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# The Moderating Effects of Word-of-Mouth Intention in Online Travel Agencies Service Quality\*

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## Abstract

**Purpose:** This study examines components that dictate service quality of Online Travel Agencies. **Research design, data and methodology:** This study performed a survey that targeted people who have purchased travel products using Online Travel Agencies in the past year at Incheon International Airport. Out of 280 questionnaires, this study selected 249(88.9%) questionnaires for analysis. In analysis, this study used statistical package called ‘SPSS 22’. **Results:** Based on the results, this study identified that company reputation and transactional stability influenced consumers’ intent to share anecdotal and practical information. **Conclusions:** This study discovered several major findings. First, ‘convenience’ and ‘price’, two major factors in service quality, imposed positive effects on word-of-mouth intention of consumers. In particular, ‘convenience’ had the most significant impact. Next, this study verified the moderating effects of ‘transaction safety’ and ‘reputation’ on the effect relationships between ‘convenience’ and ‘price’, and consumer word-of-mouth intention. The results conclude that, in fact, some statistically significant differences among the effect degrees of the two independent variables on the dependent variable according to the safety level of transaction on Online Travel Agencies website do exist. In short, ‘transaction safety’ variable does have moderating effects on the above relationships.

**Keywords:** Online Travel Agencies (OTA), Online Travel Agencies (OTA) service quality, Transaction Safety, Reputation, Word-of-mouth Intention.

**JEL Classification Code:** L15, L86, M31.

## 1. Introduction

The development of information and communication technology has eliminated immense temporal and spatial constraints on the Internet, which has, in turn, created new consumption and business markets. In effect, the distribution structure of travel agencies, airlines, and hotels began to install reservation systems through the Internet (Yoon et al., 2008). Travel agencies could now expect certain corporate growth from reduction of marketing costs and real-time communication with customers, while consumers gained easy access to travel packages and information about travel destinations or accommodations

(Parasuraman, Zeithaml, & Malhotra, 2005). According to a recent survey by the Consumer Rights Forum and the Consumer Research Institute (2019) on online travel agencies (OTA) consumer experience and satisfaction, “easy reservation and payment process” made up 37.4%, which was the highest percentage for reasons why consumers utilize OTA, followed by 27.1% for “price comparison feasibility” and 22.8% for “cheaper price than offline”. In short, consumers increasingly favored OTA over offline agencies for convenience and low cost and competition among existing offline companies, online companies, and companies operation in online-offline links has intensified.

Although such intensification of competition created a plethora of services to attract customers, consumers are increasingly dissatisfied. Among the reasons, most customers have answered that online travel agencies (OTA) are unreliable (Consumer Rights Forum and the Consumer Research Institute, 2019).

OTA does not provide face-to-face service with customers. Therefore, purchases are often determined

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through detailed descriptions of products listed through websites, as well as product reviews and travel reviews from consumers (Chun, 2011). However, consumers often determine purchase based on the reliability of other consumers with preceding experience rather than from information on the company websites. Particularly, consumers depend on anecdotal information in cases of travel products, which include subjective and emotional experiential assessments (Litvin et al., 2008; O'connor, 2010).

As such, since anecdotal information on travel agencies contains appraisal information which consumers have experienced first-hand, the quality of service from the OTA inevitably influences the quality of consumer information. Given that tourism is an information-intensive industry, OTA services are heavily dependent on the quality of service provided through websites and the formation of reliability between companies and customers. While low cost was a driving force in OTA's prior growth, recent trends point that consumers' anecdotal information is a vital component to occupy a competitive edge in the heightened competition of OTA market, and companies now recognize the significance of quality in services provided online (Parasuraman, Zeithaml, & Malhotra, 2005). This research aims to extract what components dictate the quality of service from the OTA. Based on the results, this research identifies how travel agencies in terms of company reputation as well as transactional stability influence consumers' anecdotal response in their intention to share practical information.

## 2. Literature Reviews

### 2.1. Online Travel Agencies (OTA)

In the early days when travel agencies used websites, agencies had only provided ticketing services. On the other hand, recent developments in information and communication technology have led to the emergence of OTAs that allow offline travel agencies to do tasks once only possible through offline travel agencies, from checking and booking schedules to making payments as well as printing electronic ticket, on an online platform. In other words, OTA refers to a company that makes reservations or purchases of travel packages and services via the Internet, as a travel agency that provides services through direct communication with customers online (Niu, 2018).

Unlike previous information offered by offline agencies, OTA has the advantage of delivering information quicker and cheaper, quicker and easier access to information for both business and users has contributed greatly in its rapid

growth ((Koufairs & Hampton-Sosa, 2004). As the size of the Korean OTA market expanded, global OTA companies such as Expedia, Cititrip, Airbnb, Hotels.com and Agoda entered the market. It has become essential for travel agencies to provide quality service for the survival of the company and accordingly, related studies have been conducted to accommodate the rising importance.

### 2.2. Online Travel Agencies (OTA) Quality of Service

Service quality in travel agencies refers to perceived quality by comparing what travelers expect beforehand with what they actually experience in travel packages and services provided by travel agencies. With the advent of OTA, recent studies have begun to include the concept of quality for online services (Kim & Lee, 2012). However, a service quality assessment model, which consists of factors that make up the general service quality, has yet to adequately reflect the characteristics of online services. Therefore, it has become imperative to derive new service quality components that do reflect such characteristics.

Barnes and Vidgen (2001) relied on ServQual to develop an online service quality assessment model WebQual, which has developed to version 4. Online service quality, according to Web-Qual 4.0, consists of three types: usability, information, interaction. Kaynama and Black (2000) found that the dimensions of accessibility, search, design and expression, content and purpose, responsiveness, interactivity, customerization, personalization, safety and reputation are important factors in OTA service quality assessment in the E-Qual model. Sigala and Sakellariadis (2004), which was a study on people who use websites of travel agencies, concluded that reliability, responsiveness, usefulness, interactivity, and site design are important service quality components for OTAs.

In the domestic cases, Hong and Baek (2006), applying WebQual 4.0 to online bookstores, similarly concluded on usability and informality, but found dissimilarity in cases of security and individuality in interactivity. Also, according to Jindal (2012), usability, informality, security, design, interactivity consisted the online service qualities. Yoon(2006) suggested eight qualities such as ease of use, reliability, accessibility, price, website, design, personalization service, and recognition, transaction safety in the study of OTA service quality and customer loyalty.

Relying on previous works, this research extracts five components in the OTA service quality assessment: Information quality, convenience quality, price quality, customer service quality, and quality of customer relationship management.

Information quality encompasses a plethora of quality components that customers and companies produce and,

depending on the form and use of information application, may evaluate its quality with components such as understandability, reliability, timeliness, and usefulness (Poddar & Wei, 2009). Such information quality would affect customers' purchase decision, which, as a result, would influence customer satisfaction, business viability, decision level and corporate management performance (Lu and Lee, 2014). Secondly, convenience quality, which refers to the degree of ease users experience in the use or purchase of products, is often cited as a significant factor in raising business performance in the likes of customer satisfaction and willingness to purchase products while using online websites (Niu, 2018). Evaluating such convenience is an act of convenience quality and is applicable in evaluating quality components like inaccessibility, website design, ease of use, when customers use websites of travel agencies.

Thirdly, how customers compare and evaluate prices to purchase at a low cost determine price quality is another key component. Customers dig through information in hope to reduce uncertainty about a product. Therefore, this research defines price quality as "benefits of product and service quality at reasonable prices" (Lee, 2018).

Next, we derived concept of customer service quality from comprehensive consideration of the meaning of components from preceding studies such as personalization, customization, purchase safety and interactivity. Lastly, customer relationship management (or eCRM) can have similar applications to the aforementioned quality of customer service, and it has become urgent for travel agency websites to adopt eCRM, which grants customer maintenance, or the CRM concept to encapsulate higher profits and competitive edge in a highly competitive market. Recently, customer satisfaction has had a greater emotional impact on customer management than eCRM in functional and social terms (Byun, 2011).

### 2.3. Transaction Safety and Reputation

Formation of online trust between corporations and consumers has played an important role in the recent rise of e-commerce in the business sector. Particularly, transaction safety has become more important online where there are various uncertainty in obtaining information (Oh & Song, 2014). In short, trust is now a vital factor in OTA management.

According to Doney and Cannon (1997), trust forms with a five-step process of calculation-anticipation-capability-intention-transference. In other words, customers compare prices and product contents online, anticipating about a product or an agency's competency from word-of-mouth experiences. When the customers' experience intersects their expectations, customers would then recommend the

product or service to other potential customers. However, customers have become anxious about the safety of their personal information or transaction information when making payments. Therefore, transaction stability is an important variable for OTA companies in building trust with customers (Kim, Kim, & Yang, 2009). In short, if transaction stability of e-commerce is guaranteed in OTA, consumers have shown to be more satisfied than offline transactions because of the convenience of e-commerce (Devaraj, Fan, & Kohi, 2002).

Reputation is also another key variable in determining customers' purchase (Kim, Hwang, & Kim, 2007). Reputation, unlike transaction safety, is a direct reflection of the assessment of companies, or company image formed by internal and external stakeholders like customers and employees (Bordon, 2010). For OTA, company reputation is indisputably linked with word-of-mouth information formed online.

Crowther and Bacchus (2004) argued that a company with a good reputation can be more of a benefit to consumers. They also argued that the good reputation would ultimately lead to the establishment of corporate brand assets, generating a continued interest of consumers which would lead to consumer purchasing activities. Graham and Bansal (2007) studied the willingness of consumers to pay for the reputation of an airline, which is one of the sectors of the tourism industry. They discovered that consumers were willing to pay higher costs for companies that had a good corporate reputation.

In other words, reputation occupies a strategically important position at the business level while also serving as an excellent tool to differentiate the business from other competing online travel agencies.

### 2.4. Word-of-Mouth Intention

Anecdotes, or 'word-to-mouth,' refer to a process of circulating information about a product or service among consumers (Cheung & Anitsal, 2007). Consumers exchange opinions and word-of-mouth experiences to other potential consumers, performing immense influential power in determining product consumption (Fong & Burton, 2006). In other words, considering that acquaintance recommendations are often determining factors in making purchase decision, word-of-mouth information is a noteworthy concept for corporate management (Godes & Mayzlin, 2004). On the other hand, scholars have offered varying understandings of 'word-of-mouth intention' since a definitive answer about the concept has yet to be established. However, scholars do agree that word-of-mouth intention is an oral transference of information about a product or service. As defined by Park (2014), this research views word-of-mouth intention closer to intention than to activity since anecdotes often manifest into an intention to share their experience with the product or service with others via Social Network Service (SNS).

### 3. Data and Research Methodology

#### 3.1. Sampling and Measurement Scales

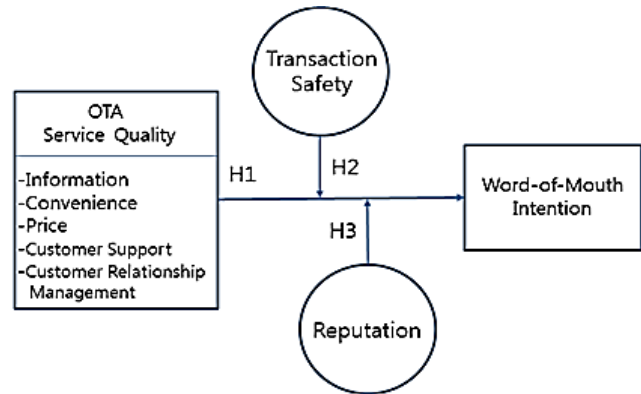
The survey in this research targeted people who have experience in using OTA to purchase travel product at Incheon International Airport from November 1 to December 28, 2019. Out of 280 questionnaires that were handed out to people waiting for the check-in time for flights or had just finished checking in, 260 questionnaires were returned, yielding a response rate of 92.8 percent. From the pile, 249 (88.9%) questionnaires were utilized in the analysis. Prior to the main survey, a pilot interview was conducted for about a week by 15 tourism industry officials, from travel agency, airline, and hotel, to assess the content validity of measurement scales. The survey questions, which were selected from previous major researches (refer to Table 1), consisted of 45 items (30 items for measuring OTA service quality, 4 for transaction safety on OTA website, 3 for OTA reputation, 3 for Word-of-mouth Intention of user, and 5 for demographic characteristics of respondent). This study analyzed the collected data using a statistical package ‘SPSS 22’, and used descriptive analysis, factor analysis and regression analysis as its statistical analysis method.

**Table 1:** Composition of Questionnaire

Classification	Theoretical Background	No. of Questions
OTA service Quality	Lee (2002), Mcknight et al. (2002), You et al. (2005), Cho (2018), Lee (2018)	30
Transaction Safety on OTA website	Koufaris & Hampton-Sosa (2004), Kim et al. (2007)	4
Reputation of OTA	Mcknight et al. (2002), Koufaris & Hampton-Sosa (2004), Kim et al. (2007)	3
Word-of-mouth Intention	Hor (2014)	3
Demographic Characteristics	Authors	5

#### 3.2. Research model and hypotheses

Through an in-depth literature review, this study established underlying research model shown in Figure 1, and arrived upon the following three hypotheses, which assesses the effect relationships between OTA service quality and word-of-mouth intention, as well as the moderating effects of both transaction safety and OTA reputation on them



**Figure 1:** Research model

**H1:** OTA (online travel agency) service quality (information, convenience, price, customer support, and customer relationship management) will have significant impacts on the word-of-mouth intention of users.

**H1a:** Information quality will have a significant impact on word-of-mouth intention of users.

**H1b:** Convenience quality will have a significant impact on word-of-mouth intention of users.

**H1c:** Price quality will have a significant impact on word-of-mouth intention of users.

**H1d:** Customer support quality will have a significant impact on word-of-mouth intention of users.

**H1e:** Customer relationship management quality will have a significant impact on word-of-mouth intention of users.

**H2:** Transaction safety will have moderating effects on the relationship between OTA service quality (information, convenience, price, customer support, and customer relationship management) and word-of-mouth intention of users.

**H2a:** Transaction safety will have a moderating effect on the relationship between information quality and word-of-mouth intention of users.

**H2b:** Transaction safety will have a moderating effect on the relationship between convenience quality and word-of-mouth.

**H2c:** Transaction safety will have a moderating effect on the relationship between price quality and word-of-mouth intention of users.

**H2d:** Transaction safety will have a moderating effect on the relationship between customer support quality and word-of-mouth intention of users.

**H2e:** Transaction safety will have a moderating effect on the relationship between customer relationship management quality and word-of-mouth intention of users.

**H3:** Reputation of OTA will have a moderating effect on the relationship between OTA service quality (information, convenience, price, customer support, and customer

relationship management) and word-of-mouth intention of users.

**H3a:** Reputation will have a moderating effect on the relationship between information quality and word-of-mouth intention of users.

**H3b:** Reputation will have a moderating effect on the relationship between convenience quality and word-of-mouth intention of users.

**H3c:** Reputation will have a moderating effect on the relationship between price quality and word-of-mouth intention of users.

**H3d:** Reputation will have a moderating effect on the relationship between customer support quality and word-of-mouth intention of users.

**H3e:** Reputation will have a moderating effect on the relationship between customer relationship management quality and word-of-mouth intention of users.

## 4. Results

### 4.1. Respondents Profile

**Table 2:** Demographic Characteristics of the Sample

Classification		Frequency	Percent(%)
Gender (n=249)	Male	59	23.7
	Female	190	76.3
Education (n=249)	High school or lower	13	5.2
	2-year College	41	16.5
	University	154	61.8
	Graduate or higher	41	16.5
Age (n=249)	20-29	94	37.8
	30-39	99	39.8
	40-49	44	17.7
	50-59	11	4.4
	60-69	1	0.4
Occupation (n=249)	Student	76	30.5
	Company employee	76	30.5
	Public officer	7	2.8
	Self-ownership	18	7.2
	Profession	33	13.3
	House wife Unemployed	38 1	15.3 0.4
Marriage (n=249)	Unmarried person	125	50.2
	The married	124	49.8

Table 2 presents demographic characteristics of respondents. Out of the 249 respondents, almost 76 percent (190) were female and the remaining 24 percent (59) were male. Regarding age group, 37.8 percent of the respondents were in the range of 20-29; 39.8 percent, 30-39; 17.7 percent, 40-49; 4.4 percent, 50-59; and 0.4 percent, 60-69. Also, 50.2 percent (125) of the survey respondents were unmarried persons and the others were the married.

### 4.2. Factor analysis

To examine the factorial validity and the consistency of the scale developed, this study conducted factor analysis and reliability test by using Cronbach's alpha. From the result of factor analysis, which were rotated by Varimax and extracted by Principal Component Analysis(PCA), this study adopted the factors which had eigenvalue greater than 1, and the scale items which had factor loading and communality higher than 0.5 respectively.

The criteria was to satisfy the requirements of convergent and discriminant validity. Finally, 1 (from transaction safety) out of 40 scale items which did not meet the above conditions were eliminated in the process of the analysis, and eight factors (five independent variables, one dependent variable, and two moderating variables) were extracted. The results of reliability tests for the extracted eight factors showed that the coefficient alphas of the factors were all above 0.7, which is considered to be moderate in studies of social sciences.

Table 3 presents the result of factor analysis of independent variables regarding OTA service quality. Five factors were generated and accounted for 70.163 percent of the total explained variance. And five items converged on three out of the five factors (information, customer support, customer relationship management) respectively, while four items converged on a factor, price, and six items did on a factor, convenience. Meanwhile, as the results of Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity, which assesses the factorability of the scales, this study obtained a sampling adequacy measure of 0.929 and sphericity test value of 4417.222 with an associated significant level of 0.000. The given set of data is adequate for factor analysis with the empirical evidence like the high value obtained for sampling adequacy and the significant level of the test of sphericity.

Table 4 shows the result of factor analysis of moderating variables regarding transaction safety on OTA website and reputation of OTA. The two factors were extracted and accounted for 68.8 percent of the total explained variance. Four items converged on transaction safety and three items did on reputation. The research verified that the given set of data is appropriate for factor analysis in accordance with the results of KMO measure of sampling adequacy(0.848) and Bartlett's test of sphericity (approximate chi-square value is 897.702, significant level is 0.000).

Finally, the results of factor analysis of dependent variable regarding word-of-mouth intention of users are summarized in Table 5. One factor was extracted and three items converged on it. In accordance with the results of KMO measure of sampling adequacy (0.723) and Bartlett's test of sphericity (approximate chi-square value is 346.541,

significant level is 0.000), this study also confirmed that the given set of data is proper for factor analysis.

**Table 3:** Factor Analysis of Independent Variables

Factors and Items	Factor Loading	Eigen Value	Variance	Alpha
<b>Information</b>	.773			
The OTA provides various product information	.760			
The OTA provides sufficient information	.688	11.816	47.265	.825
The OTA provides useful information for making purchasing decisions	.653			
The OTA provides reliable product information	.523			
Product information of the OTA can be confirmed by photos and video clips on its website				
<b>Price</b>	.788			
The OTA provides great products at good prices	.755			
Product prices provided by the OTA are generally reasonable	.754	1.968	7.872	.756
The OTA's product price are cheaper than the direct buying one from suppliers like airline, hotel, etc.	.641			
Overall cost can be reduced by using the OTA				
<b>Customer relationship management</b>	.842			
The OTA provides different services program according to membership level	.814			
The OTA offers discount benefit to the long term members	.712	1.371	5.483	.786
I use the OTA to get financial benefits	.704			
The OTA offers special services to repeated buying members	.588			
The OTA offers membership program				
<b>Customer support</b>	.810			
The OTA operates customer service center	.764			
The OTA handles customer inquiries and complaints	.724	1.239	4.957	.801
The OTA operates 'Q & A' and 'notice board' on its website	.706			
Customers can post complaints on the OTA website after buying its product	.537			
Customers can share information through consumer views posted on the OTA website				
<b>Convenience</b>	.735			
Procedure of membership registration is easy on the OTA website	.648			
Payment procedure on the OTA website is simple	.590	1.146	4.585	.739
Product buying(booking) procedure is convenient on the OTA website	.585			
Information search is convenient on the OTA website	.559			
Product search is convenient on the OTA website	.552			
Procedure of refund, reservation change and cancel are simple on the OTA website				
Total Percent of Variance Explained = 70.163%, Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.929, Bartlett Test of Sphericity (Approx. Chi-Square = 4417.222, Sig. = 0.000)				

**Table 4:** Factor Analysis of Moderating Variables

Factor and Items	Factor Loading	Eigen Value	Variance	Alpha
<b>Transaction safety</b>	.825			
The OTA website checks customer ID for security	.788	3.534	52.893	.803
The OTA website has safe security system	.763			
The OTA's e-commerce system for online transactions is safe				
<b>Reputation</b>	.854			
The OTA is known as reliable one	.845	1.023	15.964	.745
The reputation of the OTA is quite good	.684			
The OTA are drawing customer's attention				
Total Percent of Variance Explained = 68.857%, Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.848, Bartlett Test of Sphericity (Approx. Chi-Square = 897.702, Sig. = 0.000)				

**Table 5:** Factor Analysis of Dependent Variable

Factors and Items	Factor Loading	Eigen Value	Variance	Alpha
<b>Word-of-mouth intention</b>	.900			
I have an intention to recommend the OTA to other person	.897	2.339	77.964	.872
I will positively recommend the OTA to the people around me	.851			
I will positively tell the people around me about OTA				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.723 Bartlett Test of Sphericity (Approx. Chi-Square = 346.541, Sig. = 0.000)				

### 4.3. Regression analysis

The first hypothesis of the research was to assess the impacts of OTA service quality (information, convenience, price, customer support, and customer relationship management) on the word-of-mouth intention of users. To examine the hypothesis, simultaneous multiple regression analysis was conducted. The five factors, OTA service quality, as the independent variables and the word-of-mouth intention of users as the dependent variable were put into the regression equation. The results of the analysis are summarized in Table 6 below. According to the evaluation result of overall model fit for regression equation, it is estimated by F statistics, the regression model was

statistically significant at  $p < 0.001$ . In addition, the regression equation explained 29.9 percent of the variance of the dependent variable ( $F = 12.037, p < 0.001$ ). Regarding the effect relationship between variables, two independent variables, ‘convenience’ and ‘price’ had positively significant relationships with the dependent variable (‘price’ was statistically significant at  $p < 0.05$  and ‘convenience’ was significant at  $p < 0.01$ ). The convenience was the most significant independent one with the biggest beta coefficient (0.272), followed by price (0.217). According to the result of the analysis, the two sub-hypotheses, H1b and H1c, were supported. Hypothesis 1 of the study therefore, was partially supported.

**Table 6:** The impact of OTA service quality on word-of-mouth intention of users

Classification	Standardized Coefficients beta	t	Sig.
Constant			
Information	-0.009	-0.097	0.923
Convenience	0.272	2.873	<b>0.004**</b>
Price	0.217	2.504	<b>0.013*</b>
Customer support	0.034	0.403	0.688
Customer relationship management	-0.040	-0.534	0.594
Notes: Dependent variable: Intention of sharing information ( $R^2 = 0.299$ Adjusted $R^2 = 0.282$ $F = 12.037$ Sig. = 0.000)			

\*  $P < 0.05$  \*\*  $P < 0.01$

Hypothesis 2 and 3 were to verify moderating effects of both ‘transaction safety’ and ‘reputation’ on the influential relationship between OTA service quality (information, convenience, price, customer support, and customer relationship management) and the word-of-mouth intention of users. In order to confirm the effects, hierarchical multiple regression analyses were conducted. First of all, based on the findings of the above simultaneous regression analysis where the ‘information’, ‘customer support’, and ‘customer relationship management’ were not significant, the six sub-hypotheses, H2a, H2d, H2e and H3a, H3d, H3e were not supported. To examine H2b, the researchers inputted the independent variable, ‘convenience’, into the regression equation with the dependent variable, the word-of-mouth intention of users, as Step 1. Then we inputted the moderating variable, ‘transaction safety’ into the equation as Step 2, and lastly, as Step 3, inputted the ‘interactive

item of convenience and transaction safety’ into it. The result of the analysis showed that at the final step, the amount of  $R^2$  increased ( $\Delta R^2 = 0.017$ ), and the interactive item of convenience and transaction safety (convenience x transaction safety) was statistically significant at  $p < 0.05$ . The sub-hypothesis H2b was accordingly supported. For the verification of H2c, ‘price’, ‘transaction safety’, and their interactive item (price x transaction safety) were inputted into regression equation with the word-of-mouth intention of users in sequence. As the result, the amount of  $R^2$  increased ( $\Delta R^2 = 0.014$ ), and the interactive item of price and transaction safety was statistically significant at  $p < 0.05$  at the final step. Therefore, the sub-hypothesis H2c was supported. Finally, hypothesis 2 of the research was partially supported. Table 7 presents the results of the analyse.

**Table 7:** Moderating effects of transaction safety on the effect relationship between OTA service quality (convenience and price) and the word-of-mouth intention of users

Independent Variable	Step	Dependent Variable: word-of-mouth Intention of users					
		Insert Order	$\beta$	R <sup>2</sup>	$\Delta R^2$	F	Sig.
Convenience	1	Convenience	0.290	0.084	0.084	22.705	0.000
	2	Convenience Transaction safety	0.196 0.379	0.219	0.135	34.447	0.000
	3	Convenience Transaction safety Convenience x Transaction safety	-0.420 -0.344 1068	0.236	<b>0.017</b>	25.168	<b>0.021*</b>
Price	1	Price	0.263	0.069	0.069	18.411	0.000
	2	price Transaction safety	0.186 0.391	0.216	0.147	33.937	0.000
	3	price Transaction safety price x Transaction safety	-0.339 -0.262 0.922	0.230	<b>0.014</b>	24.368	<b>0.039*</b>

\* P<0.05 \*\* P<0.01

To verify H3b and H3c, the researchers performed hierarchical multiple regression analysis in the same way as the above analyses for H2b and H2c. And got the results like at Step 3 of H3b case,

even though the amount of R2 increased very slightly (0.002), the interactive item was insignificant at p < 0.05, while in case of H3c, no increase of R2 was made at the stage. Therefore, Hypothesis 3 of the study was not supported (refer to Table 8).

**Table 8:** Moderating effects of reputation on the effect relationship between OTA service quality (convenience and price) and the word-of-mouth intention of users

Independent Variable	Step	Dependent Variable: word-of-mouth Intention of users					
		Insert Order	$\beta$	R <sup>2</sup>	$\Delta R^2$	F	Sig.
Convenience	1	Convenience	0.290	0.084	0.084	22.705	0.000
	2	Convenience Reputation	0.164 0.435	0.257	0.173	42.567	0.000
	3	Convenience Reputation Convenience x Reputation	-0.108 0.189 0.419	0.259	0.002	28.590	0.393
Price	1	Price	0.263	0.069	0.069	18.411	0.000
	2	Price Reputation	0.119 0.443	0.245	0.176	39.955	0.000
	3	Price Reputation Price x Reputation	0.119 0.444 0.000	0.245	0.000	26.528	1.000

\* P<0.05 \*\* P<0.01

### 5. Conclusions

This paper analyzed the relationship and degree of relationship between online travel agency (OTA) service quality and the anecdotal intention targeting the subjects who used OTA services, and verified the moderating effects of ‘transaction safety’ and ‘reputation’ each on the process. The findings would have important implications not just only for OTA but also for tourism-related enterprises and service providers. The major findings of the study are as follows:

First, the two factors of OTA service quality (convenience and price) had positive effects on the

anecdotal intention of users, and convenience had the most significant impact. These results partially support findings of the previous studies that verified the relationships among website, travel agency, and tour-information service quality and users’ behavior intention (Mcknight et al., 2002; Hor, 2014; Lee, 2018).

Next, this research also verified the moderating effects of the transaction safety and the reputation on the effect relationships between above two factors, convenience and price, and the anecdotal intention of users.

The results showed that some statistically significant differences among the effect degrees of the two independent variables on the dependent variable do exist



according to the safety level of transaction on OTA website, which means that the variable, transaction safety, has moderating effects on the above relationships. The moderating variable, reputation, however, didn't have any effect on the relationships differently from the case of transaction safety.

And the results showed that there exist some statistically significant differences among the effect degrees of the two independent variables on the dependent variable according to the safety level of transaction on OTA website, which means that the variable, transaction safety, has moderating effects on the above relationships.

Based on the findings of the study, this paper offers the following practical suggestions to OTA and tourism-related enterprises and service providers.

Firstly, price competitiveness was a major factor in service quality when customers use OTA. Accordingly, it is necessary to explore reduction measures for distribution costs based on prices. In order to meet such needs, OTA must ensure price competitiveness through promotions and design systems such as recommendation system for high-end products to attract customers.

Secondly, convenience emerged as another factor in improving word-of-mouth intention of OTA customers. Services based on devices such as laptops, tablet PCs, and mobile devices need to be regularly improved through big data analysis. For example, there is a growing need to deploy a user interface that focuses on quick-response actions that may arise due to the untact services, immediate accessibility, and ease in membership registration, purchase and refund procedures. In addition, various tour products and tourism information are crucial to enhance convenience for product selection. In turn, users of online travel agencies manage their reviews since users value the number of purchases or review information of other users.

Finally, transaction safety transpired as an adjustment variable in the relationship between service quality and word-of-mouth intention of OTA. Therefore, it is important to ensure stability of the platform itself. Confidence in the system is imperative due to the heightened sensitivity over sharing personal information during online transactions. In turn, OTAs have to select valid system providers to ensure customer confidence in online transactions and conduct periodic system inspections. Broadly, transaction safety and stability would be guaranteed through public-private partnership in development of systemic regulations and programs that ensure customers to purchase goods more safely online.

This study also presents certain intellectual implications.

This study extracted five measurable components (information, convenience, price, customer service, customer relationship management) that dictate service quality in Online Travel Agencies, building upon

comprehensive analyses presented and verified in the previous studies. Such components were reassessed and recomposed based on the nature of previous factors in service quality and that of in Online Travel Agencies. As a result, such measurement scale may offer fundamental materials to formulate feasible marketing strategies in various forms.

Despite the implications above, this study has shown its limits; hence, this study proposes the following for research hereafter.

Firstly, the response target of this study showed limitations in the lack of sample diversity in nationality. Because of the nature of online use, OTA does not limit its users based on nationality. Therefore, this study proposes that samples of various nationalities be obtained in subsequent studies.

Next, while this study did succeed in verifying transaction stability and effects of reputation adjustment within the relationship between OTA service quality and word-of-mouth intention, this study showed some limitations in answering the question of differences according to OTAs business type. OTA focuses in specific businesses such as aviation, accommodation, tour & ticket, which suggests that its users' intentions would reflect such variation as well.

Finally, this study sought to add depth to the studies of traditional word-of-mouth intentions but also on future studies of online word-of-mouth intentions, building on Kang (2018) who suggests that customers actively search and obtain online information and their willingness to transmit information greatly increases in online space.

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