174	42.6
	2,000	302	164	138	54.3	123	179	40.7
	2,500	304	159	145	52.3	122	182	40.1
	Total	1821	1,034	787	56.8	790	1,031	43.4

Note: 1,000 KRW = approximately 0.70 USD.

Fig. 1. Probability of “yes” response regarding WTP

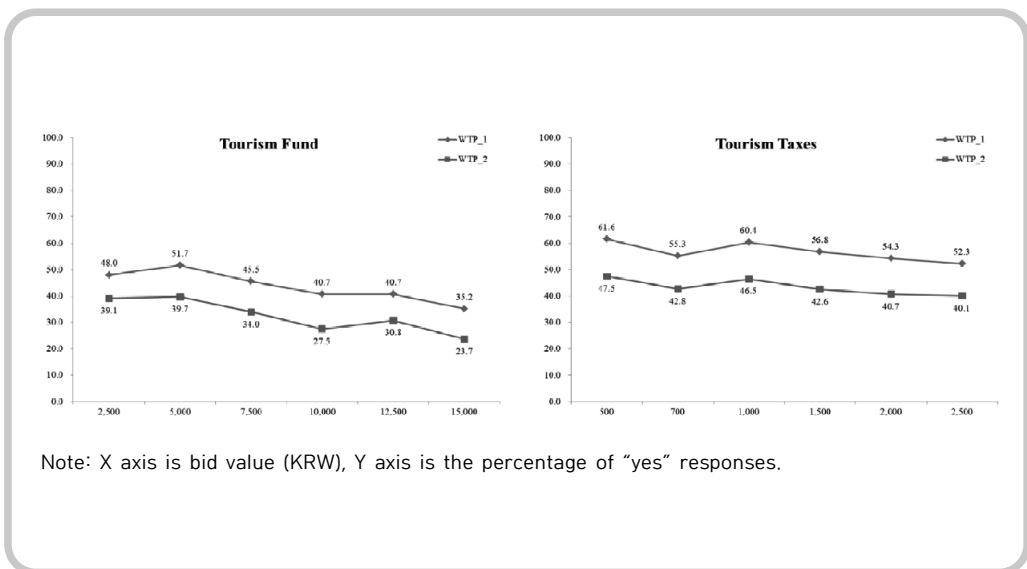


Table 5. Result of the logit models for WTP

	Tourism Fund				Tourism Taxes			
	WTP_1		WTP_2		WTP_1		WTP_2	
	Coeff.	Wald	Coeff.	Wald	Coeff.	Wald	Coeff.	Wald
Bid value	-0.00005***	17.92	-0.00006***	23.907	-0.00017***	6.12	-0.00015*	5.06
Social Contribution	0.35271***	12.23	0.42457***	15.196	0.38004***	15.22	0.45294***	20.85
Environmental Conservation	-0.00865	0.01	0.10709	1.242	0.14721	2.79	0.12051	1.82
Attitude	0.13416	1.55	0.12614	1.247	0.17476	2.80	0.15402	2.02
Gender	-0.27990**	8.08	-0.39819***	14.083	-0.08254**	0.71	-0.26591**	7.03
Age	-0.00838	2.81	0.00142	1.267	0.00351	0.51	0.00318	2.33
Marital status	0.08615	0.46	0.12591	0.46	-0.03190	0.06	0.17274	0.46
Education background	-0.11567*	4.24	-0.15157*	6.180	-0.08201*	2.13	-0.11819*	4.07
Monthly income	0.09516**	11.80	0.09585***	12.467	0.06957***	6.49	0.07830**	10.52
Constant	-1.07665*	6.49	-2.44140***	47.580	-2.28553***	29.09	-2.93121***	61.80
-2Log-likelihood	2410.868		2183.334		2406.755		2390.555	
Cox & Snell R2	0.041		0.056		0.045		0.054	
Nagelkerke R2	0.055		0.078		0.061		0.073	

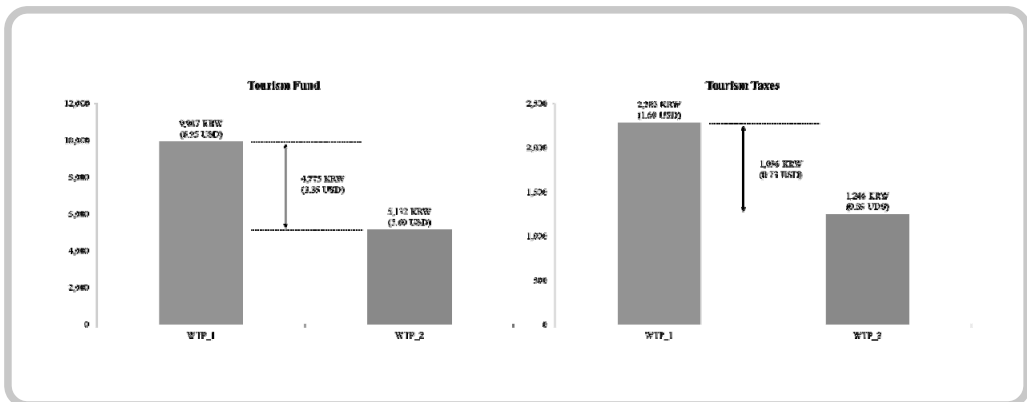
Note: * p < .05, ** P < .01, *** p < 0.001.

Table 6. Value estimation for WTP truncated mean (KRW)

	Tourism Fund	Tourism Taxes
WTP_1 truncated mean	9,907 KRW (6.95 USD)	2,282 KRW (1.60 USD)
WTP_2 truncated mean	5,132 KRW (3.60 USD)	1,264 KRW (0.89 USD)

Note: 1,000 KRW = approximately 0.70 USD

Fig. 2. Comparison of WTP by Payment



V. Discussion and Conclusion

1. Theoretical implications

The main purpose of this study is that in light of Gangwon province being designated as a 'state (special self-governing province)', it estimates the value of securing financial resources to develop and promote regional tourism projects, and minimize negative external effects that occur in the local community. Additionally, a two-step approach and pilot survey were used to reduce and minimize the problem of exaggeration frequently occurring in CVM.

Through this, the tourism fund was estimated to be 5,132 KRW (3.60 USD) and Tourism Taxes was estimated to be 1,64 KRW (0.89 USD). Further, tourists' perception variables were statistically analyzed along with their willingness to pay, and the higher their perception of social contribution, the more positive the WTP was.

The results of this study provide the following implications for literature in the field of tourism. They suggest that regional tourism is being used as a strategy to achieve sustainable economic growth, quality jobs, inequality mitigation (Kronenberg & Fuchs, 2021; Zhou-Grundy & Turner, 2014), and balanced development in tourism (Li et al., 2016; Seckelmann, 2002). However, previous studies on how to secure financial resources for revitalizing regional tourism are insufficient. Additionally, it is necessary to introduce a tourism tax to solve the cost of negative external effects on the community due to the increase in tourists (Holden, 2013; Mahadevan et al., 2017). However, there is little research on how and how many financial resources will be collected. Most of the previous studies on this subject focus on tourists' perception, satisfaction, and intention to visit, so research dealing with economic value is insufficient. From this point of view, this study expanded existing research to the areas of behavior and economics in tourism and analyzed the effect of tourists' perception on payment intention and WTP to support theoretical and empirical evidence.

Moreover, another academic contribution of this study was to minimize the exaggeration bias occurring in CVM research by applying a pilot survey (setting the categories of "given bid value (A)") and a two-stage approach. Additionally, the relationship between tourist perception and payment intention was empirically verified. Particularly, the payment method was divided into tourism funds and tourism taxes and the difference in WTP according to the payment method was presented so that it could be easily recognized. The process of adopting and carrying out these research methods further strengthens and supports the results of previous studies.

Additionally, it was found that tourism's social contribution plays an important role as a factor affecting tourists' WTP. These results are in the same context as the results of previous studies that emphasize the importance of tourism's social contribution and provide empirical support. Therefore, this study supports the role and importance of social contribution in the behavior of individual tourists who participate in local tourism.

Furthermore, major socio-demographic factors affecting WTP were presented. In particular, bid value supports the results of previous studies (Armbrecht, 2014; Choi et al., 2021; Jeon & Yang, 2021; Qiu et al., 2020) that show bid value has a negative relationship with respondents' WTP. Additionally, monthly income is also a determinant that has a positive effect on WTP, reflecting the same context as in previous studies (Broberg, 2010; Hanemann, 1994;

Seetaram et al., 2018). Therefore, the importance of bid value and monthly income is emphasized as determinants in estimating the WTP of tourists.

2. Practical implications

This study confirmed respondents' WTP to secure financial resources for regional tourism development projects and minimize the external effects on the local community caused by tourism. The results of this study have the following implications for policy establishment and the tourism sector.

First, it was confirmed that respondents' perceptions of social contribution affected WTP. These findings suggest that it is important to minimize the negative impact of regional tourism and achieve sustainable tourism. Regional tourism should reflect an alternative consumption paradigm that brings common benefits to the local community. So, in establishing policies for regional tourism, tourists should be informed of the positive impact on the local community through regional tourism and be encouraged to contribute to the local community. Therefore, it is necessary to continuously inform tourists of the necessity and positive impact of local tourism and increase understanding. To this end, tourism programs for community contributions can be discovered and provided to tourists.

Especially, it is necessary to present tourism programs in connection with "ESG," which have recently attracted attention, to emphasize the benefits provided by tourism to the local community. At this level, tourism companies can use locally produced products and attempt campaigns to preserve the environment and social.

Additionally, Gangwon province can be used as a basic data source to secure financial resources for the creation of 'state (special self-governing province)'. Particularly, this study presented the WTP of one tourist by dividing it into a tourism fund and tourism taxes. These results can be used as basic data for Gangwon province to establish policies to organize financial resources for establishing 'state' and promoting various special projects.

Further, these financial resources for tourism can be used to alleviate poverty and income inequality in the local community and to renovate tourist attractions and tourist facilities. Here, the cost of phenomena (such as overtourism and touristification) and negative external effects caused by the increase in tourists may not be passed on to local residents. This can secure sustainability and strengthen the local community.

The amounts for the tourism fund or tourism taxes presented in this study are relatively low. However, resistance from tourists may occur in situations where additional expenses are to be paid. Securing such financial resources may generate overall profits in the region but may negatively affect the regional tourism industry. Therefore, it is necessary to increase tourists' stay time and expand consumption expenditure to maximize the positive impact on the region. For example, the increase in local consumption expenditure can be induced by presenting the amount (or in proportion) of tourism funds or tourism taxes paid by tourists visiting the region in the same amount of local currency.

3. Limitations and suggestions for future studies

This study has several limitations. This study was conducted in Gangwon province, Republic

of Korea. Above all, this study reduced the negative external effects that occurred in the process of Gangwon province being designated as a 'state (special self-governing province)' and estimated the WTP of tourists for regional tourism development and promotion. However, 'state (special self-governing province)' is a system implemented in the Republic of Korea and may manifest different patterns in other nations. Thus, this study has limitations on generalization and universality.

Moreover, there are some limitations to be addressed in future studies. Factors affecting tourists' WTP vary depending on the research subject. This study extracted and used factors from similar previous studies according to the purpose of the study. In future studies, various additional candidate structures should be considered through a thorough review in terms of behavioral economics in the tourism field.

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