

Estimating Nonmarket Values in Halong Bay, Vietnam: A View from Theory of Planned Behavior

Nguyen Viet Hanh¹, Jemal Abafita¹, Le Doan Hoai², Hio Jung-Shin^{1*}

1. Department of Agricultural and Resource Economics, Kangwon National University, 200-701 Chuncheon, Gangwon Do, Republics of Korea

2. State audit office of Vietnam, 117 Tran Duy Hung Street, Cau Giay District, Hanoi, Vietnam

* E-mail of the corresponding author: hiojung@kangwon.ac.kr

Abstract

The lack of psychological factors in traditional CV model doesn't only influence the explanation of payment behavior, but also it affects the accuracy of the WTP result, which is closely related to the policy making process for natural conservation and environmental improvement programs. Therefore, there is a need to link the psychological factors and to the payment behavior. This paper is started by discussion of some influential causes on validity and reliability of estimation results in traditional CV model, and then introduces a new model that is built from incorporating the theory of planned behavior (TPB) into the CVM. Linear regression model and hierarchical technique was applied for empirical analysis. The results of empirical analysis indicated that if WTP was identified as an expression of individual behavior, then it would be explained preferably by the theoretical framework of planned behavior while still conform to principles in the theory of consumer behavior. The results also shown that the WTP was not only affected by factors like income, cost, personal context, and attributes of environmental good in hypothetical market, but also it was influenced strongly and significantly by psychological factors. Regarding with the reliability of estimation result, this paper investigated that the CV result depends on the number and types of explanatory variables that put into the estimation model. The WTP value, for environmental quality improvement in Halong Bay, Vietnam, was US\$0.60/ person/ trip. An extra charge might be added to the price of entrance ticket.

Keywords: Contingent valuation method, theory of planned behavior, psychological factors, validity and reliability.

1. Introduction

For several last decades, estimating the nonmarket values was usually a complex issue for environmental economists, managers, and scientists. In environmental economics, the contingent valuation method (CVM) is considered as a useful tool in valuing environmental resources. By building a hypothetical market, attributes of environmental goods and services are described in a survey questionnaire to elicit respondent's willingness-to-pay (WTP). At the same time the CVM is also known as a stated preference method (David and Mariel 2010, Richard and Jordan 2011, Haipeng and Xuxuan 2013) that the environmental resource values are obtained through direct consultations with respondents (Ciriacy-Wantrup, 1952). Since the existence values (Krutilla 1967, Juan et al. 2012, Claudia 2013) and quasi-option values (Arrow and Fisher 1974, Rodelio 2007, Cliff 2012) were found to be significant in environmental valuation and had a strong influence on the management of unique and threatened natural resources (Aldy and Krupnick, 2009), the CVM has become a widely used method in many nations covering a number of different fields such as healthcare and transportation, etc (Carson and Michael 2005, Hanh and Shin 2012).

Up to now, the CVM is advanced considerably by theoretical and empirical researchers in both survey questionnaire design and estimation technique like discrete choice experiment, bidding game, open-ended question, conjoint analysis, contingent ranking, single-bounded dichotomous choice, double-bounded dichotomous choice, paired comparisons, and payment card, etc (David and Mariel, 2010). However, the indicators that are associated with the estimation model haven't been addressed clearly by researchers yet. Most previous studies have only centered on indicators such as income, cost, individual demography and some attributes of environment (Carson and Michael 2005, Dagnew et al. 2012, Halkos 2013). This is insufficient to interpret payment behavior for environmental commodity, because environmental commodities do not have inherently any specific price in the market. So the price levels that are reported by respondents can be influenced strongly by psychological factors. On the other hand, the estimation of the model-based WTP value depends absolutely on the number of coefficients of variables in model. To illustrate this, we specify a WTP model, which is assumed to be a linear function as follows:

$$WTP = \alpha + \beta P + \gamma Y + \sum_{i=1}^n \delta_i Z_i$$

, where α , β , γ , δ_i are coefficients of variables, P is price of environmental goods, Y is income of respondents, and Z_i is a set of assumed variables in model. As shown by Hicksian, WTP value equals to the sum of the coefficients multiplied by the mean WTP value. This implies that the WTP value is influenced by the number of coefficients in model. In other words, it depends on the number of variables that are put into model. The lack of psychological factors in traditional CV model, therefore, doesn't only affect the explaining payment behavior, but also it affects the accuracy of the WTP result. From the existing shortcomings mentioned in above paragraph, this paper introduces a new CV model that incorporates the theory of planned behavior into the contingent valuation method to explain the influential factors on WTP and estimate its value. Contemporaneously, the relationship between the estimation results and the number of variables as well as types of variables are also discussed to shed more light on the influential causes on CV results. Context of Halong Bay, Vietnam is selected to collect data for empirical analysis.

2. Framework

In this study, we start by establishing a primary model with a direct utility function to single site, $U=f(X)$, where U is direct utility of visitor and X is time that he or she spends for each trip. Each tourist usually faces a budget constraint underlying his/her choice, Y as income such that $Y = PX$. P is price (travel cost) for each time unit.

The visitor is assumed to maximize ordinal utility subject to a budget constraint, in which the utility function depends on total time that the visitor spends for the trip and quality of destination. The visitor optimizes by choosing time for the trip to site with a given price and budget by solving $\text{Max } L = f(X) - \lambda(PX - Y)$. The following Lagrangean expression characterizes the rules that govern the visitor's optimization behavior to be $\partial L / \partial X = f'(X) - \lambda P = 0$ for recreation site and $\partial L / \partial \lambda = PX - Y = 0$. So that travel demand depends on price and income:

$$X = f(P, Y) \quad (1)$$

However, in fact travel demand doesn't only depend on price (travel cost) and visitor's income, but also depends on many other factors. According to the theory of planned behavior^[1] developed by Ajzen (2001), human behavior depends upon three basic components such as attitude towards behavior, subjective norm, and perceived behavioral control.

Firstly, attitude towards behavior is considered as an intervening factor in social psychology research and a hypothetical construct that can be inferred but cannot be directly observed or a type of evaluative response towards a particular object (Lippa 1990, Schroeder 2013). It refers to a relatively persistent and consistent behavioral predisposition of individuals based on their perception. In other words it manifests the likes or dislikes of people for a certain event, object or environment (Olson and Zanna 1993).

Secondly, Subjective norm was regarded as the product of normative belief and motivation to comply (Ajzen and Fishbein 1980). Normative belief reflects the social pressure perceived by individuals to perform or not to perform a certain behavior in relation to other persons or organizations. Motivation to comply refers to the willingness of individuals to comply with important others' expectations when deciding whether to perform a certain behavior or not. Subjective norms are normally the influence of other persons or organizations to individuals when performing a specific behavior (Ajzen 1991).

Finally, perceived behavioral control is a composition of control belief or the beliefs about the elements facilitating or impeding the behavior and the control power individuals have over these elements (Ajzen 1985). The intention of individuals is affected by attitude towards behavior, subjective norm and perceived behavioral control. Perceived behavioral control not only influences intention, but it may also directly influence the behavior of individuals. For example, a person needs to have time and the economic conditions that will allow him to engage in leisure activities. Otherwise, no matter how passionate about leisure this individual is and no matter how society has commended the significance of leisure travel towards a person's life, if this individual has little money and no spare time, his leisure intention will be constrained and thus harder for an actual behavior to

^[1] In psychology, the theory of planned behavior is a theory about the link between attitudes and behavior. The concept was proposed by Icek Ajzen to improve on the predictive power of the theory of reasoned action by including perceived behavioral control. It is one of the most predictive persuasion theories. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors.

manifest. Such relationships are represented as in Figure 1.

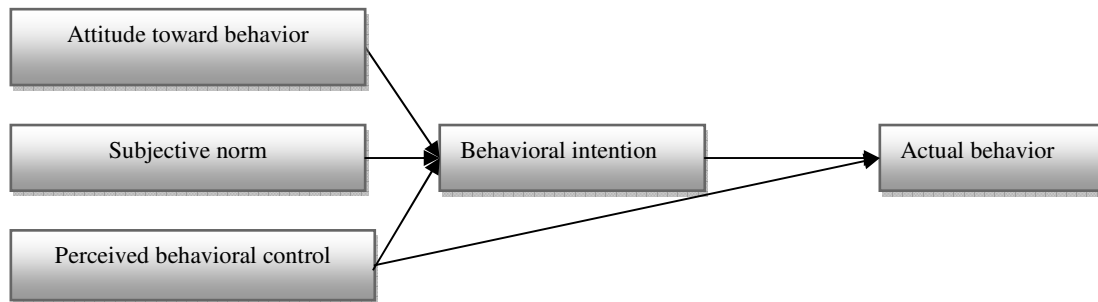


Figure 1 The theory of planned behavior by Ajzen (1985)

Therefore, if the time choice (travel demand) of a journey is considered as an expression of individual behavior, then besides travel cost and income, it will depend on factors like attitude towards behavior, subjective norm, and perceived behavioral control. We can now expand our demand function by adding these factors into equation (1) as follows:

$$X = f(P, Y, A, B, C) \quad (2)$$

, where A is attitude towards behavior, B is subjective norm, C is perceived behavioral control. We denote the site's environmental quality being valued by Q and assume that the environmental quality effects to time that visitor spend for her or his trip. Each individual has a utility function defined over the amount of time (X), and environmental quality of that site (Q), as follows:

$$U = f(X, Q) \quad (3)$$

By substituting equation (2) into equation (3), we have an indirect utility function corresponding to direct utility function (3) as follows:

$$V = V(P, Y, A, B, C, Q, \varepsilon) \quad (4)$$

Assume that the visitor j^{th} chooses time for his or her trip to recreational site is presented with the possibility of obtaining a change in the quality of an environmental good Q from Q_0 (the base case) to Q_1 (improved environment); where Q_1 is a preferred state to Q_0 , i.e., $Q_1 > Q_0$. The indirect utility function of the j^{th} visitor for the base case can be expressed as (Hanemann 1984, Aminejad et al. 2006).

$$V_j^0 = V_j(Q_0, P, Y, A, B, C, \varepsilon_{0j}) \quad (5)$$

ε is some stochastic component, unobservable to the researchers. ε_0 and ε_1 are independently and identically distributed random variables with zero means (Aminejad et al. 2006). The subscript of ε indicates status quo if it is zero and the alternative state if it is 1. In equation (5), the subscript j, identifying the indirect utility function of the j^{th} visitor, is omitted from the function to avoid clutter but will be brought in whenever it is convenient to do so.

$$V^0 = V(P, Y, A, B, C, Q_0, \varepsilon_0) \quad (6)$$

Since the environmental quality improvement is assumed to be viewed by the visitor as an improvement program, the indirect utility function associated with this improvement may be expressed as equation (7) and (8) (Hanemann 1984, Aminejad et al. 2006).

$$V^1 = V(P, Y, A, B, C, Q_1, \varepsilon_1) \quad (7)$$

$$V_j^1(P, Y, A, B, C, Q_1, \varepsilon_1) \geq V_j^0(P, Y, A, B, C, Q_0, \varepsilon_0) \quad (8)$$

This means that the indirect utility associated with the environmental quality improvement is greater than or equal to the base case. Assuming that the individual is rational and maximizes utility (the rational agent assumption), the environmental quality improvement is preferred to the base case and its selection maximizes individual utility. However, if the environmental quality improvement program is implemented and needs to get a fee with the bid amount (W), then the indirect utility associated with the improvement becomes $V_1' = V(P, Y-W, A, B, C, Q_1, \varepsilon_1)$. If we offer a cost (W) to the visitor for the environmental quality improvement, then he/she will compare $V_1'(P, Y-W, A, B, C, Q_1, \varepsilon_1)$ with $V_0(P, Y, A, B, C, Q_0, \varepsilon_0)$ and responds "Yes" only if $V_1'(P, Y-W, A, B, C,$

$Q_1, \epsilon_1 \geq V_0(P, Y-W, A, B, C, Q_0, \epsilon_0)$ and “No” otherwise. Assuming that each visitor is a utility function is able to formulate value from a given set of information, and will reveal their true preferences when presented with a choice (Mitchell and Carson 1989, Carson et al.2002). Then, the condition for voting “Yes” can be expressed as (Haaband McConnell 2000, Aminejad et al. 2006).

$$V^1(P, Y - W, A, B, C, Q_1, \epsilon_1) \geq V^0(P, Y, A, B, C, Q_0, \epsilon_0) \quad (9)$$

To measure the compensating surplus, we ask the question; “How much do you pay for the environmental quality improvement?” The answer to this question provides a value for the compensating surplus. The necessary condition for equality between (6) and (7) is:

$$\Delta V(W, P, Y, A, B, C, Q_0, Q_1, \epsilon) = V^1(P, Y - W, A, B, C, Q_1, \epsilon_1) - V^0(P, Y, A, B, C, Q_0, \epsilon_0) = 0 \quad (10)$$

Where, ΔV represents utility difference. Equation (10) implies that the utility difference between the base case and the improvement, after taking away (W) equal to zero for the visitor. Therefore, $W = W(Q_0, Q_1, P, Y, A, B, C, \epsilon)$ is the maximum WTP for environmental change from Q_0 to Q_1 . We assume that WTP is a linear function that depends on price (travel cost), income, and factors that were mentioned in theory of planned behavior as follows:

$$WTP = \alpha + \beta P + \gamma Y + \sum_{i=1}^n \delta_i A_i + \sum_{i=1}^k \theta_i B_i + \sum_{i=1}^m \mu_i C_i \quad (11)$$

, where WTP is compensating measure of WTP, α is constant, β and γ are coefficients of income and travel cost respectively, δ_i is a vector of coefficients of the attitude towards behavioral variables, θ_i is a vector of coefficients of the subjective norm variables, and μ_i is a vector of coefficients of the perceived behavioral control variables. An ordinary least squares procedure is used for estimating these coefficients.

3. Study area

Halong Bay is located in northeastern Vietnam, from E106°56' to E107°37' and from N20°43' to N21°09'. The bay stretches from Yen Hung district, past Halong city, Cam Pha town to Van Don district, bordered in the south and southeast by the Gulf of Tonkin, in the north by China, and in the west and southwest by Cat Ba Island. The bay has a 120 km long coastline and is approximately 1,553 km² in size with about 2,000 islets. Halong Bay is a famous destination domestically and worldwide and has been recognized twice as world heritage by UNESCO for its aesthetic value in 1994 and geological and geomorphological value in 2000. In 2012, the New 7 Wonders Foundation officially named Halong Bay as one of the new seven natural wonders of the world. In addition to other benefits, Halong Bay tourism sector plays an important role for local economy through enhancing income and providing employment to the local people. In 2011, total tourist receipt reached \$163.30 million with 6.6 million visitors, of which 2.5million were foreign visitors (37.90%)^[2]. On the other hand, Halong tourism sector also contributes a considerable amount to the national economy with over US\$45.10 million in 2010 and US\$48.00 million in 2011^[3].

However, in recent years Halong Bay is facing an increasing environmental pollution and serious degradation of natural resources as due mainly to the socio-economic development process and the rapid growth of the tourism industry. Annually, Halong Bay gets 844 tons of oil and minerals from shipping vehicles that operate and anchor frequently in Halong Bay. Currently, almost of these vehicles don't have any technical means to treat hazardous liquid waste that directly discharges into the bay. Waste, oil, and mineral from the shipping vehicles as well as from manufactories, port, and service sectors along the coastline, are also dumped into Bay. The average amount of floating garbage on the surface water collected monthly ranges from 60 m³ to 70 m³. Concentration of contaminants has surpassed acceptable levels, especially in water surface and sediment of Cai Lan port, concentration of oil in sea water is 1.75mg/l, higher 18 times than Vietnam's acceptable levels and 1/3 of the water area of the bay has concentration of oil 1 to 1.73 mg/l. These sediments in the two sides of estuary has the highest concentration of oil with 752.85mg/l^[4]. It is quite suitable to collect data for study purpose through building a scenarios of environmental pollution reduction from current status of Halong Bay.

4. Survey design and data

Data was collected through a survey based on a questionnaire interview administered to tourists over 18 year olds, conducted from April 25th to May 30th, 2012 at two destinations of Halong Bay–Bai Chay Beach and Tuan Chau Isle. After rejecting 249 out of 1,500 questionnaires due to incomplete information, 1,251 questionnaires were used for the research. SPSS version 16.0 was used to analyze the survey questions.

For the dependent variables, a contingent valuation scenario was set up to elicit tourists' WTP for a program of

^[2]<http://vnexpress.net/gl/xa-hoi/du-lich/2012/03/khach-du-lich-den-ha-long-tang-manh/>

^[3]The exchange rate of \$1USD equal to 20.821VND; <tp://laodong.com.vn/Kinhte/Vinh-Ha-Long-Di-san-the-gioi-doanh-thu-ao-lang/78561.bld>

^[4]<http://vnexpress.net/gl/khoa-hoc/bao-ve-moi-truong/2012/06/tinh-trang-o-nhiem-dau-o-vinh-ha-long/>

reducing environmental pollution with three pollutants; namely, waste pollution, air pollution, and water pollution. Table 1 below shows that WTP values fluctuate between US\$0.00 and US\$2.36, with a mean payment amount of US\$1.03 per visitor. The result also indicated that the range of total staying days fluctuated from 1 to 10 days and most tourists stayed around 2 days (see Table 1).

Table 1 Dependent variables and definition

Variable	Definition	Mean	Median	Minimum	Maximum
WTP	US\$/a trip	1.03	0.94	0.00	2.36
Travel demand	Total staying day	2.27	2.00	1.00	10.00

The independent variables suggested in this study to be a set of variables associated with attitudes towards behavior, variables associated with subjective norm, and variables associated with perceived control behavior, which are summarized in Table 2, 3, and 4.

Variables associated with attitude towards behavior: Respondents were asked about expectation and information sources of tourists. To get information on tourists' expectations, a question "Which one of the items listed under do you like in Halong bay?" with six basic problems related to destination. According to the result in Table 2, beautiful landscape (EBL) emerges as one of favorite characteristics with mean value is 0.86, followed by convenient accommodation (ECA) (mean=0.38), delicious food (EDF) (mean=0.29), many nice recreations (EMR) (mean= 0.25), good security (EGS)(mean=0.21), and finally good service attitude (ESA) (mean = 0.17).

Table 2 Variables in component of attitude towards behavior

Variable	Definition	Mean	Median	Minimum	Maximum	
Expectation	EBL	Yes (1), otherwise (0)	0.86	1.00	0.00	1.00
	ECA	Yes (1), otherwise (0)	0.38	0.00	0.00	1.00
	EMR	Yes (1), otherwise (0)	0.25	0.00	0.00	1.00
	EDF	Yes (1), otherwise (0)	0.29	0.00	0.00	1.00
	EGS	Yes (1), otherwise (0)	0.21	0.00	0.00	1.00
	ESA	Yes (1), otherwise (0)	0.17	0.00	0.00	1.00
Information approach	MAM	Yes (1), otherwise (0)	0.75	1.00	0.00	1.00
	INT	Yes (1), otherwise (0)	0.48	0.00	0.00	1.00
	PAM	Yes (1), otherwise (0)	0.37	0.00	0.00	1.00
	TGB	Yes (1), otherwise (0)	0.28	0.00	0.00	1.00
	FAR	Yes (1), otherwise (0)	0.58	1.00	0.00	1.00
	EXP	Yes (1), otherwise (0)	0.61	1.00	0.00	1.00
	ATEP	Yes (1), otherwise (0)	0.57	1.00	0.00	1.00

Note: EBL; Expectation of beautiful landscape, ECA; Expectation of convenient accommodation, EMR; Expectation of many nice recreations, EDF; Expectation of delicious food, EGS; Expectation of good security, ESA; Expectation of good service attitude, MAM; Mass media, INT; Internet, PAM; Paper and magazine, TGB; Tourist guidebook, FAR; Friend and relatives, EXP; Experience, ATEP; Attitude towards environmental protection.

Regarding sources of information, respondents were asked about information channels where they referred before making journey including mass media (TV and radio) (MAM), internet (INT), paper and magazine (PAM), tourist guidebook (TGB), friend and relatives (FAR), and experience (EXP). The result of survey shows that the majority of visitors referred information from mass media (mean=0.75) and internet (mean=0.48) while relatively few visitors get information from tourist guidebook (mean=0.28) and paper and magazine (mean=0.37). Similar to mass media, a large number of tourists searched directly information related to destination through friends and relatives (mean=0.58) or their own experience (mean=0.61) (see Table 2).

Variables related to subjective norm; tourists were asked about destination quality and issues related to pollution/pollutants. Destination quality including quality of facilities and services were divided into five levels with such items as transportation (TRQ), service attitude (SEA), food (FOQ), recreation (REQ), infrastructure (INQ), and security situation (SES) were carried out by tourists. As the result reported in Table 3 reveals, the majority of visitors thought that the transportation quality and security situation were "good" while the quality of food, recreation, infrastructure and service attitude were only "normal". Additionally, we also refer tourists about existing issues as hawker situation (HAS) and lack of guide boards (LGB). Majority of the visitors complained about lack of guide boards (mean= 0.84) and confirmed that the hawker did exist (mean= 0.71) in Halong bay. Regarding with pollutant issues, the results indicated that the major environmental issue is waste pollution (WASP) (mean=0.93), followed by water pollution (WATP) (mean=0.49), and finally air pollution (AIRP) (mean=0.40) (see Table 3).

Table 3 Variables in component of subjective norm

Variable		Definition	Mean	Median	Minimum	Maximum
Destination quality	TRQ	VG=5, G=4, N=3, NG=2, B=1	3.71	4.00	1.00	5.00
	SEA	VG=5, G=4, N=3, NG=2, B=1	3.37	3.00	1.00	5.00
	FOQ	VG=5, G=4, N=3, NG=2, B=1	3.52	3.00	1.00	5.00
	REQ	VG=5, G=4, N=3, NG=2, B=1	3.30	3.00	1.00	5.00
	INQ	VG=5, G=4, N=3, NG=2, B=1	3.10	3.00	1.00	5.00
	SES	VG=5, G=4, N=3, NG=2, B=1	3.71	4.00	1.00	5.00
Pollutant issue	HAS	Yes (1), otherwise (0)	0.71	1.00	0.00	1.00
	LGB	Yes (1), otherwise (0)	0.84	1.00	0.00	1.00
	AIRP	Yes (1), otherwise (0)	0.40	0.00	0.00	1.00
	WASP	Yes (1), otherwise (0)	0.93	1.00	0.00	1.00
	WATP	Yes (1), otherwise (0)	0.49	0.00	0.00	1.00

Note: TRQ; Transportation quality, SEA; Service attitude, FOQ; Food quality, REQ; Recreation quality, INQ; Infrastructure quality, SES; Security situation, HAS; Hawker situation, LGB; Lack of guide boards, AIRP; Air pollution, WASP; Waste pollution, WATP; Water pollution, VG; Very good, G; Good, N; Normal, NG; Not good, B; Bad

Variables associated with perceived behavioral control; Respondents were asked about personal context and tourist mode. As the result of frequency analysis shown in Table 4 reveals, Halong bay is a destination for a diverse participants/visitors. Age (AGE) of respondents varied relatively widely ranging from 18 to 70, with the average of 25 years of age. The visitors came from many different areas: (RES) (mean=0.71), singles (MAR) (mean=0.39), and working peoples (OOC) (mean=0.68). Household size (HOU) fluctuates from 1 to 8, in which no-income persons (NOI) range from 0 to 6 persons. Average monthly income of respondents (INC) was US\$290 and most tourists have attained education level (EDU) of college and university (mean=3.46).

Table 4 Variables in component of perceived behavioral control

Variable		Definition	Mean	Median	Minimum	Maximum
Personal context	INC	Income per month US\$	290.1	188.63	47.16	2593.73
	AGE	Years old	27.14	25.00	18.00	70.00
	EDU	S(1), H(2), C(3), U(4), M(5), D(6)	3.46	4.00	1.00	6.00
	HOU	Total number of people in family	3.37	4.00	1.00	8.00
	NOI	TNNPF	1.07	1.00	0.00	6.00
	MAR	Marriage (1), single (0)	0.39	0.00	0.00	1.00
	OCC	Working (1), no working (0)	0.68	1.00	0.00	1.00
	RES	Halong (0), others (1)	0.71	1.00	0.00	1.00
Tourist mode	TRB	Yes (1), otherwise (0)	0.96	1.00	0.00	1.00
	TRR	Yes (1), otherwise (0)	0.32	0.00	0.00	1.00
	TRGI	Yes (1), otherwise (0)	0.45	0.00	0.00	1.00
	TRF	Yes (1), otherwise (0)	0.48	0.00	0.00	1.00
	TRCF	Yes (1), otherwise (0)	0.48	0.00	0.00	1.00
	TRA	Yes (1), otherwise (0)	0.02	0.00	0.00	1.00
	TRC	Travel cost per time US\$	101.8	94.32	9.43	264.09

Note: INC; Income, AGE; Age, EDU; Education, HOU; Household size, NOI; No-income people, MAR; Marriage, OCC; Occupation, RES; Resident, TRB; Travel beach, TRR; Travel relic, TRGI; Travel grotto and isle, TRF; Travel with family, TRCF; Travel with colleagues and friends, TRA; Travel alone, TRC; Travel cost, S; Secondary school, H; high school, C; College, U; University, M; master, D; Doctor, TNNPF; Total number of no-income people in family

For tourist mode, respondents were presented with three sets of questions pertaining to choice of destination, companions, and cost. With regard to destination choice, respondents were asked about which of three leisure areas they prefer to travel to: beach (TRB), grotto and isle (TRGI), and relic (TRR). With regard to companions traveling with respondents, they were asked whether they accompanied by family (TRF), colleagues and friends (TRCF) or alone (TRA). As the result reported in Table 4 reveals, the majority of tourists visit to beach (mean=0.96), followed by grotto and isle (mean= 0.45), and relic (mean=0.32) with mean cost about US\$94.32. The result also shows that most tourists travelled along with family (mean = 0.48), and friends and colleagues (mean = 0.48).

5. Result and Discussion

5.1 The result of estimation model

Linear regression model was employed to analyze the impact of core elements on the travel demand and WTP level. The results are presented in Table 5. Both models are statistically significant in explaining the variations of the dependent variables. Specifically, the impact of cost and income are consistency in terms of the sign of the coefficients in the two models. While the cost has negative impact on both travel demand (travel behavior) and WTP level (payment behavior), the impact of income was found to be positive. Although demand for environmental goods and services can't be measured by a specific number, it can, nevertheless be inferred from what each individual is willing to pay. This means that WTP level can be identified as individual demand for environmental goods and services. Naturally, an increase in income is synonymous to an increase in affordability to the individual, which can lead to an increase in the consumption of more goods and services or paying higher level for environmental quality improvement, whereas an increase in price of goods and services will lead to a comparative decrease in affordability to individuals, and consequently consumers will reduce the consumption of goods and services. Therefore, the findings are relatively consistent with theory of consumer behavior.

Both the travel demand and WTP levels were determined as two aspects of individual behavior that are not only governed by income and cost, but also influenced by factors such as genetic(Kim2009), habitat, political regime, culture, etc(Triandis 1994, Spilka and McIntosh 1996, Tangney et al. 2007). From perspective of behavioral psychology, the age, education, household's size, the number of people with no-income, marriage, occupation, residence, traveling with family, traveling with colleagues and friends, traveling to beach, traveling to relic, and traveling to grotto and isle can be defined as variables related to perceived behavioral control and they can become stimulating or impeding elements to human behavior (Ajzen 1985). As the results indicated in Table 5, almost all of the variables in the category of perceived behavioral control, have strong and significant impact on payment behavior (WTP level), with the exception of education, traveling with family, and traveling with colleagues and friends. In which household's size, marriage, travel alone, travel beach, travel relic, and travel grotto and isle play role to be impeding elements to payment behavior, because they have negative impact on WTP level. Whereas the impact of age, number of people with no-income, occupation, resident, traveling with family, and traveling with colleagues and friends on WTP level were found to be positive, this implies that they are stimulating elements of payment behavior.

Table 5 The result of estimation model

Travel demand model			WTP model WTP value: 0.600		
R-Square : 0.702			R-Square : 0.641		
Adj. R ² : 0.633			Adj. R ² : 0.558		
DW : 0.912			DW : 1.116		
P-value: 0.000			P-value: 0.000		
Variable	Travel demand model	WTP model	Variable	Travel demand model	WTP model
(Constant)	1.725(0.54)***	-1.861(0.48)***	EGS	-0.253(0.09)	-0.323(0.08)**
TRC	-7E-3(1 E-3)***	-2E-3(7E-4)***	ESA	0.154(0.10)	0.281(0.09)*
INC	1E-4(2E-4)	1E-4(1E-4)**	ATEP	-0.259(0.23)***	0.273(0.20)***
AGE	0.419(0.08)***	0.201(0.07)***	MAM	-0.074(0.10)	0.161(0.09)*
EDU	0.123(0.05)**	-0.044(0.05)	INT	0.326(0.10)***	0.132(0.09)
HOU	0.155(0.04)***	-0.108(0.04)***	PAM	0.076(0.10)	0.336(0.09)***
NOI	-0.402(0.08)***	0.338(0.07)***	TGB	0.384(0.19)***	-0.361(0.16)***
MAR	-0.190(0.14)	-0.846(0.12)***	FAR	-0.094(0.32)	0.469(0.28)***
OCC	0.127(0.14)	0.448(0.13)***	EXP	0.362(0.06)***	0.774(0.05)***
RES	0.256(0.10)**	0.170(0.09)**	TRQ	0.086(0.07)	-0.175(0.06)***
TRF	0.207(0.12)**	0.060(0.11)	SEA	-0.037(0.08)	0.477(0.07)***
TRCF	-0.193(0.14)	0.205(0.13)	FOQ	-0.219(0.06)***	0.122(0.06)*
TRA	0.423(0.17)	-1.518(0.15)***	REQ	0.058(0.06)	-0.156(0.05)***
TRB	0.347(0.12)	-0.533(0.11)***	INQ	0.015(0.06)	0.301(0.05)***
TRR	0.092(0.17)	-0.231(0.15)***	SES	0.147(0.09)**	-0.133(0.08)**
TRGI	0.407(0.18)***	-0.178(0.16)**	WATP	-0.035(0.10)	0.186(0.09)**
EBL	-0.042(0.10)	-0.110(0.09)	AIRP	-0.296(0.17)*	0.198(0.16)
ECA	-0.435(0.11)***	0.356(0.10)***	WASP	-0.484(0.11)***	0.493 (0.10)***
EMR	0.151(0.10)	-0.335(0.08)**	HAS	-0.384(0.10)***	0.212 (0.09)**
EDF	0.018(0.12)	0.485(0.10)***	LGB	-0.719(0.15)***	0.818 (0.13)***

*Significant at 10% level; **Significant at 5% level; ***Significant at 1% level

Deriving from behavioral belief, the component of attitude towards behavior is determined as an expression of belief, desire or expectation of a certain event or phenomenon before performing an actual behavior. Similar to

variables in component of perceived behavioral control, the majority of these variables in the component of attitude towards behavior were found to have strong and significant impact on WTP level, with the coefficient of attitude towards environmental protection attaining the expected sign with magnitude of 0.273, statistically significant at 1% level (see Table 5). The positive impact of attitude towards environmental protection on payment behavior shown that when the importance of environmental protection is appearing in consciousness of an individual, the individual willing to pay a higher level compared to individuals with lack of awareness about importance of environmental protection.

For subjective norm, a set of variables is linked to model such as transportation quality, service attitude, food quality, recreation quality, infrastructure quality, security situation, water pollution, air pollution, waste pollution, hawker situation, and lack of guide boards. According to the results in Table 5, almost all of the variables are significant correlated with WTP level, with the exception of air pollution. In addition, when considering the impact of water pollution and waste pollution on the travel demand and WTP level, we found that water pollution and waste pollution have negative impact on travel demand while their impact on WTP level were found to be positive with standard coefficients of 0.196 and 0.493. This implies that when the environmental quality of destination doesn't satisfy individuals' needs or desires, it leads to a reduction in travel demand and consequently the individuals will be willing to pay a higher level to attain their needs or desires.

From the results of empirical analysis discussed in above paragraph, it will be more clearly and adequately when WTP is explained and predicted from perspective of behavioral psychology. WTP isn't only impacted strongly by income and cost that are consistent with principles of consumer behavior, but also it is governed by the three basic components of perceived behavioral control, attitude towards behavior, and subjective norm, which were determined in the theory of planned behavior. The WTP value for environmental quality improvement in Halong bay obtained from this full model was found to be US\$ 0.60/a person/a trip (see Table 5). The extra charge might be added to the price of entrance ticket.

5.2 WTP values and reliability of WTP result

Although contingent valuation has been used extensively in policies related research to estimate environmental costs and benefits, but there was also much debate over the validity and reliability of WTP estimates provided by the technique. It was strongly recommended that all the CV studies should be designed such that the 'internal consistency tests' could be carried in a later stage to assess the validity and the reliability of the results (Venkatachalam 2004). According to Kealy et al. (1990), validity refers to the accuracy of the CV results. If the results conform to the underlying principles of economic theory, then CV results would be theoretically valid. The reliability refers to extent to which the variance of the WTP amounts is due to random sources (Mitchell and Carson 1989). Reliability requires that, in repeated measurements, if the true value of the phenomenon has not changed, a reliable method should result in the same measurement and if the true value has changed a reliable method's measurement of it should change accordingly (Loomis 1990). As discussed in previous section (5.1), the impact of cost and income on WTP was found to be consistent with theory of consumer behavior. This means the model used in this study was theoretically valid to estimate WTP values for environmental commodity.

In this section, the reliability of WTP results will be clarified by application of the hierarchical technique (Jacob and Cohen 1975), in which the independent variables were divided into two classes. The first class includes the important variables such as income and travel cost for which entry method was used to estimate coefficients. The second class comprises of the remaining variables for which stepwise method was used to estimate coefficients and automatically add additional variables in model.

According to the results shown in Appendix (1, 2, and 3), utilizing the hierarchical technique has generated a series of models. All these models are statistically significant, with adjusted R-square values increasing as additional explanatory variables are added. In other words, the variation in payment behavior is explained better, as more psychological factors are included in the model as evidenced by the corresponding increases in the adjusted R-square values. Moreover, when observing the change between WTP value and number of variables, we found that WTP value depends on the number of explanatory variables (see Table 6). On the other hand, when model is augmented with the different variables, the WTP results obtained are different although they have the same a number of explanatory variables. For example, WTP results in 16th model and 18th model (see Appendix 3) are different although both models have the same number of variables. These results are similar to the findings reported by Venkatachalam (2004), "the validity and reliability of the CV results depends mainly on the level and nature of information provided to the respondents through the scenarios", in which the nature of the information provided has been found to affect the results both positively as well as negatively (Bergstrom et al. 1990). Additionally, we also found that there is not large difference between the estimated WTP result in the full

model with WTP value of US\$ 0.60/a person/a trip (see Table 5), and WTP result in 21st model, with WTP value of US\$ 0.63/a person/a trip (see Table 6), which was the final model using the hierarchical technique (see Appendix 3). This implies that the WTP value in the full model takes into account of both theoretical validity and reliability of WTP results.

Table 6 Number of variables and WTP value

Model	No. of variables	WTP value (US\$)	Model	No. of variables	WTP value (US\$)
1	2	0.92	12	13	1.50
2	3	0.42	13	14	1.58
3	4	0.51	14	15	1.71
4	5	0.60	15	16	1.44
5	6	0.69	16	17	1.53
6	7	0.79	17	18	1.54
7	8	1.16	18	17	1.72
8	9	1.45	19	18	1.46
9	10	1.79	20	19	1.85
10	11	1.55	21	20	0.63
11	12	1.57	-	-	-

6. Remarkable conclusion

As an integral part of environmental assessment in developmental and basic infrastructural projects (Venkatachalam 2004), CVM has attracted a great deal of concerns on the part of environmental policy makers, managers, and scholars. However, there have been concerns over biases associated with its use. Consequently, a number of studies have identified bias and errors from the use of CVM. Although the bias and errors were surmounted considerably in both theoretical and empirical studies (Venkatachalam 2004), but an issue still persisting and also apparently neglected seems to be the lack of use of appropriate indicators in analytical models employed in such studies. In this study, therefore, a new model was established by incorporating application of theory of planned behavior into CVM model to estimate WTP values and shed more light on the impact of selected indicators on payment behavior.

Accordingly, it was found that WTP was not only affected by such factors as income, cost, individual demography, and attributes of environment, but also it was impacted strongly by psychological factors. More specifically, the cost factor had negative influence on WTP, while the impact of income was found to be positive, which was consistent with principles of consumer behavior. Similar to income, the attitude towards environmental protection, waste pollution, and water pollution had also positive and strong influence on WTP. Another important finding of this study relates to the fact that the variability in WTP results depended upon the number and types of explanatory variables included in model. Accordingly, it was found that and there was not large difference when comparing WTP result of full model (see Table 5) with that of the 21st model in appendix 3 that was applied by the hierarchical technique.

For environmental policy makers, managers and scholars, it should be noted that WTP is only an expression of human behavior if it is considered under perspective of behavioral psychology. It will be a large shortcoming if psychological factors are excluded from estimation model, because this will potentially affect the CV results which may be less relevant for policy-making purpose (Venkatachalam 2004). Moreover, in the efforts of environmental protection and natural conservation, it was also noted that enhancing awareness of community in environmental protection and natural conservation needs to be considered as an indispensable part of policies making and implementing. In addition, this research has highlighted the importance of planned behavior in WTP studies. Hence, there is a need to conduct further research in different contexts to empirically ascertain the extent to which such considerations would improve our understanding of resource conservation. This may require employing a more advanced modeling and appropriate choice indicators of planned behavior.

Reference

- Amirnejad, H., Khalilian, S., Assareh, M.H., & Hmdian, M.A. (2006), "Estimating the existence value of north forests of Iran by using a contingent valuation method", *Ecological Economics*, 58(4), 665-675.
- Ajzen, I. (2001), "Nature and operation of attitudes", *Annual review of psychology*, Palo Alto, 52, 27-58.
- Ajzen, I. (1991), "The theory of planned behavior", *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Ajzen, I. (1985), "From intentions to actions: A theory of planned behavior", *Action Control SSSP Springer Series in Social Psychology*, 11-39.
- Ajzen, I., & Fishbein, M. (1980), "Understanding attitudes and predicting social behavior", Prentice-Hall, Englewood Cliffs, NJ.
- Arrow, K., & Fisher, A.C. (1974), "Environmental preservation, uncertainty, and irreversibility", *Quarterly Journal of Economics*, 88, 313-319.
- Aldy, J., & Krupnick, A. (2009), "Introduction to the frontiers of environmental and resource Economics" *Journal of Environmental Economics and Management*, 57, 1-4.
- Bergstrom, J.C., Stoll, J.R., & Randall, A. (1990), "The impact of information on environmental commodity valuation decisions", *American Journal of Agricultural Economics*, 72, 614-21.
- Carson, R.T., & Michael, W.H. (2005), "Contingent valuation in Mäler, K. G., Jeffrey, R. V., ed.", *Handbook of Environmental Economics*, 2, 821-936.
- Carson, R., Groves, T., & Machina, M. (2002), "Incentive and information properties of preference questions. State preferences: What do we know? Where do you go? Where do you go? Proceeding session One; Theory and design of stated preference methods", Workshop sponsored by EPA'S NCE and NCER, 80.
- Claudia, C., Barkmann, J., & Marggraf, R. (2013), "Application of choice experiments to quantify the existence value of an endemic moss: a case study in Chile", *Environment and Development Economics*, 18(2), 207-224.
- Cliff, S.D. (2012), "Types of values and valuation methods for environmental resources: Highlights of key aspects, concepts and approaches in the economic valuation of forest goods and services", *Journal of Horticulture and Forestry*, 4(12), 181-189, DOI: 10.5897/JHF12.011.
- Ciriacy-Wantrup, S.V. (1952), "Resource conservation: Economics and policy", Berkeley and Los Angeles: University of California Press.
- Dagneu, H., Alemu, M. & Zenebe, G. (2012), "Households' Willingness to Pay for Improved Urban Waste Management in Mekelle City, Ethiopia", *Environment for Development, Discussion Paper Series*, EfD DP 12-06.
- David, H., & Mariel, P. (2010), "Contingent valuation: Past, Present and Future". *Prague Economic Papers*, 4, 329-343
- Eberle, W.D., & Hayden, F.G. (1991), "Critique of contingent valuation and travel cost methods for valuing natural resources and ecosystems", *Journal of Economic Issues*, 25(3).
- Freeman, M. (1993), "The measurement of environmental and resource values", Washington, DC: Resource for the Future; MA.
- Hanemann, W.M. (1984), "Welfare evaluations in contingent valuation experiments with discrete responses Reply", *American Journal of Agricultural Economics*, 69, 332-341.
- Hausman, J.A., (1993), "Contingent Valuation: A Critical Assessment" Amsterdam: North-Holland.
- Haab, T.C., & McConnell, K. E. (2002), "Valuing environmental and natural resources: The econometrics of non-market valuation". Edward Elgar, Cheltenham, UK. Northampton, USA.
- Hanh, N.V., & Shin, H. J. (2012). "Assessment of Air Pollution Related Health Problems and Willingness to Pay for Improved Environment in Hanoi, Vietnam: An Application of Contingent Valuation Method". *Agricultural Journal*, 7(5), pp; 273-281.
- Halkos, G., (2013), "The relationship between people's attitude and willingness to pay for river conservation", *MPRA Paper*, No. 50560.
- Haipeng, Z., & Xuxuan, X. (2013), "Combining Stated Preference and Revealed Preference Methods for the Valuation of Non-market Goods", *Chinese Journal of Population Resources and Environment*, 10(4)

- Krutilla, J.V., (1967), "Conservation reconsidered", *American Economic Review*, 57(4), 777-786.
- Kealy, M.J., Montgomery, M., & Dovidio, J.F. (1990), "Reliability and predictive validity of contingent values: does the nature of the good matter?", *Journal of Environmental Economics and Management*, 19, 244-63.
- Jacob, C., & Patricia, C. (1975), "Analytic Strategies: Simultaneous, Hierarchical, and Stepwise Regression", Amazon publication, Loomis.
- Juan. P., Garces, V., & Zinnia, M. (2012), "Estimating the Willingness to Pay for Environmental Resources in the Chilean Patagonia", MPRA Paper, No. 39320.
- Loomis, J.B. (1990), "Comparative reliability of the dichotomous choice and open-ended contingent valuation techniques", *Journal of Environmental Economics and Management*, 18, 78 – 85.
- Lippa, R.A. (1990), "Introduction to social psychology", California: Wadsworth, (Belmont, CA), ISBN 0-534-11772-4 xxiii + 643, index.
- Kim, J.K. (2009), "Handbook of Behavioral genetics", Springer Publisher, ISBN: 978-0-387-76726-0
- Mitchell, R. C., & Carson, R.T. (1989), "Using surveys to value public goods: The Contingent Valuation Method", Johns Hopkins University Press, Baltimore, MD.
- Olson, J.M., & Zanna, M. P. (1993), "Attitudes and attitude change", *Annual Review of Psychology*, 44, 117-154.
- Richard, T.C., & Jordan, J.L. (2011), "A Common Nomenclature for Stated Preference Elicitation Approaches", *Environ Resource Econ*, DOI 10.1007/s10640-010-9450-x.
- Rodelio, F.S. (2007), "Mechanisms to capture economic values of marine biodiversity: The case of Tubbataha Reefs UNESCO World Heritage Site, Philippines", *Marine Policy*, 31, 135–142.
- Schroeder, P., Meyers, M., & Kostyniuk, L. (2013), "National survey on distracted driving attitudes and behaviors", Washington, DC: National Highway Traffic Safety Administration. Report No. DOT HS 811 729
- Smith K.V., (1993), "Nonmarket valuation of environmental resources: an interpretative appraisal", *Land Economics*, 69, 1–26.
- Spilka, B., & McIntosh, D.N. (1996), "The psychology of religion", Westview Press, ISBN-10: 0813329477.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007), "Moral emotions and moral behavior", *Annual Review of Psychology*, 58, 345.
- Triandis, H. C. (1994), "Culture and social behavior" McGraw-Hill Book Company, ISBN: 0073052604, 9780073052601
- Venkatachalam, L. (2004), "The contingent valuation method: a review", *Environmental Impact Assessment Review*; 24(1), 89–124.

Appendix: The result WTP testing model

Appendix 1 The result of WTP testing model

Variable	1	2	3	4	5	6	7
(Constant)	0.89***	0.20	-0.04	-0.33	-0.74***	-0.94***	-0.46
TRC	-3E-4	-5E-4	-5E-4	-5E-4	-8E-4	-1E-4	-1.5E-4**
INC	4E-4***	4E-4***	4E-4***	5E-4***	4E-4***	3E-4***	3E-4***
SEA		0.21***	0.24***	0.24***	0.30***	0.35***	0.39***
FAR			0.30***	0.33***	0.27***	0.28***	0.29***
RES				0.34***	0.45***	0.43***	0.41***
EXP					0.38***	0.38***	0.40***
WATP						0.26***	0.25***
TRQ							-0.16***
EDF							
ATEP							
TRB							
INT							
INQ							
LGB							
NOI							
EGS							
WASP							
MAR							
AGE							
TRA							
R-square	0.05	0.11	0.17	0.22	0.29	0.32	0.36
Adjust R-Square	0.04	0.10	0.15	0.20	0.27	0.30	0.33
P-Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WD	1.06	1.06	1.06	1.06	1.06	1.06	1.06
WTP	0.92	0.42	0.51	0.60	0.69	0.79	1.16
Number of variables	2.00	3.00	4.00	5.00	6.00	7.00	8.00

*Significant at 10% level; **Significant at 5% level; ***Significant at 1% level

Appendix 2 The result of WTP testing model

Variable	8	9	10	11	12	13	14
(Constant)	-0.49**	-0.51**	-0.55**	-0.70***	-0.85***	-1.16***	-1.34***
TRC	-2E-3***	-2E-3***	-2E-3***	-2E-3***	-2E-3***	-2E-3***	-2E-3***
INC	4E-4***	4E-4***	4E-4***	3E-4***	4E-4***	3E-4***	3E-4**
SEA	0.39***	0.42***	0.45***	0.46***	0.44***	0.46***	0.46***
FAR	0.30***	0.32***	0.32***	0.29***	0.33***	0.33***	0.32***
RES	0.43***	0.45***	0.44***	0.45***	0.44***	0.46***	0.47***
EXP	0.42***	0.47***	0.48***	0.51***	0.50***	0.53***	0.56***
WATP	0.28***	0.31***	0.28***	0.27***	0.28***	0.32***	0.36***
TRQ	-0.17***	-0.17***	-0.17***	-0.17***	-0.17***	-0.18***	-0.18***
EDF	0.25***	0.27***	0.27***	0.23***	0.27***	0.33***	0.35***
ATEP		0.19***	0.17**	0.18**	0.18**	0.19***	0.20***
TRB			-0.17**	-0.17**	-0.20**	-0.22***	-0.18**
INT				0.16**	0.16**	0.15**	0.18**
INQ					0.08**	0.09**	0.09**
LGB						0.23**	0.28***
NOI							0.09**
EGS							
WASP							
MAR							
AGE							
TRA							

R-square	0.38	0.40	0.41	0.43	0.44	0.45	0.46
Adjust R-Square	0.35	0.37	0.38	0.39	0.40	0.41	0.42
P-Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DW	1.06	1.06	1.06	1.06	1.06	1.06	1.06
WTP	1.45	1.79	1.55	1.57	1.50	1.58	1.71
Number of variables	9.00	10.00	11.00	12.00	13.00	14.00	15.00

*Significant at 10% level; **Significant at 5% level; ***Significant at 1% level

Appendix 3 The result of WTP testing model

Variable	15	16	17	18	19	20	21
(Constant)	-1.62***	-1.62***	-1.76***	-1.75***	-1.97***	-2.03***	-2.07***
TRC	-2E-3***	-2E-3***	-2E-3***	-2E-3***	-2E-3**	-2E-3***	-2E-3***
INC	3E-4**	3E-4**	3E-4***	3E-4***	2E-4**	2E-4**	2E-4*
SEA	0.50***	0.50***	0.50***	0.49***	0.47***	0.47***	0.49***
FAR	0.36***	0.36***	0.36***	0.35***	0.36***	0.35***	0.35***
RES	0.49***	0.49***	0.45***	0.46***	0.43***	0.42***	0.41***
EXP	0.59***	0.59***	0.61***	0.62***	0.64***	0.68***	0.68***
WATP	0.41***	0.41***	0.32***	0.34***	0.36***	0.34***	0.32***
TRQ	-0.15***	-0.15***	-0.16***	-0.16***	-0.15***	-0.15***	-0.15***
EDF	0.45***	0.45***	0.46***	0.46***	0.47***	0.50***	0.50***
ATEP	0.17**	0.17**	0.24***	0.26***	0.26***	0.27***	0.25***
TRB	-0.16**	-0.16**	-0.13***	-	-	-	-0.16**
INT	0.18**	0.18**	0.21***	0.22***	0.25***	0.25***	0.25***
INQ	0.09**	0.09**	0.09**	0.08**	0.11**	0.12***	0.14***
LGB	0.31***	0.31***	0.38***	0.37***	0.36***	0.41***	0.41***
NOI	0.11**	0.11**	0.17***	0.19***	0.15***	0.15***	0.12***
EGS	-0.31**	-0.31**	-0.27**	-0.30**	-0.38***	-0.40***	-0.38***
WASP		0.20**	0.24***	0.25***	0.25***	0.29***	0.27***
MAR			-0.21**	-0.21***	-0.36***	-0.41***	-0.43***
AGE					0.17***	0.18***	0.21***
TRA						-0.61***	-0.57***
R-square	0.48	0.49	0.51	0.50	0.52	0.54	0.55
Adjust R-Square	0.43	0.44	0.46	0.45	0.47	0.49	0.50
P-Value	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DW	1.06	1.06	1.06	1.06	1.06	1.06	1.06
WTP	1.44	1.53	1.54	1.72	1.46	0.85	0.63
Number of variables	16.00	17.00	18.00	17.00	18.00	19.00	20.00

Significant at 10% level; **Significant at 5% level; ***Significant at 1% level