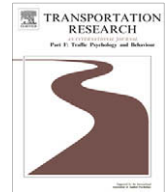




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Predicting the travel intention to take High Speed Rail among college students

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ABSTRACT

In order to understand travelers' willingness to take Taiwan's High Speed Rail (HSR) and its antecedents, this study adds two constructs – novelty seeking and trust – to the model of theory of planned behavior (TPB). The study collected research data from a university in northern Taiwan, resulting in an effective data of 300 subjects. Results indicate that attitude, perceived behavioral control, and subjective norm are found to have positive effects on the behavioral intention of taking HSR. Furthermore, novelty seeking and trust also have positive influences on attitude and three antecedents of the intention in taking HSR respectively. Theoretical and marketing implications are derived.

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1. Introduction

Tourism is a non-smokestack industry that is held in high importance by countries all over the world. Indeed, the ever-increasing number of world travelers assumes that there will be a proportionate increase in tourism-related revenues, which in turn generate local business earnings and tax revenues. To fuel the boom of its domestic tourism industry, Taiwan's Ministry of Transportation and Communications launched a program titled "Doubling Tourist Arrival Plan", setting targets to double the number of tourist arrivals to 2 million and raising the total number of visitor arrivals to at least 5 million by 2008. Despite its tremendous cost; however, for some reason this program did not meet the expected effect. Aside from the revenue provided by international tourists, domestic citizens can also spur the domestic tourism industry. According to a survey from Taiwan's Tourism Bureau (2006), total domestic tourist travel expenses by all citizens in 2006 hit NT\$224.3 billion, accounting for 1.9% of GDP. Among the respondents, most tourists took domestic trips (87%), 61% of citizens took a one-day trip, the main transportation for most tourists was private automobile (67%), and the leader among travelers was students (17.2%). Since most domestic tourists are students who usually engage in one-day trip, they are chosen as the subjects in this study for the purpose of predicting travel intentions by a new transportation vehicle, Taiwan's High Speed Rail (HSR).

Taiwan's High Speed Rail (HSR) system was first launched on January 5, 2007. The US\$15 billion project has greatly shortened the 345-km journey between the two major cities of Taipei and Kaohsiung from several hours by cars to less than

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90 min. Because of its efficient and time-saving travel service, HSR enables people in Taiwan to live in a “one-day peripheral circle”. The operation of HSR has had immediate and long-term impacts on regional development. Before its official operation, there was doubt over the safety of HSR in people’s mind mostly due to its hybrid of Japan-made core and European subsystems. Another threat to the safety of HSR is land-subsiding caused by the overuse of underground water in some regions of central Taiwan. Despite these safety concerns, a consumer boycott movement, and frequent breakdowns in its booking system, the initial public response was quite enthusiastic as more than 80,000 tickets were sold in the first 10 days of opening and 5 million tickets in three months. Therefore, the operation of HSR is expected to add vitality into the sluggish domestic travel industry.

Transport infrastructure is considered an essential component of successful development, for it induces the creation of new attractions and the growth of existing ones (Kaul, 1985). Khadaroo and Seetanah (2007) found that transport infrastructure contributes positively to tourist numbers, particularly from Europe/America and Asia. According to the *Tourism Task Force (2003)* of Australia, transport is a major part of this statement. With different trip purposes and trip length, people make different choices of travel mode (Georggi & Pendyala, 1999). Fröidh (2005) asserted that HSR can attract travelers who previously chose to travel by car and can also provide new opportunities for long distance traveling which is too long for daily travel by cars. However, it is not clear what drives the travelers to take HSR. To investigate the process, this study applies the theory of planned behavior (TPB) as the research framework to predict the behavioral intention of taking HSR. TPB, a widely used model to predict and explain human behavior, has been applied to a variety of social behaviors with strong predictive utility (e.g., Ajzen & Driver, 1992; Conner, Warren, Close, & Sparks, 1999; Reinecke, Schmidt, & Ajzen, 1996). Furthermore, additional constructs are suggested to enhance the predictive power of TPB (Conner & Abraham, 2001), and thus this study employs novelty seeking and trust for the following reasons.

According to a survey from Taiwan’s Tourism Bureau (2006), the main purpose of domestic traveling is for pleasure, leisure, and vacation (61%). Goossens (2000) indicated that the attraction of a destination is the fundamental attribute to draw tourists. Novelty-seeking motives could be used to explain tourists’ choices of certain destinations (Crompton, 1979; Leiper, 1984). Hence, personal motivations such as needs for novelty, arousal, or stimulation (Lee & Crompton, 1992) can be hypothesized as being causes of such tourism behaviors (Bello & Etzel, 1985). In this manner, the paper herein explores the effect of novelty seeking on domestic tourism among college students’ intention to take HSR.

Another additional construct is trust which is central to all kinds of relationships (Morgan & Hunt, 1994), especially between product or service suppliers and clients, because of the high degree of risk, uncertainty, and unparallel information on consumer parts (Mayer, Davis, & Schoorman, 1995). During travel activities, good quality tours which usually mean safe traveling could enhance tourists’ positive impressions over the trip and encourage future revisiting (Swanson & Kelley, 2001). Correspondingly, the safety for travel vehicles plays a pivotal role in a tour. According to some researches, trust can be considered a conspicuous behavioral belief which exerts an influential effect on the antecedents of behavioral intention – that is, attitude, perceived behavioral control, and subjective norm (Bandura, 1986; Davis, Bagozzi, & Warshaw, 1989; Wu & Chen, 2005). In the following sections, the hypothesis development among these factors was depicted.

1.1. *The theory of planned behavior*

The theory of planned behavior (TPB) is a well-researched model which is widely used in explaining and in predicting human behavior across a variety of disciplines (Ajzen, 1991), such as marketing consumer behavior (Berger, 1993), leisure behavior (Ajzen & Driver, 1992), and disease prevention (Randall & Gibson, 1991). TPB is an extension of the theory of reasoned action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). According to TRA, behavioral intention (BI), an immediate predictor of behavior, is a function of attitude (AT) and subjective norm (SN). However, an additional construct of perceived behavioral control (PBC) – an antecedent variable affecting both intentions and behavior – has been added to the TRA model. TRA could adequately predict behaviors under volitional control, but under circumstances where there are constraints on action, the mere formation of an intention is insufficient to predict behavior. Thus, the inclusion of PBC is necessary to improve the predicting power of intention (Armitage & Conner, 2001).

A major contribution of TPB is the notion that intention mediates between attitude and behavior, and that intention predicts behavior more accurately than does attitude (Ajzen & Fishbein, 1977). Thus, TPB postulates three conceptually independent determinants of intention. The first predictor is attitude toward the behavior (AT), which reflects feelings of favorableness or unfavorableness towards performing a behavior (Ajzen, 1985, 1991). In the context of tourism, attitudes are predispositions or feelings toward a travel mode, like HSR. The second predictor is subjective norm (SN), which refer to the perceived social pressure that significant others (parents, spouse, friends, etc.) desire the individual to perform or not perform a behavior. Any person or group served as a reference group could exert a key influence on an individual’s beliefs, attitudes, and choices (Moutinho, 1987), because an individual may conform to his/her referent groups. The last antecedent of intention is perceived behavioral control (PBC), as it reflects the person’s past experience, anticipated obstacles, and resources (e.g., opportunity, time, money, and skill) required to perform the behavior (Ajzen, 1991; Bhattacherjee, 2000; Taylor & Todd, 1995). In general, the more resources and opportunities that individuals think they possess and the fewer obstacles they anticipate, the greater is their perceived control over the behavior (Ajzen & Madden, 1986).

Behavioral intention (BI) is the individual’s subjective probability that he or she will engage in that behavior. According to TPB, the immediate determinant of a behavior is the individual’s intention to perform or not perform that behavior (Ajzen, 1985). Therefore, if there is an opportunity to act and the intention is measured accurately, then it will provide the best

predictor of behavior (Fishbein & Ajzen, 1975). This study defines behavioral intention (BI) as Taiwanese college students' anticipation to take HSR for leisure or vacation purpose.

Many studies have suggested that behavioral intention is a function of attitude, subjective norm, and perceived behavioral control, and this could also be found in a study on consumption in tourism (Lam & Hsu, 2006; Sparks, 2007), even though the relative weights of these three antecedents of intention are expected to vary with the kind of behavior being predicted and with the conditions under which the behavior is to be taken. The marketing literature has firmly established that attitude has a strong, direct, and positive effect on intentions (Bagozzi, 1981; Fishbein & Ajzen, 1975; Sheppard, Hartwick, & Warshaw, 1998). Beerli and Martin (2004) confirmed that word of mouth (WOM) derived from significant reference groups such as friends or family can influence subjects' perceptions in destination image. In accordance with the findings of Hsu, Kang, and Lam (2006) that the reference group has an influence on travel behavior, Lam and Hsu (2006) found subjective norm (SN) to be an important factor influencing Taiwanese tourists' intentions to visit Hong Kong. Lam and Hsu (2006) also confirmed that attitude and perceived behavioral control are related to travel intention. As a general rule, the more favorable is the attitude and subjective norm with respect to a behavior, and the greater the perceived behavioral control is, the stronger should be an individual's intention to perform the behavior under consideration (Armitage & Conner, 2001; Doll & Ajzen, 1992). Applied to this study, TPB suggests that a college student is more willing to take HSR while planning a long trip than other travel modes if he or she has a positive feeling towards taking HSR, wants to comply with the opinions of his/her reference group by taking HSR, and has the required resources, ability, or opportunities to take HSR. Thus, we postulate the following hypotheses.

Hypothesis 1: Attitude is positively related to college students' intention to take HSR.

Hypothesis 2: Subjective norm is positively related to college students' intention to take HSR.

Hypothesis 3: Perceived behavioral control is positively related to college students' intention to take HSR.

1.2. Novelty seeking and attitude

Consumer variation, such as demographic factors, psychographic profiles, or personality traits, is central to a consumer's attitude formation and behavioral intentions (Dabholkar & Bagozzi, 2002). One of the important personality traits is novelty seeking, which is defined as the desire to seek out new stimuli (Hirschman, 1980). Many studies suggested that novelty seeking influences attitude toward technological products (Hirschman, 1980; Mehrabian & Russell, 1974; Parasuraman, 2000). Consumers with a high propensity of novelty seeking have a stronger intrinsic motivation to employ technology-based products and to seek out new stimuli (Dabholkar & Bagozzi, 2002; Hirschman, 1980; Midgley & Dowling, 1978). Therefore, novelty-seekers are often identified as people who dare to break traditional rules, take risks, and pursue novel experiences which are different from their routine life (Cohen, 1972; Currie, 1997).

In the travel market, novelty seeking has also become a central component of travel motivation, because it may stimulate pleasures for travelers (Lee & Crompton, 1992). According to Plog (2001), adventurers are motivated by their curiosities and desires to explore new and different experiences. Such motivations are considered to be a strong inner force, driving people to explore the world around them and resulting in tourist activities (Tse & Crofts, 2005). The driving force behind such behaviors, including the need for novelty, arousal, or stimulation, can be assumed as factors of tourism behaviors (Bello & Etzel, 1985; Lee & Crompton, 1992). Therefore, when tourists are classified as being high novelty seeking, they tend to search for more information and show a continuous interest in participating similar novelty-seeking experiences (Bello & Etzel, 1985). Thus, novelty seeking is considered an influential factor on tourism behaviors in many ways, such as culinary choices (Tse & Crofts, 2005), destination revisit intention (Jang & Feng, 2007), route and destination choice (Arentze & Timmermans, 2005), and aboriginal attractions (Chang, Wall, & Chu, 2006).

To conclude, novelty seeking is often regarded as a curiosity drive or an exploratory drive which would influence consumers' attitudes toward technological products or travel destination choice (Jang & Feng, 2007). Even though novelty seeking can also impact behavioral intention directly as in the cases of pirated software purchasing among student groups (Wee, Tan, & Cheok, 1995), according to its innate nature as intrinsic motivation, we treated it as an influential factor of attitude as most researchers did. Therefore, we assumed that in the decision-making of travel mode choice, tourists with higher propensity of novelty seeking would hold more positive attitude towards new kind of transportation such as HSR. Therefore, we have the following hypothesis:

Hypothesis 4: Novelty seeking is positively related to college students' attitude toward HSR.

1.3. Trust and TPB

Trust is at the heart of all kinds of relationships (Morgan & Hunt, 1994). The nature of trust deals with the belief that the trusted party will fulfill its commitments, despite the trusting party's dependence and vulnerability (Mayer & Goes, 1988; Rotter, 1971; Rousseau, Sitkin, Burt, & Camerer, 1998). Consumer trust is defined as the expectations held by the consumer in which the service provider is dependable and can be relied upon to deliver its promises (Sirdeshmukh, Singh, & Sabol, 2002). For trust to exist, consumers must believe that the trustee has both the ability and the motivation to reliably deliver the expected quality goods or services (Gefen, Karahanna, & Straub, 2003).

Researches have demonstrated that the need for trust appears in any supplier/client business relationship characterized by a high degree of risk, uncertainty, and/or a lack of knowledge or information on consumer parts (Mayer et al., 1995). Risk and uncertainty increase under situations whereby consumers are not able to examine physical products before purchase (Parasuraman, Zeithaml, & Berry, 1985). In such a case, the need for trust is particularly important.

In travel market, trust can be defined as a willingness to rely on the tourist destination in which one has confidence, or the belief that the tourist activities in the destination are reliable (Schurr & Ozanne, 1985). From the travel and service literature, personal safety is perceived to be the highest motivation factor for tourists. When people engage in travel activities, personal safety is perceived to be the highest motivation factor for tourists (Armstrong & Mok, 1995). Thus, good quality tours may attribute to perceived safety, and thus would enhance customer satisfaction and trust, which in turn create more positive evaluations and future behavior such as revisiting (Lam & Hsu, 2006; Swanson & Kelley, 2001). More specifically, tourists' satisfaction and trust are likely to be influenced by three choice behavior attitudes: perceive safety, perceived cultural differences, and perceived convenience of transportation (Chen & Gursoy, 2001). Convenient transportation not only refers to a destination located close to the transferred spot, but also involves time needed (Chen & Gursoy, 2001). Among various transportation instruments, HSR is rather convenient and time saving when compared with other travel modes. However, the safety concern for HSR came up due to the warnings from mass media and several breakdowns before official operation. In this situation, trust is an important determinant in the public transportation choice.

For the attitude construct, Macintosh and Lockshin (1997) found that a consumer's trust in a store impacted the consumer's attitudes towards that store. High levels of trust by buyers have been found to motivate favorable attitudes and behavior (Schurr & Ozanne, 1985; Sitkin & Roth, 1993). This study views trust as a salient behavioral belief that directly affects tourists' attitude toward the behavior of taking HSR, as some studies have indicated that trust can be a direct influencer that determines people's attitude toward behavior (Bandura, 1986; Davis et al., 1989).

Mutual trust within a group improves interactions between members (Chow & Chan, 2008). In the study of information system, peers and superiors are found to have certain influences on subjects for information system (IS) usage (Taylor & Todd, 1995). Researchers also found that trust between users and IS units is highly correlated with the influence between them, and vice versa (Nelson & Coopridge, 1996). In commercial activities, trust in the relationship of buyers and sellers can increase confidentiality, and in turn, increase the quality of transaction and outcome expectations (Hosmer, 1995; Lewis & Weigert, 1985). Thus, individuals will be sufficiently motivated to comply with their important referents, i.e., intention to take HSR in the current study.

In the study of e-commerce, trust can serve as a perceptual resource that makes customers easily gain control over on-line transactions through self-efficacy. While customers trust a vendor that behaves in accordance with their expectation, the trust beliefs are likely to increase customers' perceived behavioral control over on-line transactions (Pavlou, 2002). Therefore, mutual trust between customers and merchants enhances customers' self-efficacy, and in turn, increases perceived behavior control (Wu & Chen, 2005). The same argument also holds with public transportation. Trust can increase customers' perceived behavioral control over taking HSR if customers perceive HSR to provide better service and safety assurance.

In TRA and TPB, attitudinal structure constructs mediate between beliefs and intention, although beliefs can also have a direct effect on intention (Järvenpää, Tractinsky, & Vitale, 2000). Trust is usually conceptualized as specific beliefs, so it has influence not only on behavioral intention such as purchase intention, but also on the antecedents of intention (McKnight, Cummings, & Chervany, 1998). In order to better understand the relationships between the belief structures and the antecedents of intention, we hypothesized trust beliefs as the antecedents of attitudinal constructs – attitude, subjective norm, and perceived behavioral controls as follows.

Hypothesis 5: Trust is positively related to the attitude to take HSR.

Hypothesis 6: Trust is positively related to the subjective norm to take HSR.

Hypothesis 7: Trust is positively related to perceived behavioral control to take HSR.

1.4. Aims of the study

Applying TPB to the willingness to take HSR, we expect the results that tourists are more likely to develop an intention to take HSR if they: (1) hold positive attitudes about the behavior, (2) expect family and friends to approve of the behavior, and (3) believe they have the resources such as time or money to undertake the behavior. Furthermore, it is postulated in this paper that two more constructs – novelty seeking and trust – are likely to influence tourists' willingness of taking HSR. These constructs are reviewed after the core constructs of TPB. In sum, aims of this study were:

1. To explore the use of a modified version of the theory of planned behavior as a model predicting college students' intention in taking HSR.
2. To identify other significant predictors of intentions, such as novelty seeking and trust, to take HSR within the TPB.

2. Methodology

2.1. Participants

Participants were voluntarily recruited from undergraduate students at a university in northern Taiwan. Students participated during regular class time. A survey was developed by using existing scales and administered to the undergraduate college students. All 330 students were invited to participate in the survey, and 300 (91%) of them provided useable responses. There are almost an equal percentage of females (51%) and males (49%). The majority of participants were 20 years old or younger (58%). The majority of monthly allowance was less than NT\$10,000 (74%). Roughly, 80% of our subjects did not have an experience of taking HSR.

2.2. Measures

The study used existing validated scales. Backward translation was used to ensure consistency between the Chinese and the original English of the instrument (Reynolds, Diamantopoulos, & Schlegelmilch, 1993). First, the items from the previous studies were translated from English into Chinese by two professors from a business school. Second, the scale items were repeatedly modified via pre-tests. The initial version of the survey instrument was then refined through a pre-test with 30 subjects. Based on the subjects' suggestions on any confusing item in the questionnaire, some items were moderately re-worded. The second pre-test with 46 subjects was then conducted and analyzed statistically by applying exploratory factor analysis. Subjects for all the pre-tests were drawn from another university similar to our target university. Cronbach's alpha values ranged from .74 (for perceived behavior control) to .92 (for behavioral intentions). Due to low item-to-total correlation (less than .5), one item from trust and one item from novelty seeking were dropped. Third, the Chinese version was translated back into English. Two versions were compared and resolved any discrepancies. The above process can help to assure the content validity of the questionnaire. The refined instrument, in the form of a self-reported questionnaire, was then used to collect the study's data. Appendix A lists individual scale items and their correspondent sources. All items were measured with Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3. Results

3.1. Measurement model

Following recommended two-stage analytical procedures (Anderson & Gerbing, 1988; Hair, Anderson, Tatham, & Black, 1998), confirmatory factor analysis (CFA) using LIREL 8.51 was conducted to assess the reliability and validity of the measures, and then the structural relationships were examined. While the measurement model provides a confirmatory assessment of convergent validity, the test of structure model then constitutes a confirmatory assessment of nomological validity (Campbell, 1960; Cronbach & Meehl, 1955). Anderson and Gerbing (1988) concluded that two-step approach has some comparative advantages over one-step approach after employing a series of nested models and sequential chi-square difference tests. First, it allows test of significance for all pattern coefficients. Second, it allows an assessment of whether any structural model would have acceptable fit. Third, one can make an asymptotically independent test of the substantive or theoretical model of interest. Therefore, the two-stage approach can do the theory testing and the assessment of construct validity together from separate estimation of the measurement model prior to the simultaneous estimation of the measurement and structural models. That is, the measurement model together with the structure model enables a comprehensive, confirmatory assessment of construct validity (Bentler, 1976). As shown in Table 1, the overall goodness-of-fit indices of CFA indicate a satisfactory fit of the measurement model, with chi-square (χ^2) of 203.9 ($df = 155, p = .00$), χ^2/df ratio of 1.32, and other fit indices: GFI = .94, AGFI = .91, NFI = .93, NNFI = .98, RMR = .031, RMSEA = .032.

To validate our measurement model, three types of validity are assessed: content validity, convergent validity, and discriminant validity. Content validity is established by ensuring consistency between the measurement items and the existing literature. This was also accomplished by consulting senior professionals and a pre-test of the instrument. Convergent validity is assured by examining composite reliability (CR) and average variance extracted (AVE) from the measures (Hair et al., 1998). As shown in Table 1, our composite reliabilities (CR), ranging from .68 to .85, all exceed the recommend threshold of .50 (Hair et al., 1998). Furthermore, the average variances extracted (AVE) range from .42 to .72, which are also above the acceptable value of .50 except for the construct of perceived behavior control (PBC). In addition, Table 1 exhibits the loadings of the measures in our research model. As expected, all paths in the measurement model are loaded significantly at a level of .01 (the lowest t value is 10.56). Table 2 shows the means, standard deviations, and intercorrelations for all variables. The results demonstrated a significant positive correlation among behavioral intention and other constructs.

Last, discriminant validity is achieved by conducting a series of chi-square difference tests using measures of each pair of constructs (Anderson & Gerbing, 1988; O'Reilly & Chatman, 1986). The important and critical advantage of the chi-square difference test is that it allows for simultaneous pairwise comparisons for the constructs. If the chi-square difference test (with 1 df) between constrained model and unconstrained model is significant which means that two constructs are viewed as distinct, then discriminant validity is manifested. The constrained model is obtained by setting the correlation between

Table 1
Standardized loadings and reliability.

Construct and items	Standardized loading	AVE	CR	Cronbach's α
AT1	.89 ($t = 18.87$)	.72	.75	.88
AT2	.86 ($t = 18.05$)			
AT3	.80 ($t = 16.21$)			
SN1	.70 ($t = 12.99$)	.62	.68	.82
SN2	.84 ($t = 16.69$)			
SN3	.82 ($t = 16.29$)			
PBC1	.72 ($t = 12.64$)	.42	.75	.72
PBC2	.62 ($t = 10.56$)			
PBC3	.63 ($t = 10.69$)			
PBC4	.64 ($t = 11.00$)			
BI1	.79 ($t = 15.38$)	.65	.85	.85
BI2	.80 ($t = 15.72$)			
BI3	.82 ($t = 16.39$)			
NS1	.83 ($t = 17.07$)	.65	.85	.80
NS2	.83 ($t = 16.37$)			
NS4	.73 ($t = 13.84$)			
TR2	.70 ($t = 12.82$)	.54	.84	.81
TR3	.67 ($t = 12.11$)			
TR4	.87 ($t = 17.20$)			
TR5	.67 ($t = 12.11$)			

GFI = .94, AGFI = .91, NFI = .93, NNFI = .98, RMR = .031, RMSEA = .032, $\chi^2 = 203.94$.

Table 2
Means, standard deviations, and correlations.

	Mean	STD	AT	SN	PBC	BI	NS	TR
AT	3.43	0.82	1					
SN	3.29	0.77	0.64**	1				
PBC	3.90	0.57	0.51**	0.40**	1			
BI	3.69	0.75	0.59**	0.48**	0.49**	1		
NS	3.88	0.72	0.32**	0.36**	0.32**	0.37**	1	
TR	3.33	0.67	0.41**	0.45**	0.28**	0.40**	0.31**	1

** $p < .01$.

two constructs to 1 but allowing other constructs to co-vary. By calculating the Bonferroni method under overall .01 levels, the critical value of the chi-square test is $\chi^2(1, .01/15) = 11.58$ (Bagozzi & Yi, 1988; Hatcher, 1994). Since all the chi-square difference statistics for every two constructs all exceed 11.58 as shown in Table 3, discriminant validity is successfully achieved. Thus, all the variables in our model are viewed as distinct but correlated factors. In order to examine the relationships between independent variables and dependent variable, a further examination of hypotheses testing is needed.

Table 3
Chi-square difference tests.

Construct pair	Unconstrained $\chi^2(155) = 203.94$	
	Constrained $\chi^2(156)$	$\chi^2(1)$ difference
(AT, SN)	331.28	127.34**
(AT, PBC)	350.42	146.48**
(AT, BI)	416.17	212.23**
(AT, NS)	548.61	344.67**
(AT, TR)	573.14	369.20**
(SN, PBC)	404.75	200.81**
(SN, BI)	430.52	226.58**
(SN, NS)	569.71	365.77**
(SN, TR)	447.94	244.00**
(PBC, BI)	344.43	140.49**
(PBC, NS)	442.93	238.99**
(PBC, TR)	463.49	259.55**
(BI, NS)	552.71	348.77**
(BI, TR)	539.01	335.07**
(NS, TR)	565.03	361.09**

** Significant at the .01 overall significance level by using the Bonferroni method.

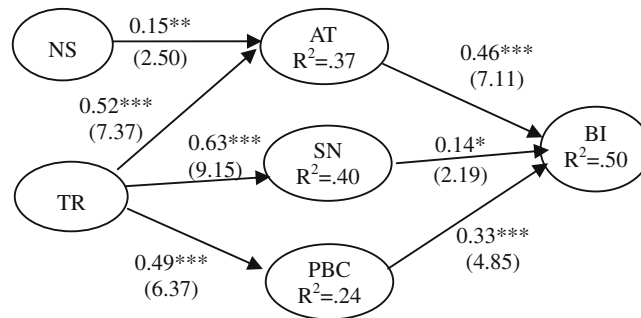


Fig. 1. Result of the research model. Notes: * $p < .05$; ** $p < .01$; *** $p < .001$.

3.2. Structural model

With an adequate measurement model, the technique of structured equation modeling is used to examine the causal structure of the proposed model in this study. The results of the analysis are depicted in Fig. 1. Again, we use LISREL 8.51 to evaluate model fit and the significance of the hypothesized paths. The results show that most of goodness-of-fit indices are under the acceptable levels ($\chi^2/df = 385.62/162 = 2.38$; RMR = .075; RMSEA = .068; NFI = .88; NNFI = .91; CFI = .92; GFI = .89; AGFI = .85). Gefen et al. (2003) indicated that GFI can be brought to .9 by dropping additional items, but in consideration of content validity, we decided to drop no more items. Besides, it is common that, in some leading marketing (e.g., JM, JMR) and MIS journals (e.g., MISQ), the LISREL models seldom show excellent fit values in all the indices (Baumgartner & Homburg, 1996; Boudreau, Gefen, & Straub, 2001).

By examining the standardized path coefficients, we found that all the paths are significant at .01 levels except for the paths from subjective norm to behavioral intention which are significant at .05 levels. As a result, all paths are significant and in the expected direction. Hypotheses 1–3 are supported as they have been in many studies by applying TPB to explain behavioral intentions. More specifically, attitude ($b = .46$; $p < .001$), subjective norm ($b = .14$, $p < .05$), and perceived behavioral control ($b = .33$; $p < .001$) all positively influence behavioral intention of selecting HSR while participating in long-distance travel. The results concur with the suggestion by Ajzen (1991). Among the three antecedents of intention, attitude has the greatest effect on behavioral intention to take HSR. On the other hand, subjective norm has the least impact on behavioral intention. The result is also consistent with that of Ajzen and Driver (1992) in that behavioral intentions are closely related to attitudes toward leisure activities, and to a lesser extent, to subjective norm. Hypothesis 4 is supported ($b = .15$; $p < .05$), indicating that novelty seeking is the antecedent of attitude. Hypotheses 5–7 ($b = .51$; $p < .001$; $b = .63$; $p < .001$; $b = .49$; $p < .001$, respectively) are supported, suggesting the important relationship of trust with the three antecedents of intention.

The present study also finds that the proposed model accounts for 37% of the variance in attitude, 40% in subjective norm, and 24% in perceived behavioral control. As for the behavioral intention, all the variables are able to account for 50% of the variance explained. Fig. 1 presents our research model as the arguments stated in all the hypotheses. The proposed model hypothesizes that novelty seeking serves as an antecedent of attitude and individual's trust towards HSR affects all three antecedents of behavioral intentions (i.e., attitude, subjective norm, and perceived behavioral control), which in turn affect students' intention to take in HSR.

In addition to our proposed model, there are other alternative models derived from theory. For example, novelty seeking and trust could also affect behavioral intention directly. However, as we mentioned in the hypothesis development, attitude structure constructs mediate between beliefs and intention (Järvenpää et al., 2000). The advantage of our proposed model is to identify specific salient beliefs and provide a more complete understanding of behavioral intention. Therefore, the indirect effects of novelty seeking and trust are also assessed. We found that the indirect effect of novelty seeking on intention via attitude is .07 (.15 * .46) and .49 for trust via three antecedents of intention (.52 * .46 + .63 * .14 + .49 * .33). Alternatively, if we add two paths from novelty seeking and trust to the behavioral intention, then the paths from subjective norm to intention and from trust to intention become insignificant (t value = .54 and 1.28, respectively). Besides, the goodness-of-fit indices do not improve. Therefore, our proposed model shows good fit to the data and provides more information than other alternative models do.

In conclusion, attitude and perceived behavioral control are two major influential factors of intention. Novelty seeking and trust also exert their influence on behavioral intention via attitude, subjective norm, and perceived behavioral control.

4. Discussion

Travel mode-choice models are evaluated according to different purposes of trip (e.g., work versus travel). High-speed train services are able to attract people who previously chose to take traditional trains, buses, or cars. However, the travel mode choice of HSR for college students who have little concern about time and a highly constrained budget remains

unknown. This study has highlighted the major factors in affecting the travel mode choice by adopting and extending the theory of planned behavior of Ajzen (1991). Our research model is well supported and all hypotheses are confirmed. We found that attitude and subjective norm respectively have the greatest and least impact on students' intention to take HSR. Furthermore, novelty seeking and trust also impact students' intention to take HSR indirectly via attitude and three antecedents of intention respectively.

The results indicate that a favorable attitude toward HSR has a decisive influence on the behavioral intention among three factors. Therefore, the Taiwan High Speed Rail Road Corporation (THSRC) can attract student riders by enhancing a positive inclination about itself. Next, the effect of perceived behavioral control on intention is also very strong only less than attitude. Therefore, acceptable fare and convenient access to tourist attractions are suggested to enhance students' ability to take HSR. Last, subjective norm has the least effect on intention as many researches asserted (Ajzen & Driver, 1992; Sheppard et al., 1988) despite of its inconsistency with the study of travel destination issue among Taiwanese travelers (Lam & Hsu, 2006). The incongruity might have its origin in the moderate role of subjective norm as some researchers asserted that stronger group identity leads to stronger norm–intention correlations (Johnston & White, 2003; Terry & Hogg, 1996). As referents became more specific, the subjective norm–intention correlation increased (Lee, Murphy, & Swilley, 2009). Thus, replacing subjective norm with group norm is suggested to help address this weakness since group norm and attitude are interdependent (Smith, Terry, & Hogg, 2006; Terry & Hogg, 1996). Other possible explanation is the strong interdependency between subjective norm and attitude, which would cause the weak relationship between subjective norm and intention since the linkage is stronger for attitude and intention. Nevertheless, the weak effect of subjective norm implies that in the domestic travel market, college students can make their own decisions independently while arranging their leisure activities with less need for further consultation from families or friends.

Novelty seeking is the intrinsic motivation to seek out new stimuli, new experiences, and novel products. Our study suggests that novelty seeking has indirect significant influences on students' intention to take HSR via attitude toward HSR. It appears that low intention to take HSR may be attributed to a lack of positive attitude towards HSR, which is influenced significantly by students' tendency of novelty seeking. Therefore, promotions about new stimuli and novel experiences of trips by HSR could enhance the favorableness of position and appraisal towards HSR, leading to a stronger willingness to take it. Since novelty seeking is an important motivational factor behind attitude and behavioral intention, certain practical ways can trigger tourists' inner desire to seek novel experiences of taking HSR are suggested. First, an electronic ticket such as EasyCards endorsed by sport stars or idols instead of disposable paper ticket can increase students' intention to hold one, and thus enhance the likelihood to take HSR. Second, it is recommended to duplicate the successful experience of 'Panda Shuttles' launched by Mass Rapid Transit (MRT). Other types of theme shuttles cooperated with recreational areas, scenic parks, or amusement parks can definitely attract tourists from distant and remote areas with adequate promotion and package tickets. Third, concerts and fireworks held near HSR stations during special holidays such as the New Year's Eve countdown or Taipei Lantern Festival can lure tourists especially students gathering from different districts of Taiwan. Last, periodical cooperation with other transportation companies (e.g., bus, MRT, railroad company), hotels, and scenic parks can promote the industry of tourism and transportation. Consequently, HSR can enjoy great benefits through above strategies by providing fast and convenient services to attract tourists with high novelty-seeking tendency.

In the same way, the results show that trust has indirect significant influences on students' intention to take HSR via attitude, subjective norm, and perceived behavioral control. It indicates that low intention to take HSR may be ascribed to unfavorable attitude towards HSR, the influence of relevant groups, and perceptual resources or opportunities to take HSR, which in turn are influenced by the trust towards HSR. Besides, trust is more critical in attitude-enhancing than novelty seeking is, because for traveling, personal safety is the primary goal for tourists. To reduce risk and uncertain doubts in passengers' mind, THSRC should try every effort on a regular intense scrutiny of physical facilities to enhance its promise on safety and its corporate image of trust. As Berry (1995) stressed that "trust is the basis for loyalty", THSRC can enhance a favorable attitude toward HSR among tourists by promoting its trustworthy brand image. By doing so, THSRC should exhibit its maintenance and management ability manifestly and pledge tourists' safety over the hybrid Germany–Japan system publicly. Moreover, higher quality service and comfortable seats must be provided and maintained to keep up with the high-fare HSR tickets.

There are several limitations of the current study that need to be addressed. First, the use of a convenient sample of students may impact the generalization of these findings. Further multiple random samples would help to generalize the results. Different tourism groups can be put into consideration and comparison, such as independent tourists, group tourists, or international groups, or even tourist groups from China. Second, this is a cross-sectional study with no data to test the effects on subsequent behavior. To get a whole picture of travel mode choice, the subsequent behavior of taking HSR or a simultaneous model of attitude–behavior formation is needed. Finally, it is recommended that future studies could compare the magnitude with other important factors, such as comfort, convenience, reliability, dependability, and time and budget constraints. By including some of the above important variables, we might make a better fit into the model.

This study has provided useful insights into a model of tourist behavioral intention by HSR based on TPB, and the results show relatively good predictive validity. In our sense, no other study has ever investigated the influential factors on the intention of taking Taiwan High-Speed Train (THSR). For future research, a multi-attribute approach or alternative models can be conducted to understand the whole picture of tourists' travel mode choice. In addition, future studies may investigate if past behavior serves as a moderator in the causal relationship between the antecedents and behavioral intention or loyalty as more and more travels have the experiencing of taking HSR. Some other personal traits can also be tested for moderating

effect. Finally, further research should explore relationships between image attribute toward HSR and behavioral issues, such as travel motivation, tourists' attitude toward service quality, and satisfaction.

Appendix A. Measures of constructs

Construct	Source
If I take a trip to southern Taiwan, ...	
<i>Attitude</i>	
AT1. ... I think taking HSR would be a good idea	Taylor and Todd (1995),
AT2. ... I think taking HSR would be a wise idea	Bhattacharjee (2000)
AT3. ... I like the idea of taking HSR	
<i>Subjective norm</i>	
SN1. ... people who are important to me would support me to take HSR	Taylor and Todd (1995),
SN2. ... people who influence me would want me to take HSR instead of any alternative means	Bhattacharjee (2000)
SN3. ... people whose opinions I value would prefer that I should take HSR	
<i>Perceived behavior control</i>	
PBC1. ... I am able to take HSR	Taylor and Todd, 1995, Mathur
PBC 2. ... I think taking HSR would be entirely within my control	(1998), Sparks (2007)
PBC 3. ... I think taking HSR in the next 12 months would be very easy	
PBC 4. ... I have enough money to take HSR in the next 12 months	
<i>Behavioral intention</i>	
BI1. ... I will try to take HSR	Ajzen and Driver (1992), Taylor and
BI2. ... I intend to take HSR	Todd (1995), Bhattacharjee (2000)
BI3. ... I want to take HSR	
<i>Novelty seeking</i>	
NS1. I am always seeking new ideas and experiences	Mehrabian and Russell (1974), Lee
NS2. When things get boring I like to find some new and unfamiliar experience	and Crompton (1992)
NS3. I like to continually change activities**	
NS4. I like to experience novelty and change in my daily routine	
<i>Trust</i>	
TR1. Based on my perception with HSR, I think it is very responsive to customers**	Sirdeshmukh et al. (2002),
TR2. Based on my perception with HSR, I know it is safe	Mayer et al. (1995)
TR3. Based on my perception with HSR, I know it cares about customers	
TR4. I trust HSR	
TR5. Based on my perception with HSR, I believe it provides good service	

** These items which did not fit well in the model during CFA were dropped to better improve the model goodness-of-fit.

References

- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action-control: From cognition to behavior* (pp. 11–39). New York: Springer.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211.
- Ajzen, I., & Driver, B. (1992). Application of the theory of planned behavior to leisure choice. *Journal of Leisure Research*, 24(3), 207–224.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888–918.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall.
- Ajzen, I., & Madden, T. (1986). Prediction of goal-directed behavior: The role of intention, perceived control, and prior behavior. *Journal of Experimental Social Psychology*, 26, 305–328.
- Anderson, J., & Gerbing, D. (1988). Structural equation modeling in practice. A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423.
- Arentze, T., & Timmermans, H. (2005). Information gain, novelty seeking and travel: A model of dynamic activity-travel behavior under conditions of uncertainty. *Transportation Research Part A*, 39(2–3), 125–145.
- Armitage, C., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British Journal of Social Psychology*, 40(4), 471–499.
- Armstrong, R., & Mok, C. (1995). Leisure travel destination choice criteria of Hong Kong residents. *Journal of Travel & Tourism Marketing*, 4(1), 99–104.
- Bagozzi, R. (1981). Attitudes, intentions, and behavior: A test of some key hypotheses. *Journal of Personality and Social Psychology*, 41(4), 607–627.
- Bagozzi, R., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.

- Baumgartner, H., & Homburg, C. (1996). Applications of structural equation modeling in marketing and consumer research: A review. *International Journal of Research in Marketing*, 13(2), 139–161.
- Beerli, A., & Martin, J. (2004). Factors influencing destination image. *Annals of Tourism Research*, 31(3), 657–681.
- Bello, D., & Etzel, M. (1985). The role of novelty in the pleasure travel experience. *Journal of Travel Research*, 24(1), 20–26.
- Bentler, P. (1976). Multistructure statistical model applied to factor analysis. *Multivariate Behavioral Research*, 11(1), 3–25.
- Berger, I. (1993). A framework for understanding the relationship between environmental attitudes and consumer behaviors. *Marketing Theory and Application*, 4, 157–163.
- Berry, L. (1995). Relationship marketing of services - growing interest, emerging perspectives. *Journal of the Academy of Marketing Science*, 23(4), 236–245.
- Bhattacherjee, A. (2000). Acceptance of e-commerce services: The case of electronic brokerages. *IEEE Transactions on Systems, Man and Cybernetics. Part A*, 30(4), 411–420.
- Boudreau, M., Gefen, D., & Straub, D. (2001). Validation in information systems research: A state-of-the-art assessment. *MIS Quarterly*, 25(1), 1–16.
- Campbell, D. (1960). Recommendations for APA test standards regarding construct, trait, or discriminant validity. *American Psychologist*, 15(8), 546–553.
- Chang, J., Wall, G., & Chu, S. (2006). Novelty seeking at aboriginal attractions. *Annals of Tourism Research*, 33(3), 729–747.
- Chen, J., & Gursoy, D. (2001). An investigation of tourists' destination loyalty and preferences. *International Journal of Contemporary Hospitality Management*, 13(2), 79–85.
- Chow, W., & Chan, L. (2008). Social network, social trust and shared goals in organizational knowledge sharing. *Information & Management*, 45(7), 458–465.
- Cohen, E. (1972). Towards a sociology of tourism. *Social Research*, 39(2), 164–182.
- Conner, M., & Abraham, C. (2001). Conscientiousness and the theory of planned behavior: Toward a more complete model of the antecedents of intentions and behavior. *Personality and Social Psychology Bulletin*, 27(11), 1547–1561.
- Conner, M., Warren, R., Close, S., & Sparks, P. (1999). Alcohol consumption and the theory of planned behavior: An examination of the cognitive mediation of past behavior. *Journal of Applied Social Psychology*, 29, 1676–1704.
- Crompton, J. (1979). Motivations for pleasure vacation. *Tourism: Critical Concepts in the Social Sciences*, 6(4), 408–424.
- Cronbach, L., & Meehl, P. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52(4), 281–302.
- Currie, R. (1997). A pleasure-tourism behaviors framework. *Annals of Tourism Research*, 24(4), 884–897.
- Dabholkar, P., & Bagozzi, R. (2002). An attitudinal model of technology-based self-service. moderating effects of consumer traits and situational factors. *Journal of the Academy of Marketing Science*, 30(3), 184–201.
- Davis, F., Bagozzi, R., & Warshaw, P. (1989). User acceptance of computer technology: A comparison of two theoretical models. *Management Science*, 35(8), 982–1003.
- Doll, J., & Ajzen, I. (1992). Accessibility and stability of predictors in the theory of planned behavior. *Journal of Personality and Social Psychology*, 63, 754.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley Pub. Co.
- Fröidh, O. (2005). Market effects of regional high-speed trains on the Svealand line. *Journal of Transport Geography*, 13(4), 352–361.
- Gefen, D., Karahanna, E., & Straub, D. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly*, 51, 90.
- Georggi, N., & Pandyala, R. (1999). *Analysis of long-distance travel behavior of the elderly and low income*. Transportation Research Circular (pp. 121–150). Washington DC: Transportation Research Board.
- Goossens, C. (2000). Tourism information and pleasure motivation. *Annals of Tourism Research*, 27(2), 301–321.
- Hair, J., Anderson, R., Tatham, R., & Black, W. (1998). *Multivariate data analysis*. Upper Saddle River.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*. SAS Publishing.
- Hirschman, E. (1980). Innovativeness, novelty seeking, and consumer creativity. *The Journal of Consumer Research*, 7(3), 283–295.
- Hosmer, L. (1995). Trust: The connecting link between organizational theory and philosophical ethics. *The Academy of Management Review*, 20(2), 379–403.
- Hsu, C., Kang, S., & Lam, T. (2006). Reference group influences among Chinese travelers. *Journal of Travel Research*, 44(4), 474–484.
- Jang, S., & Feng, R. (2007). Temporal destination revisit intention: The effects of novelty seeking and satisfaction. *Tourism Management*, 28(2), 580–590.
- Järvenpää, S., Tractinsky, N., & Vitale, M. (2000). Consumer trust in an Internet store. *Information Technology and Management*, 1(1), 45–71.
- Johnston, K., & White, K. (2003). Binge-drinking: A test of the role of group norms in the theory of planned behaviour. *Psychology & Health*, 18(1), 63–77.
- Kaul, R. (1985). *Dynamics of tourism: A trilogy, transportation and marketing*. Nova Delhi: Sterling Publishers.
- Khadaroo, J., & Seetanah, B. (2007). Transport infrastructure and tourism development. *Annals of Tourism Research*, 34(4), 1021–1032.
- Lam, T., & Hsu, C. (2006). Predicting Behavioral Intention of Choosing a Travel Destination. *Tourism Management*, 27(4), 589–599.
- Lee, T., & Crompton, J. (1992). Measuring novelty seeking in tourism. *Annals of Tourism Research*, 19, 732.
- Lee, R., Murphy, J., & Swilley, E. (2009). The moderating influence of hedonic consumption in an extended theory of planned behaviour. *The Service Industries Journal*, 29(4), 539–555.
- Leiper, N. (1984). Tourism and leisure: The significance of tourism in the leisure spectrum. In *Proceedings of the 12th New Zealand Geographical Society Inc.*
- Lewis, J., & Weigert, A. (1985). Trust as a social reality. *Social Forces*, 63(4), 967–985.
- Macintosh, G., & Lockshin, L. (1997). Retail relationships and store loyalty: A multi-level perspective. *International Journal of Research in Marketing*, 14(5), 487–497.
- Mathur, A. (1998). Examining trying as a mediator and control as a moderator of intention-behavior relationship. *Psychology & Marketing*, 15(3), 241–259.
- Mayer, R., Davis, J., & Schoorman, F. (1995). An integrative model of organizational trust. *The Academy of Management Review*, 20(3), 709–734.
- Mayer, A., & Goes, J. (1988). Organizational assimilation of innovations: A multilevel contextual analysis. *The Academy of Management Journal*, 31(4), 897–923.
- McKnight, D., Cummings, L., & Chervany, N. (1998). Initial trust formation in new organizational relationships. *The Academy of Management Review*, 23(3), 473–490.
- Mehrabian, A., & Russell, J. (1974). *An Approach to environmental Psychology*. MA: MIT press Cambridge.
- Midgley, D., & Dowling, G. (1978). Innovativeness: The concept and its measurement. *Journal of Consumer Research*, 4(4), 229–242.
- Morgan, R., & Hunt, S. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38.
- Moutinho, L. (1987). Consumer Behaviour in Tourism. *European Journal of Marketing*, 21(10), 5–45.
- Nelson, K., & Coopridge, J. (1996). The contribution of shared knowledge to IS group performance. *MIS Quarterly*, 409, 432.
- O'Reilly, C., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71(3), 492–499.
- Parasuraman, A. (2000). Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, 2(4), 307–320.
- Parasuraman, A., Zeithaml, V., & Berry, L. (1985). A conceptual model of service quality and its implications for future research. *Journal of Marketing*, 49(4), 41–50.
- Pavlou, P. (2002). Institution-based trust in interorganizational exchange relationships: The role of online B2B marketplaces on trust formation. *The Journal of Strategic Information Systems*, 11(3–4), 215–243.
- Plog, S. (2001). Why destination areas rise and fall in popularity: An update of a Cornell Quarterly classic. *Cornell Hotel and Restaurant Administration Quarterly*, 42(3), 1–12.
- Randall, D., & Gibson, A. (1991). Ethical decision making in the medical profession: An application of the theory of planned behavior. *Journal of Business Ethics*, 10(2), 111–122.
- Reinecke, J., Schmidt, P., & Ajzen, I. (1996). Application of the theory of planned behavior to adolescents' condom use: A panel study. *Journal of Applied Social Psychology*, 26(9), 749–772.

- Reynolds, N., Diamantopoulos, A., & Schlegelmilch, B. (1993). Pre-testing in questionnaire design: A review of the literature and suggestions for further research. *Journal-Market Research Society*, 35, 171.
- Rotter, J. (1971). Generalized expectancies for interpersonal trust. *American Psychologist*, 26(5), 443–452.
- Rousseau, D., Sitkin, S., Burt, R., & Camerer, C. (1998). Not so different after all: A cross-discipline view of trust. *Academy of Management Review*, 23(3), 393–404.
- Schurr, P., & Ozanne, J. (1985). Influences on exchange processes: Buyers' preconceptions of a seller's trustworthiness and bargaining toughness. *Journal of Consumer Research*, 11(4), 939–953.
- Sheppard, B., Hartwick, J., & Warshaw, P. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, 15(3), 325–343.
- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37.
- Sitkin, S., & Roth, N. (1993). Explaining the limited effectiveness of legalistic "remedies" for trust/distrust. *Organization Science*, 4(3), 367–392.
- Smith, J., Terry, D., & Hogg, M. (2006). Who will see me? The impact of type of audience on willingness to display group-mediated attitude–intention consistency. *Journal of Applied Social Psychology*, 36(5), 1173–1197.
- Sparks, B. (2007). Planning a wine tourism vacation? Factors that help to predict tourist behavioural intentions. *Tourism Management*, 28(5), 1180–1192.
- Swanson, S., & Kelley, S. (2001). Attributions and outcomes of the service recovery process. *Journal of Marketing Theory and Practice*, 9(4), 50–65.
- Taiwan Tourism Bureau (2006). Survey of Travel by R.O.C. Citizens. <<http://admin.taiwan.net.tw/english/statistics>>.
- Taylor, S., & Todd, P. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6, 144–176.
- Terry, D., & Hogg, M. (1996). Group norms and the attitude–behavior relationship: A role for group identification. *Personality and Social Psychology Bulletin*, 22(8), 776–793.
- Tourism Task Force (2003). Down the track; better ways to deliver tourism's land transport infrastructure. Tourism Task Force, Australia. <www.ttf.org.au>.
- Tse, P., & Crofts, J. (2005). Antecedents of novelty seeking: International visitors' propensity to experiment across Hong Kong's culinary traditions. *Tourism Management*, 26(6), 965–968.
- Wee, C., Tan, S., & Cheok, K. (1995). Non-price determinants of intention to purchase counterfeit goods. *International Marketing Review*, 12(6), 19–46.
- Wu, I., & Chen, J. (2005). An extension of trust and TAM model with TPB in the initial adoption of on-line tax: An empirical study. *International Journal of Human–Computer Studies*, 62(6), 784–808.