

## Information asymmetries on Quality: The Case of Chinese Package Tourists

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### ABSTRACT

*This study is concerned with a type of tour package businesses referring to as “zero-fare” group tours. The terminology of “zero-fare” group tours was coined exclusively in the Chinese context and has been widely used in the industry to describe a relationship of sharing tour fares between wholesale travel agents (WTAs) and inbound tour operators (ITOs), indicating that the former, in principle, transfers no tour fares downward to the latter for service arrangements. The fundamental proposition in this study is that the problem of “zero-fare” group tours is quality deterioration which is arguably the consequence of information asymmetries. This proposition can be justified by referring to three prominent features of services and package tours in particular, namely intangibility, heterogeneity, and inseparability of production and consumption, which have been extensively researched but not yet in relation to information asymmetry. Evidence is presented for a preliminary validation of this proposition and the associated hypotheses.*

**Key words:** *information asymmetry, reputation, “zero-fare” group tours, China*

# 1 INTRODUCTION

Package tours have represented the dominant international travel mode in the aftermath of the Second World War and today are the largest travel business worldwide. The business of package tours has nevertheless witnessed severe quality problems in various forms including information misrepresentation (Sheldon, 1986), tour operators' default on contract (Atherton, 1994; Elton, 1984; Grant, 1996; Reece, 2009), and cheating tourists at the destination (Jia, 2004; Keating, 2009; Prideaux, *et al.*, 2006). Among the most prominent of these are the so-called "zero-fare" group tours (Jia, 2004; Zhang, Heung, and Yan, 2009). This terminology was exclusively coined in the Chinese context and has been widely used in the industry to describe a relationship of sharing tour fares between wholesale travel agents (WTAs) and inbound tour operators (ITOs), indicating that the former, in principle, transfers no tour fares downward to the latter for service arrangements. Such a relationship is remarkably in contrast with the one in the normal business model in which WTAs and ITOs share tour fares on a pre-negotiated proportional basis. Quality deterioration of this kind which is characterized by the "zero-fare" relation refers to as the problem of "zero-fare" group tours in the present study.

Theoretical analysis of this problem has proceeded by examining, first, the market structure of both the generating market and the destination (e.g., Dwyer, King, and Prideaux, 2007; King, Dwyer, and Prideaux, 2006; Prideaux, *et al.*, 2006) and, second, the pricing strategies taken by WTAs in the generating market (Zhang, *et al.*, 2009). The first line of the research contends that WTAs are advantageous over ITOs in a way of controlling tourist flows from the generating market to the destination and can thus squeeze profits from the supply chain; in response, ITOs may reduce costs by cutting service quality at the destination because the low tour fares transferred by WTAs are insufficient for recouping profits. Plausible evidence for this argument can be found in Australia's inbound tourism from China and South Korea where tourist flows originated largely underpin the tourism development of Australia (Dwyer, *et al.*, 2007; King, *et al.*, 2006; Prideaux, *et al.*, 2006). The second line simply views the business of "zero-fare" group tours as a type of pricing strategies, such as penetration pricing, by which WTAs can dramatically expand their market share especially when an off-peak season is in presence; and sustaining low price by cutting quality is arguably optimal for both WTAs and ITOs at least in a short-term (Zhang, *et al.*, 2009).

Previous research has not acknowledged the complex of package tours as credence qualities which are characterized by a large amount of information asymmetries (see Darby and Karni, 1973). The fundamental proposition of this study is that the problem of "zero-fare" group tours is the consequence of information asymmetries involved in the transactions between tourists, WTAs and ITOs. This proposition can be justified by referring to three prominent features of package tours as a bundle of services, namely intangibility, heterogeneity, and inseparability of production and consumption, which have been extensively researched but not yet in relation to information asymmetry. The relation as this study argues is that these three features impede information dissemination from tour operators to tourists. Tourists are, as a matter of fact, asymmetrically ill-informed throughout the trip, either when transacting with WTAs in the generating market or when being supplied by ITOs at the destination. Theories of information asymmetry are expected to provide a best way forward to model the problem of

“zero-fare” group tours.

## **2 LITERATURE REVIEW AND HYPOTHESES**

This section presents a concise review of economic studies on both information asymmetry and reputation, which lay out the theoretical foundation of the present study. A set of working hypotheses that follow are proposed in relation to applications of information asymmetry and reputation in the marketing literature, suggesting that information asymmetry is the cause of quality deterioration while reputation can mitigate the impact of information asymmetry and thereby alleviating quality deterioration to some extent. This section articulates three prominent relationships that underpin the theoretical model of the present study, namely the relationships between information asymmetry and quality, reputation and quality, and information asymmetry and reputation.

### **2.1 Information Asymmetry and Reputation**

The idea of information asymmetry was proposed as economists realized that information is actually incomplete or imperfect in the market (Hayek, 1945; Stigler, 1961; Stiglitz, 1989). Without this recognition the economic problems, as Hayek (1945) puts it, will be simplified to a purely mathematical calculation in nature. The significance of imperfect information as in the scope of the present study, however, does not lie in its contribution to economic studies in general, but in its fundamental role in explaining quality deterioration. The probability of quality being deteriorated is simply because quality might be misrepresented or underprovided by sellers who have an informational advantage over buyers (Akerlof, 1970; Spence, 1977). In other words, it is impossible for sellers to misrepresent information or underprovide quality provided that the buyers possess equal amount of information as the sellers do, that is, no information asymmetry between buyers and sellers. Information asymmetry is arguably the paramount cause of quality deterioration and the market failure (Akerlof, 1970; Darby and Karni, 1973; Greif, 1993; Stiglitz, 1989).

The concept of reputation has long been modeled as a market mechanism to alleviate information asymmetry and thus functions to sustain quality (Allen, 1984; Klein and Leffler, 1981; Rogerson, 1983; Shapiro, 1982, 1983; Stiglitz, 1989; Tadelis, 1999). The role that reputation plays is to both provide incentives to sellers in the form of price premiums and disclose quality information to buyers, the latter of which can help to reduce information asymmetry on the buyer's side. This is because reputable sellers need to distinguish themselves from low-quality sellers in a means of disseminating information to buyers for increasing repeat purchase. Reputation therefore not only indicates that sellers have committed to high-quality provision but also suggests a mechanism of information signaling (Klein and Leffler, 1981). This signaling mechanism may specifically suggest that high prices indicate high qualities if sellers devote to supplying high quality for reputation building (Shapiro, 1983).

### **2.2 Hypotheses**

Theories of information and reputation have underscored a set of four inter-connected constructs, that is, asymmetric information, reputation, price, and quality. Prior to presenting the

hypotheses, we operationalize these four constructs in the package tour context as to include WTA-level asymmetric information, ITO-level asymmetric information, WTAs' reputation, ITOs' reputation, price sensitivity, and service performance. We propose an idea of production technology by which tour operators (WTAs) package a number of service components for producing tour packages. Production technology is inaccessible to tourists and thus represents WTA-level asymmetric information between tourists and WTAs. Effort that ITOs exert in delivering service represents ITO-level asymmetric information between tourists and ITOs. We distinguish between WTAs' reputation and ITOs' reputation to be consistent with the roles that WTAs play for providing information in the generating market and ITOs play for supplying services at the destination, respectively.

### *2.2.1 Asymmetric Information, Price Sensitivity, and Service Performance*

Buyers commonly use price as an indicator of quality, especially when they have little access to product information (Goldsmith and Newell, 1997). This suggests that price sensitivity has an inverse relationship with information available to buyers especially regarding product characteristics other than price. For instance, Tellis and Gaeth (1990) found that buyers tended to be price-seeking or price-averse as their uncertainty about product quality increased, indicating that the availability of quality information affects price sensitivity. However, price information might be negatively related to price sensitivity for some products which involve a large amount of asymmetric information (Parker, 1995). As buyers can costlessly access to price rather than quality information, they tend to make their decisions solely on price, and further, to search the lowest price. On the other hand, well-informed buyers are less likely to make price-quality inferences because they can make their choices based on quality information rather than price. The hypothesis is therefore formalized in the package tour context as:

*Hypothesis 1 (H<sub>1</sub>): Tourists' awareness of production technology negatively affects their price sensitivity.*

The improved information on the buyer's side might result in a reduction of quality deterioration and cheating (Darby and Karni, 1973; Jin and Leslie, 2003; Nelson, 1970; Shapiro, 1983). This reflects an intuitive belief amongst economists that imperfect information is a cause of quality deterioration. Jin and Leslie (2003) found, in the case of food quality, that food hygiene was improved after customers were informed about hygiene grade in restaurants. Specifically, after the restaurants being researched were required to publicly display the hygiene grade cards in their windows, hygiene quality improvements were observed in terms of the increased restaurant health inspection scores, sensitivity of demands to hygiene quality, and the decreased foodborne illness. Evidence was also found in the online auctions where the buyers and the sellers had no actual interaction when the transaction was undertaking; the buyers exclusively relied on the comments about the sellers left by others to judge quality (Melnik and Alm, 2002). The relationship between asymmetric information and quality can be hypothesized as:

*Hypothesis 2 (H<sub>2</sub>): Tourists' awareness of ITOs' effort positively affects service performance.*

### *2.2.2 Reputation, Price Sensitivity, and Service Performance*

A positive relationship between quality and reputation has been verified not only in theory (Hörner, 2002; Klein and Leffler, 1981; Shapiro, 1983) but also in a number of empirical studies especially in relation to the online auctions (e.g., Houser and Wooders, 2006; Resnick, *et al.*, 2006). Reputation theories ascertain that price premium is necessary and sufficient for high quality production (Allen, 1984; Klein and Leffler, 1981; Shapiro, 1983). The price premium interpreted on the buyer's side is that buyers are more willing to pay higher prices for high-quality products. In other words, buyers are less price sensitive when they are aware that they are purchasing high qualities. This assertion also applies in the tourism context, suggesting that tourists who are motivated by quality and reputation are reconciled to paying more both at the destination and in the generating market (Alegre and Juaneda, 2006). To explore the impact of reputation on price sensitivity across a range of products, Erdem, Swait, and Louviere's (2002) study revealed a significantly negative relationship between the two, *ceteris paribus*. It is therefore reasonable to propose the hypotheses below:

*Hypothesis 3 (H<sub>3</sub>): WTAs' reputation negatively affects tourists' price sensitivity.*

*Hypothesis 4 (H<sub>4</sub>): ITOs' reputation positively affects service performance.*

Of particular interest is that whether price competition will lead to lower quality outputs when consumers cannot observe quality costlessly. A lot of professions such as doctors, lawyers, and optometrists have held that price information should not be made available at a low cost to customers, even if such information is relatively inexpensive to provide (Parker, 1995; Rogerson, 1988). Also, professional organizations have urged prohibition of any advertising based on price. This is because disclosing price information under such circumstances might result in price sensitivity when quality is unobservable; low-quality sellers might advertise more (Kranton, 2003). Buyers who were loyal to higher quality brands were found to be less price sensitive than those who were loyal to lower quality brands (Krishnamurthi, Mazumdar, and Raj, 1992). This indicates that low price sensitivity may be associated with high quality brands. The hypothesis is thus proposed as:

*Hypothesis 5 (H<sub>5</sub>): Tourists' price sensitivity negatively affects service performance.*

### *2.2.3 Asymmetric Information and Reputation*

The positive relationship between reputation and information is definite and well acknowledged as reputation itself is a signaling device of information (Allen, 1984; Klein and Leffler, 1981; Shapiro, 1983). Rogerson (1983) stated that, when the effect of reputation is in presence, high-quality sellers have more buyers than their counterparts because the positive word-of-mouth communication from the incumbent buyers may result in more new and repeat arrivals. Rob and Fishman (2005) confirmed a positive relationship between reputation and consumer base, concluding that reputation is more valuable to a firm the larger its customer base is. Reputation can speed information searching, save searching cost and, as a result, increase consumer knowledge (Mailath and Samuelson, 2001). Buyers who can obtain more information from the sellers tended to believe that the sellers have built up reputation, because as List (2006) argues reputation cannot work to sustain quality without buyers' knowledge about the sellers. Two hypotheses are proposed as

*Hypothesis 6 (H<sub>6</sub>):* Tourists' awareness of production technology positively affects WTAs' reputation; and

*Hypothesis 7 (H<sub>7</sub>):* Tourists' awareness of effort positively affects ITOs' reputation;

and by linking WTAs and ITOs in a joint production in operating package tour businesses we propose

*Hypothesis 8 (H<sub>8</sub>):* Tourists' awareness of production technology positively affects their awareness of effort.

### **3 METHODOLOGY**

We devised a cross-sectional survey to collect data for testing these hypotheses. This model requires tracking tourists' purchase and consumption from the generating market to the destination as information asymmetries are presented in sequence between tourists and WTAs, denoted by production technology, and between tourists and ITOs, denoted by effort. Data collection consisted of two parts. In the first part, we collected data regarding production technology, WTAs' reputation, and price sensitivity in the generating market; and in the second part, we collected data with respect to effort, ITOs' reputation, and service performance at the destination.

#### **3.1 Measurement**

The measurement was accomplished by resting on the theories that highlight these constructs as well as by taking account the context of package tours. The selection of exact items for each construct followed one of the two principles. First, items that measure a construct were identified and selected based on a set of individual service components that constitute a tour package, each of which was associated with the definition of the construct. This included the measurement of production technology and service performance. Second, items were selected by highlighting the essence of the construct itself while referring to the context under consideration, which included the measurement of WTAs' reputation, ITOs' reputation, price sensitivity, and effort. A total of 37 items were identified and rephrased in the statements adapting to the context of package tours.

A tourist-completed questionnaire was used for data collection. It consisted of four sections including tourists' previous travel experiences and travel-related characteristics, the present purchase experience, consumption, and demographics. Information regarding tourists' purchase experience was summarized by three constructs which are production technology, WTAs' reputation, and price sensitivity while tourists' consumption was summarized by the other three constructs which are effort, ITOs' reputation, and service performance. These six constructs were measured by a total of 37 items structured on a 7-point Likert-type scale ranging from 1 to 7, indicating respondents' level of agreement from strongly disagree to strongly agree. Demographics was obtained by requiring tourists to providing information of their gender, age, marital status, education, occupation, and monthly income.

## 3.2 Data Collection

The population consisted of Mainland Chinese tourists who took group package tours to Hong Kong over the period of data collection. Specifically, we restricted the empirical setting to the Shenzhen-Hong Kong market; those Mainland Chinese tourists departed from Shenzhen to Hong Kong were sampled. A convenient sampling method was employed to select respondents who were eighteen years old or above. Data were collected with assistance from the tour escorts who were responsible for distributing and collecting the questionnaires. Since in the business contexts WTAs normally dispatch at least one tour escort for each tour package to accompany tourists throughout the trip, tour escorts can conveniently approach to and contact tourists and, as a result, may obtain a relatively high response rate. This survey was thus administered by tour escorts and completed in October 2010. A total of 201 questionnaires were distributed in nine tour packages, to each of which was allocated approximate 15 to 40 questionnaires, and 192 in total were checked useful for data analysis.

## 3.3 Data Analysis

Data analysis primarily consisted of a test for the measurement model and a test for the structural model. For testing the measurement model we carried out an exploratory factor analysis (EFA) on a total of eighteen items after data screening to assess whether the factor structure proposed in theory can be verified against the data. A principal component analysis with Varimax was used for extracting and rotating factors; instead of extracting factors with an eigenvalue greater than one we fixed the number of the extracted factors to six as being expected in theory, as the former criteria were unable to derived a six-factor structure. A confirmatory factor analysis (CFA) was then used to assess whether the proposed measurement model fitted the data. A couple of goodness-of-fit indices including  $\chi^2$ ,  $\chi^2/df$ , the comparative fit index (CFI), the non-normed fit index (NNFI), and the root mean square error of approximation (RMSEA) were used for this assessment. The structural model was assessed by the aforementioned goodness-of-fit indices; and the strength and significance of path relations was examined for testing the hypotheses. SPSS Statistics 17.0 and AMOS 17.0 Graphics were used to conduct the above analysis.

# 4 RESULTS

## 4.1 Testing for the Measurement model

An exploratory factor analysis (EFA) was conducted to check whether these six constructs—production technology (PT), WTAs' reputation (WTAR), price sensitivity (PS), effort (EF), ITOs' reputation (ITOR), and service performance (SP)—were distinct against the data. Both Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO) of .879 and Bartlett's Test of Sphericity of 2080.187 ( $p < .001$ ) suggested that the EFA was appropriate for the data (Table 1). Results of EFA approximately confirmed a six-factor structure in the theoretical model. The construct of production technology among others explained the largest of 16.63% variance with all factor loadings above .70; the constructs of WTAs' reputation, effort, service performance, ITOs' reputation, price sensitivity were also detected as distinct with all factor loadings above .60, explaining, respectively, 12.80%, 12.62%, 11.42%, 10.17%, and 9.97% of

the variance (Table 1). Reliability of the instrument was examined by calculating *Cronbach's alpha* for each construct to assess internal consistency. *Cronbach's alpha* of these constructs ranged from .71 to .89 which was above the suggested cutoff point of .70 (e.g., Nunnally, 1978), indicating a high level of internal consistency for each construct and thus an acceptable reliability (Table 1).

**Table 1 Exploratory factor analysis of the instrument**

Factors	Factor Loading	Eigenvalue	Communality	Variance explained	Cronbach's $\alpha$
<i>F1: Production technology</i>		7.456		16.63	.87
Price proportion for meal	.858		.782		
Price proportion for sightseeing	.773		.698		
Price proportion for recreation	.761		.650		
Price proportion for shopping	.755		.708		
Price proportion for accommodation	.726		.639		
<i>F2: WTAs' reputation</i>		2.462		12.80	.89
Credibility	.832		.867		
Reliability	.823		.814		
Trustworthiness	.704		.772		
<i>F3: Effort</i>		1.562		12.62	.71
Acceptable behavior	.826		.790		
Reasonable effort	.791		.786		
Consistent behavior	.701		.721		
<i>F4: Service performance</i>		1.332		11.42	.85
Shopping service	.798		.753		
Leisure activities	.775		.751		
Meals	.730		.693		
<i>F5: ITOs' reputation</i>		1.061		10.17	.83
Competitiveness	.808		.770		
Expertise	.687		.763		
Professionalism	.661		.758		
<i>F6: Price sensitivity</i>		.848		9.97	.80
Price seeking	.780		.718		
Price consciousness	.764		.648		
Price-orientation	.761		.640		

*Notes:* Kaiser-Meyer-Olkin Measure of Sampling Adequacy is of .879, Bartlett's Test of Sphericity is of 2080.187,  $df = 190$ ,  $p < .001$ .

The measurement model was tested by carrying out a confirm factor analysis (CFA) to

assess whether the proposed measurement model fitted the data. A couple of goodness-of-fit indices including  $\chi^2$ ,  $\chi^2/df$ , CFI, NNFI, and RMSEA were used for this assessment. Results of CFA showed that the measurement model was parsimonious and satisfactory given its acceptable goodness-of-fit indices ( $\chi^2 = 243.113$ ,  $df = 155$ ,  $\chi^2/df = 1.568$ ,  $p < .001$ , CFI = .96, NNFI = .95, RMSEA = .06) (Table 2). Average variance extracted (AVE) was calculated to assess convergent and discriminant validity of the constructs. An AVE below the suggested .50 (e.g., Fornell and Larcker, 1981) was found for price sensitivity with .46, suggesting insufficient valid variance explained by its measurement and thus was little of validity; AVEs of other five constructs ranged from .57 to .74, indicating satisfactory convergent validity (Table 2). AVE for each construct was higher than the squared correlation coefficients for corresponding inter-constructs, which confirmed discriminant validity (Table 2).

**Table 2 Inter-construct correlations, average variance extracted and model fit**

Constructs	F1	F2	F3	F4	F5	F6
F1: PT	1.00					
F2: WTAR	0.43 (.18)	1.00				
F3: EF	0.37 (.14)	0.64 (.41)	1.00			
F4: SP	0.36 (.13)	0.58 (.34)	0.61 (.37)	1.00		
F5: ITOR	0.38 (.14)	0.73 (.53)	0.74 (.55)	0.57 (.32)	1.00	
F6: PS	0.43 (.18)	0.41 (.17)	0.31 (.10)	0.35 (.12)	0.25 (.06)	1.00
AVE	.57	.74	.66	.58	.63	.46
<i>Model fit indices</i>						
$\chi^2 =$	243.113	$df = 155$	$p < .001$			
$\chi^2/df =$	1.568					
CFI	.96					
NNFI	.95					
RMSEA	.06					

*Notes:* PT = Production technology, WTAR = WTAs' reputation, EF = Effort, SP = Service performance, ITOR = ITOs' reputation, PS = Price sensitivity.

## 4.2 Testing for the Structural Model

The structural equation model (SEM) was tested to verify the proposed hypotheses. A set of goodness-of-fit indices were employed to assess the structural model in terms of its parsimony and the degree to which the theoretical model fitted the data. The goodness-of-fit indices ( $\chi^2 = 341.348$ ,  $df = 162$ ,  $p < .001$ ,  $\chi^2/df = 2.107$ , CFI = .91; NNFI = .89, RMSEA = .08) indicated that the structural was parsimonious and achieved a moderate good fit for the model (Table 3).

**Table 3 Path estimates for the structural equation model**

Paths	Estimate	S.E.	Critical ration	<i>p</i> -value
$H_6$ : PT → WTAR	.401	.068	5.934	***
$H_7$ : PT → PS	.203	.064	3.165	.002
$H_8$ : PT → EF	.338	.064	5.293	***
$H_7$ : EF → ITOR	.601	.078	7.675	***

$H_2$ : EF → SP	.362	.124	2.916	.004
$H_3$ : WTAR → PS	.186	.070	2.650	.008
$H_4$ : ITOR → SP	.281	.151	1.854	.064
$H_5$ : PS → SP	.241	.098	2.449	.014
<i>Model fit indices</i>				
$\chi^2$	341.348	$df = 162$	$p < .001$	
$\chi^2/df$	2.107			
CFI	.91			
NNFI	.89			
RMSEA	.08			

Notes: PT = Production technology, WTAR = WTAs' reputation, EF = Effort, SP = Service performance, ITOR = ITOs' reputation, PS = Price sensitivity.

\*\*\* denotes  $p < .001$ .

Results of path estimates showed that production technology had significant effects on WTAs' reputation (*coefficient* = .401,  $p < .001$ ), price sensitivity (*coefficient* = .203,  $p < .05$ ), and effort (*coefficient* = .338,  $p < .001$ ). This supported the hypotheses  $H_6$ ,  $H_1$ , and  $H_8$ , respectively. Effort had significant effects on both ITOs' reputation (*coefficient* = .601,  $p < .001$ ) and service performance (*coefficient* = .362,  $p < .05$ ) which supported the hypotheses  $H_7$  and  $H_2$ . WTAs' reputation had significant effect on price sensitivity (*coefficient* = .186,  $p < .05$ ) in the generating market but this effect was positive, which contradicted to that was hypothesized; whereas the effect of ITOs' reputation on service performance (*coefficient* = .281,  $p > .05$ ) was not significant. This supported the hypothesis  $H_3$  while rejected  $H_4$ . As it was expected price sensitivity had significant effect on service performance (*coefficient* = .241,  $p < .05$ ) and thus supported the hypothesis  $H_5$ . Of particular importance were the two lines of asymmetric information—production technology and effort. Both were evident in explaining the endogenous constructs in the model as they had relative high path loadings on such endogenous constructs as WTAs' reputation and ITOs' reputation.

## 5 DISCUSSION AND CONCLUSION

Preliminary evidence of this study has validated the fundamental proposition that the problem of “zero-fare” group tours is the consequence of information asymmetries. The hypotheses are supported because the relationship between production technology and price sensitivity and between effort and service performance are statistically significant. It is evident that information and quality is closely related especially in a product complex such as package tours. The effect of reputation on quality is not as evident as being indicated by the theories, and the reason might be that reputation cannot function without information (List, 2006). That is, the presence of asymmetric information not only affects quality but also impedes reputation from functioning in sustaining quality. This can explain why severe quality problems such as “zero-fare” group tours were found in the package tour industry.

### 5.1 Information on Quality

We conceptualize information in this study as to include both asymmetric information and reputation. Asymmetric information is operationalized as production technology on the

WTA's side and effort on the ITO's side, respectively. Reputation can signal quality through reducing asymmetric information between tourists and both WTAs and ITOs. Results of this study have supported the proposition that information asymmetry is the cause of quality deterioration in the context of package tours. This proposition is verified by two hypotheses  $H_1$  and  $H_2$ , suggesting a significantly positive relationship between tourists' knowledge of production technology and price sensitivity in the generating market, and between tourists' knowledge of effort and service performance at the destination. It states specifically that tourists turn out to be price sensitive in the generating market when they know little about production technology and are more likely to be served with low quality at the destination when they know less about effort.

The signaling effect of reputation is evident in the generating market as suggested by the hypothesis  $H_3$ , which indicates a significantly positive relationship between WTAs' reputation and tourists' price sensitivity. Nevertheless, this contradicts with the reputation theories in which reputation should commend a price premium, indicating that high quality should be charged with a relatively high price (Allen, 1984; Klein and Leffler, 1981; Shapiro, 1983). On the consumer's side, it simply suggests that tourists are more willing to pay for a package tour sold by a particular tour operator if they believe the tour operator is reputable. We failed to detect a significant relationship between ITOs' reputation and service performance as being predicted by the theories. The reasons may be largely attributed to the unreliable measurement of the constructs, in particular regarding effort and ITOs' reputation. We actually to some extent failed to uncover the factor structure of effort and ITOs' reputation by an EFA in extracting those factors with an eigenvalue greater than one. The effect of ITOs' reputation might thus have been biased to that of effort.

## **5.2 Information and Reputation**

The effect of information on reputation is of particular significance and importance in this study. This effect is specified as the causal relationships between production technology and WTAs' reputation and between effort and ITOs' reputation. Verification of these two hypotheses suggests that tourists tend to perceive tour operators as having reputation if they can access to production technology and effort. When it comes to the signaling effect of reputation, this finding implies that a reputable tour operator is more likely to disseminate relevant information to tourists, one purpose of which is to distinguish itself from those supplying low quality (e.g., Shapiro, 1982, 1983). In the package tour industry, this signaling effect can be interpreted as that WTAs with established reputation in the generating market tend to inform tourists of the service components that are packaged as well as the proportions that these components individually account for in the tour package as a whole. This line of information is precisely production technology that is possessed entirely by WTAs when no reputation effect is in presence.

The roles of WTAs and ITOs in the package tour businesses are distinct as the former primarily focuses on selling package tours to tourists and the latter on delivering services. The signaling effect of ITOs' reputation differs from WTAs' reputation. That is, ITOs with established reputation tend to make their actions including effort more visible and observable to tourists. These actions may include handling tourists' problems promptly, acting in the interest of tourists and always being responsible to tourists, all of which send a message to the tourists that

ITOs have been devoted a reasonable amount of effort in delivering services. This is consistent with List's (2006) argument that reputation and information are complements. Specifically, a firm cannot establish its reputation simply by supplying high quality in a short term because it takes time for consumers to learn about quality as well as to be gradually aware of the firm's reputation. Educating consumers in a long run to reduce their information asymmetry in the transaction is thus a precondition for firms to build up reputation.

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