Exploring the Importance of Tour Guides as the Role of Travel Service Couriers: An Empirical Study on Chinese Tourists Visiting Taiwan

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China is the main force in Taiwan's tourism economy. Therefore, this research attempt uses the Tour Guide Professional Competency to explain how service quality affects tourist loyalty. Methods: Quota Sampling used to distribute surveys; A total of 374 surveys data were collected. Data obtained was analyzed by Descriptive Statistics, Confirmatory Factor Analysis and Structural Equation Modeling. Results: 1. The overall model fits well. 2. Tourism Service Quality significant had positive influence on Tour Guide Professional Competency, as well as a significant and positive direct influence on Tourist Loyalty; Tour Guide Professional Competency had significant and positive effect on tourist loyalty. Conclusions: 1. The competence of professional tour guides has an important mediation effect between tourism service quality and tourist loyalty. 2. China tourists have the lowest awareness of “meal” in regard to tourism service quality. According to the results of this study, practical strategies and recommendations are proposed.

Keywords: Tour guide; tourism; service quality; Loyalty; professional competence; Chinese tourist groups

Introduction

According to the United Nations World Tourism Organization (UNWTO), the number of international tourists reached 598 million in the first half of 2017. Taleb Rifai, the Secretary-General of UNWTO said that China has become the world's largest tourist spending country. In 2016, China’s total spending on outbound travel was 261 billion U.S. dollars, accounting for 21% of total global tourist spending. Today, according to the latest report of UNWTO,
China’s outbound travel consumption accounted for more than one-fifth of the total tourist spending worldwide.

Taiwan, officially the Republic of China (ROC), is a state in East Asia. Its neighbors include the People's Republic of China (PRC) to the west, Japan to the northeast, and the Philippines to the south (Wikipedia, Jan 2, 2018). The countries around Taiwan have become the main targets of Taiwan's tourism industry, especially Chinese tourists, the country with the world’s largest population. In 2016, the number of foreign tourists in Taiwan hit a record high. There were 3.51 million Chinese tourists visiting Taiwan, which is one-third of all tourists visiting Taiwan in 2016. In other words, Chinese visitors account for the highest number of foreign tourists. However, compared with the number of tourists to Taiwan in 2015 (4.18 million), a sharp decrease of 670,000 was recorded, a decrease of 16.1% (Directorate-General of Budget, Accounting, and Statistics, 2018). The number of Chinese tourists visiting Taiwan far exceeds other countries and has become the largest source of tourists to Taiwan. Chinese tourists have a huge impact on Taiwan's tourism industry.

The tourism market has strong resilience and flexibility. The tourism industry helps to revive the economy; the more tourists and the longer they stay in the country, the greater the economic benefit. China’s people have high willingness to travel to Taiwan and they have become a major factor in Taiwan’s travel industry. As market competition intensifies, market-related issues for Chinese tourists visiting Taiwan have gradually emerged. Tourism in Taiwan remains a low-quality service market with fierce price competition, where many problems hinder its development. The root cause “stiff price competition” must be thoroughly solved to bring the price back to a rational level. Although the Taiwan Tourism Bureau set the policy to a certain quality of travel in Taiwan, in the case of asymmetric messages, the rights of China tourists will continue to be undermined. To maintain the quality of travel, ROC’s Department of the Interior encourages the travel industry to plan high-quality travel by quota control. The government also revises the “Permits for Chinese People to Taiwan for Sightseeing Activities” to enhance the travel quality in Taiwan. Therefore, the first goal for this study is to explore how Chinese tourists feel about the quality of travel services.

Service quality is a guarantee of customer satisfaction (Mill, 1986; Bildirici, 2013). In the travel industry, the facilities and services are important. Good facilities and services enhance the tourists' understanding of the quality of tourism. Good service quality creates a high degree of satisfaction, resulting in more tourists. Service quality means delivering continuous, friendly and efficient service to customers (Shetty & Ross, 1985). The second aim for this study is to explore the impact of travel service quality on tourist loyalty.
Relationship marketing is a strategy to maintain and enhance customer relationships (Berry, 1983). Sightseeing is a comprehensive business. If the travel industry is the core of the tourism business, then tour guides are the backbone of the hospitality industry and the most crucial staff members in tourism reception. Travel is people-centered; serving people is the main target. “People” are also the “assets”. This means the relationship marketing is important for tourism. A sound management system and a high-quality service team will enable the company to remain invincible in the industry. Tour guides are the key to success or failure in the development of the travel industry. The quality of tour guides directly affects the quality and overall level of tourism, as well as the country's overall image. Chou (2012) points out that high-quality tour guides help travellers to understand a country and the tourism areas. With satisfactory journey service provided by the tour guides, tourists may feel more relaxed and find the trip enjoyable. The characteristics of the guide will further affect “the willingness of revisit” through the “satisfaction of tourists with the guides” and the “recognition of tourists by the guides”. Therefore, the third reason for this study is to explore whether the tour guides’ professional competency will affect the willingness to re-visit on the part of Chinese tourists.

The key for the tourism industry to succeed is the competency and professionalism of tour guides as well as their knowledge, service attitude and problem-solving experience. Wu and Zhang (2011) reported on Hong Kong tour guides insulting travellers, forcing visitors to shop and other actions tarnishing the image of the tour guides. Although there hasn’t been any related case in Taiwan, preventive action must be taken. Therefore, the purpose of this study includes investigating the relationships among tourism service quality, tour guide professional competence, and tourist loyalty, as well as exploring the intermediary effect of tour guide professional competence in this research model.

**Literature Review**

**Service quality**

Service quality is based on perception; it is generally a positive assessment that is reflected by customers comparing the actual experience with previous expectations of the product or service (Murphy et al., 2000). The study of Parasuraman et al., (1985) defined service quality as the gap between customers’ expectation of service with their perception after service. When the perceived service level is lower than the expected service level, it means that the service quality is low; however, some scholars believe that service quality is subjective cognitive consciousness. Through the service process, customers sense the employees’ intimate feelings. Therefore, the service quality of the employees will influence the actual perception of the consumers. Quality of service not only includes the end results, but also the way the service is provided (Sasser et al., 1978). The service industry is intangible,
indivisible and perishable, all of which will affect consumers' evaluation of service quality. Therefore, it is difficult for consumers to describe the service quality in detail; it can only be described by some adjectives (Crosby, 1979). Parasuraman et al., (1985) refer to the following characteristics of service features to measure the quality of consumer services: reliability, responsiveness, competence, access, courtesy, communication, credibility, security, understanding, and tangibility.

Due to the different properties of the industry, the service methods differ. The tourism industry has also developed tourism service features suitable for tourism. It is difficult to confirm the quality of tourism services (Zeithaml, 1988). Tourism products are usually produced and consumed at the same time, especially the interaction between passengers or between passengers and service personnel. All of these factors have a significant impact on the quality of tourism products. Wang (2007) posits that the tourism service quality represents the service infrastructure and the destination environment of the tourists. As Hsiao (2016) points out, the quality of tourism services is the sum total of hardware facilities and software services, including travel, transportation, accommodation, meals, shopping, etc.

**Loyalty**

Reynolds et al., (1974) explain loyalty as consumers’ desire to repeat purchases within a certain period of time. Berry et al., (1994) state that customer loyalty is the intention of consumers to buy again and show willingness to convey positive word-of-mouth messages to others. However Dick and Basu (1994) have a different opinion; they believe that customer loyalty can be regarded as a personal attitude and repurchase behavior. Attitude loyalty is the psychological aspect that favors the customer, while behavioral loyalty is the actual purchase behavior of the customer (Oliver et al., 1997).

Shen and Hsieh (2003) define tourism loyalty as the recognition of behaviors or attitudes such as tourists' willingness to visit again, make recommendations to friends and relatives in word of mouth propaganda, and emotional preference. Tsaur and Sun (2009); Bosupeng, (2018) define tourism loyalty as willingness to visit the same place again and again. But, what leads the customer loyalty has become an issue worth researching. Most studies describe satisfaction as the most direct factor affecting customer loyalty, and that the factors that affect customer satisfaction include service quality, brand image, perceived value, and relationship quality (Kotler & Scheff, 1997). Some scholars also believe that service quality has the greatest impact on customer loyalty. Lo (2014) also proved that improving customer service quality will effectively increase customer loyalty. Thus, this study aims to explore how service quality impacts customer loyalty, especially in the tourism industry.

Hypothesis 1a: Travel service quality has a positive effect on loyalty.
Tour Guide Professional Competence

According to the Act for the Development of Tourism of Taiwan, the tour guides are the service personnel who receive remuneration to admit or guide foreign tourists who travel to Taiwan. Holloway (1981) sees tour guides as the spokesmen of culture and transmitters of information. From a tourist's point of view, the tour guide can be said to be an explorer, an energetic adviser or leader worthy of the trust of tourists (Cohen, 1985). Weiler and Ham (2002) feel that the tour guide plays a key role in commentary and education. Tour guides enable visitors to reflect on the existing living environment; their role can make the travel of tourists more meaningful; their task is to accompany members of the travel group and to implement the itinerary arranged by the company. The tasks of the tour guide include: transportation, accommodations, meals, scenic spots, and more. Sometimes, they need to do translation or interpretation work when appropriate. The tour guide not only needs to arrange tourist expenses or shopping and also free activities. At the same time, they need pay attention to the safety and health of the members, while safeguarding the image of the company and the country. Professional competence is very important for a tour guide.

Tourism-related studies seldom involve the professionalism of tour guides. Through the relationship between the professional competence of tourism guides and the globalization of enterprises, the tour guides have an important position regarding tourism professionalism, knowledge of investment and customer satisfaction in various countries. Therefore, the development of professional competence has become a hot topic in the field of human resource development in recent years (Lin, 2001).

"Professional” means long-term training before work to obtain professional knowledge and ability, followed by continuously learning from work, study and development; “competence” refers to the professional knowledge, skills and attitudes needed to successfully achieve their work goals (Mayo & Jarvis, 1981). The core of tourism competition is the quality and quantity of services based on the professional qualities of the tour guides. A professional tour guide can provide high-quality services and travel content to meet the needs of each passenger, and thus enhance the competitiveness of Taiwan tourism industry. Besides the social environment, transportation and other issues that may be encountered, the tour guide must also provide travellers with a safe travel environment, and serve as “mediator” for the passengers in unfamiliar environments (Pearce, 1982).

The quality of tour guide professional services will affect the image and reputation of the travel agency they belong to, as well as the actual experience of tourists. Positive perception will produce a satisfactory perception, thereby the loyalty of tourists will extend the revisiting
or recommendation intention. The professional competence of tour guides has an intermediary relationship between the quality of tourism services and customer loyalty.

Hypothesis 2a: The quality of tourism services has a positive effect on the professional competence of tour guides.
Hypothesis 3a: Tour guide professional competence has a positive effect on loyalty.
Hypothesis 4a: Tour guides professional competence has an intermediate effect between the quality and loyalty of tourism services.

**Figure 1. Location of Taiwan**

![Location of Taiwan](image)

**Research Method and Procedure**

**Research Subjects**

The participants in this study were tourist groups from China to Taiwan. In this study, a Quota Sampling method was used; 10 senior tour guides were provided by the senior managers of 5 well-known travel companies in Taiwan. This study is based on 1. More than 5 years of work experience; 2. In the past 2 years, the average annual delegation was more than 6 times; 3. In the last year, at least 3 China tourist groups were handled. Each company selected 6 representatives, so a total of 30 senior tour guides were asked to hand out and collect questionnaires. The survey distribution time lasted from July 1, 2017 to July 31, 2017. Among a total of 450 questionnaires issued, 374 questionnaires were valid, for an 83.11% effective rate.

**Figure 2. Research architecture diagram.**
Hypothesis 1a: Travel service quality has a positive effect on loyalty.
Hypothesis 2a: The quality of tourism services has a positive effect on the professional competence of tour guides.
Hypothesis 3a: Tour guide professional competence has a positive effect on loyalty.
Hypothesis 4a: Tour guides professional competence has an intermediate effect between the quality and loyalty of tourism services.

Research Tool and Validity Analysis

Firstly, the survey of this study was divided into three aspects: tourist loyalty, tourism service quality, and tour guide professional competency. Each issue was measured using the five-point Likert scale. The Tourism service quality scale referred to the “Highlights of the Travel Industry's Reception of Mainland People to Taiwan for Sightseeing Tours” issued by the Tourism Bureau in 2013. The tour guide professional competency scale mainly referred to the scale of Jarvis (1983), but was revised into a simplified Chinese questionnaire using the translation method and referring to the questionnaire of Hsiao (2016). The Tourist Loyalty scale mainly referred to the scale of Roberts et al., (2003).

According to Anderson and Gerbing (1988), the scales and variables require consistency, stability and fit well in the model. Bollen (1989) introduced the two-step rule for SEM practice. The first step involves checking whether the measurement model is acceptable and whether the number of factors is equal to that proposed by the researcher. If the measurement model is acceptable, in the second step, the causal relationship between latent variables is regarded as the path structure; it is then analyzed to assess whether the model fits well. Therefore, the study used confirmatory factor analysis (CFA) to conduct the test of fitness of each scale and the reliability of the data in this study.
The criteria are as follows: absolute fit measures (RMR <.05, GFI >.80, AGFI >.80), relative fitness measures (NFI >.80, CFI >.90), parsimonious fit measures ($\chi^2$/df >5), factor loading >.50, composite reliability >.60 and average variation extraction (AVE) >.50.

In Tourism Service Quality, the model fit index included: RMR=.03, GFI=.89, AGFI=.85, NFI=.88, CFI=.91 and $\chi^2$/df =4.03; most of the values reached the standard. The factor loading of Tourism service quality was between .56–.88; Composite reliability was .87; and AVE value was .58, indicating that the variables had good reliability and validity.

In Tour Guide Professional Competency, the model fit index included: RMR=.01, GFI=.92, AGFI=.89, NFI=.88, CFI=.91 and $\chi^2$/df =3.03; all the values reached the standard. The factor loading of Tour Guide Professional Competency was between .79–.94; Composite reliability was .90; and AVE value was .74, indicating that the variables had good reliability and validity.

In Tourist Loyalty, the model fit index included: RMR=.00, GFI=.99, AGFI=.97, NFI=.99, CFI=.99 and $\chi^2$/df =2.05; all the values reached the standard. The factor loading of Tourist Loyalty was between .63–.87; Composite reliability was .83; and AVE value was .55, indicating that the variables had good reliability and validity.

<table>
<thead>
<tr>
<th>Variables</th>
<th>RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>CFI</th>
<th>$\chi^2$/df</th>
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<td>.85</td>
<td>.88</td>
<td>.91</td>
<td>4.03</td>
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<td>.88</td>
<td>.91</td>
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<td>.97</td>
<td>.99</td>
<td>.99</td>
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<td>.80</td>
<td>.80</td>
<td>.90</td>
<td>&lt;5.00</td>
</tr>
</tbody>
</table>

RMR=Root mean square residual; GFI=Goodness of fit index; AGFI=Adjusted goodness of fit index; NFI=Normed fit index; CFI=Comparative fit index; df=Degree of freedom.

Table 2: Convergent validity analysis table of tourism service quality

<table>
<thead>
<tr>
<th></th>
<th>No</th>
<th>Factor loading</th>
<th>SMC</th>
<th>S.E.</th>
<th>C.R.</th>
<th>AVE</th>
</tr>
</thead>
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<td></td>
<td>A2</td>
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<tr>
<td>No</td>
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<td>S.E.</td>
<td>C.R.</td>
<td>AVE</td>
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<tr>
<td>B1</td>
<td>.67</td>
<td>.44</td>
<td>.56</td>
<td></td>
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<td>B2</td>
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<td>.51</td>
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<td>.58</td>
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<td>B13</td>
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<td>B14</td>
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<td>B15</td>
<td>.72</td>
<td>.52</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SMC= Squared Multiple Correlations; SE=Standard estimate; CR=Component reliability; AVE=Average variance extracted; A1-A19=Item of tourism service quality.

**Table 3:** Convergent validity analysis table of tour guide professional competency

**Table 4:** Convergent validity analysis table of tourist loyalty

273
Tourist loyalty

<table>
<thead>
<tr>
<th>No</th>
<th>Factor loading</th>
<th>SMC</th>
<th>S.E.</th>
<th>C.R.</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3</td>
<td>.875</td>
<td>.77</td>
<td>.23</td>
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<td>C4</td>
<td>.77</td>
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<td>C6</td>
<td>.63</td>
<td>.40</td>
<td>.60</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Noted: SMC=Squared multiple correlations; SE=Standard estimate; CR=Component reliability; AVE=Average variance extracted; C2-C6=Item of tourist loyalty.

**Discriminant Validity Test**

In addition, this study used discriminant validity to measure different aspects and verify whether there were differences so that the correlation between different aspects should have low relation. This study used the AVE test for measurement. Fornell and Larcker (1981) point out that comparing the squares of the correlation coefficients of all variables with the AVE values when the square is less than AVE means that the variables in this study have good discriminant validity.

**Table 5:** Overall model confident interval discriminant validity test analysis

<table>
<thead>
<tr>
<th></th>
<th>Tourism Service Quality</th>
<th>Tour Guide Professional Competency</th>
<th>Tourist Loyalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism Service Quality</td>
<td>.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tour Guide Professional Competency</td>
<td>.42</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>Tourist Loyalty</td>
<td>.18</td>
<td>.18</td>
<td>.55</td>
</tr>
</tbody>
</table>

**Bold** is AVE (Average variance extracted) value for each variable

**Data Processing**

This study used SPSS version 19.0 and AMOS version 21.0 to analyze the data, and descriptive statistics, confirmatory factor analysis, and structural equation modelling to understand the issues and purpose discussed in this study.

**Results**

**Subject Data Analysis**

In this study, male respondents were slightly more numerous (50.3%); the main age group were 45-54 (27.8%); occupation were mainly professional/specialist (23.3%) and
freelancer/entrepreneur (25.1%); education level mostly university (inclusive above) (42.2%); monthly income was RMB 4,001-RMB 6,000 (27.0%); majority of travel days were 7-8 days (72.2%) and tour fees were around RMB 3,001-RMB 4,500 (27.0%) and RMB 4,501-RMB 6,000 (28.9%).

**Analysis of Current Status on Service Quality, Professional Competence and Loyalty**

In service quality, the average value of each factor is between 3.93 ~ 4.77. Among them, “Transportation” had the highest perception (M=4.77, SD=.38), followed by “Shopping” (M=4.43, SD=.61), “Schedule” (M=4.19, SD=.53), “Accommodation” (M=4.18, SD=.58) and “Meal” (M=3.93, SD=.57).

In regard to tour guide professional competency, the average value of each factor is between 4.55 ~ 4.71. Among them, “Attitude” had the highest perception (M=4.71, SD=.35), followed by “Knowledge” (M=4.62, SD=.37) and “Skill” (M=4.55, SD=.39).

In tourist loyalty, China tourists had their perception in high degree (M=3.85, SD=.62).

**Structural Equation Model Analysis**

According to West et al., (1995), in a normal distribution, the absolute value of the skewness coefficient must be less than 2; the kurtosis coefficient shouldn’t be more than 7. The results of this study showed that the skewness coefficient was between -1.569 to .066, the kurtosis coefficient between -.697 to 1.520, indicating that the sample of this study matched the characteristics of the normal distribution, and were qualified with the normality test.

In the overall model fit analysis, most of the values reached the standard: RMR=.02, GFI=.90, AGFI=.85, NFI=.88, CFI=.90 and χ2/df=4.36, indicating that the overall model fit well; the discussion was then continued.

**Table 6: Model fit indices of Overall Model**

<table>
<thead>
<tr>
<th></th>
<th>RMR</th>
<th>GFI</th>
<th>AGFI</th>
<th>NFI</th>
<th>CFI</th>
<th>χ2/df</th>
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<tr>
<td>Overall Model</td>
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<td>.90</td>
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<td>.80</td>
<td>.80</td>
<td>.80</td>
<td>.90</td>
<td>&lt;5</td>
</tr>
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</table>

RMR=Root mean square residual; GFI=Goodness of fit index; AGFI=Adjusted goodness of fit index; NFI=Normed fit index; CFI=Comparative fit index; df=Degree of freedom.

In order to understand the relevance of Service Quality, Professional Competence, and Tourist Loyalty, this study used SEM to analyze the relevance of the various variables; from
the analysis results potential relationships between research variables could be found. As a result of the analysis, Tourism Service Quality had a significant and positive influence on Tour Guide Professional Competency ($t=8.72$, $p<.05$, $\beta=.65$), and on Tourist Loyalty ($t=2.96$, $p<.05$, $\beta=.26$), while Tour Guide Professional Competency had a significant and positive effect on tourist loyalty ($t=2.94$, $p<.05$, $\beta=.26$).

Figure 3. Path Analysis of Service Quality, Professional Competence, and Tourist Loyalty.

According to the path analysis results, the study found that the “transportation” factor had the lowest effect on tourism service quality, indicating that transportation was not an important factor to Chinese group tourists; although transportation will affect the travel itinerary, but due to the route of the travel being fixed, the transportation factor had low influence. “Knowledge” had the highest effect on tour guide professional competency and was the main factor because tour guides lead Chinese tourist groups to travel around; especially, Taiwan
has rich cultural customs, charming landscape, etc., which mean that the tour guide’s knowledge is an important factor. Finally, in tourist loyalty it was found that question C3 “When external factors have caused an increase in travel expenses to Taiwan, I am still willing to travel to Taiwan” had the highest effect, indicating that Chinese group tourists are willing to travel to Taiwan again even if they have to pay more. From the overall path analysis results, tourism service quality had an influence on both tour guide professional competence and tourist loyalty, with the former having the highest effect; indicate that in viewpoint of Chinese tourists, the highest service quality represents the professionalism of tour guides. Meanwhile, tourism service quality and tour guide professional competence had the same influence on tourist loyalty, indicating their equal importance to Chinese tourists.

Lastly, the study found that tourism service quality has a direct effect \( \beta = .26 \) on tourist loyalty, as well as an indirect effect \( \beta = .17 \) on tourist loyalty, albeit the regression coefficient was low. Therefore, this study used Sobel’s test to measure whether professional competence serves as an intermediary variable in this model. According to Preacher and Hayes (2004), when the \( t \) value is greater than 1.96 in the path coefficient and the estimated standard error in Sobel's t-test, it means that the intermediary effect is significant; in this study, \( t = 2.78 \) \( (p < .05) \), indicating that tour guide professional competence meant that tourism service quality can enhance tourist loyalty, verifying tour guide professional competence as an intermediary variable in this model.

**Theoretical Implications**

In this study, we proposed a well-fitted model of service quality, professional competence and tourist loyalty, thus verifying tour guide professional competence was an intermediary variable in this model. In summary, tour guide professional competence and high tourism service quality can reflect tour guide professionalism in the best way, and directly affect tourist loyalty.

In addition, the “Tourism Service Quality - Tour Guide Professional Competency - Tourist Loyalty” model constructed by this study is supported overall. The relationship between tourism service quality and tourist loyalty in the behavior of Chinese tourists is affected by the mediating effect of Tour Guide Professional Competency, and this effect is significant. The results of this study show that the sensation of Chinese tourists regarding the quality of tourism product/services can directly affect their loyalty (effective value = .26), and indirectly affect loyalty (.17) through the professional services of tour guides, the indirect effect accounts for 39.5% in total effect. Therefore, the quality of the service delivered by tour guide professional competence cannot be ignored. In the future, the construction of professional talents for tour guides should be strengthened.
Practical Implications

This study found that tour guide professional competence affects the perception of tourism service quality and loyalty behavior. ATT, KNO, and SKI are ranked sequentially from high to low. However, from the overall model, it is found that the degree of KNO factors is the most significant in the sense of tour guide professional competence. Therefore, if travel agencies establish the professional competence of their tour guides to enhance customer loyalty, priority should be given to training on communication skills, organizational skills and flexibility to achieve the best benefits.

According to the findings of this study, Chinese tourists have the lowest awareness of “meal” in tourism service quality. It is recommended that travel agents should consider the eating habits of Chinese tourists to improve their sense of service quality. In addition, this study also found that the “skill” in the tour guide professional competency has the lowest awareness, and therefore suggests that travel agencies should focus on enhanced training of tour guides to help raise the value of travel products/services and attract more tourists.

Limitation and Future Research

In recent years, the Chinese market has grown. Chinese people have begun to travel abroad and have driven the economic growth of tourism markets in various countries. Taiwan’s geographic location is close to China, and the number of Chinese tourists arriving in Taiwan has been increasing in recent years. Therefore, this study took Chinese tourists as the subject of investigation and proposes loyalty behavior-related models. However, the customs of Taiwan are close to those of China and the language is the same. The results of this study are not entirely suitable for the behavior of Chinese tourists in different countries. Therefore, the differences in the characteristics of travellers should be considered in future studies by conducting surveys and studies with tourists of different nationalities in order to understand whether the tourists of different nationalities differ in their feelings of tourism service quality, tour guide professional competency and loyalty. In addition, this study used group tourists as the study population; therefore, we suggest investigating foreign independent tourists (FITs) to compare the difference between FIT and group tourists in the future.

Manuscript words: 4410

REFERENCE


Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research, 382-388.*


Tourism Bureau (2013). Retrieved from https://www.taiwan.net.tw/


