



The effect of service quality, tourist satisfaction, place attachment on environmentally responsible behavior in Praiijng traditional village

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Abstract. This study aims to find out and analyze the influence of Service Quality, Tourist Satisfaction, Place Attachment, and Environmentally Responsible Behavior on tourist attractions in Praiijng Traditional Village. Data processing is carried out using quantitative approaches and this type of research is causal. Variables used in this study are service quality, tourist satisfaction, place attachment, and environmentally responsible behavior. Technical analysis of the data used is Structural Equation Modeling (SEM) by using the SPSS 16.0 for Windows and AMOS version 22. This study used samples in the form of responses from respondents who had visited Praiijng Traditional Village with the number of samples used in the study 150 respondents. The results of this study showed the mutual influence between service quality, tourist satisfaction, place attachment, and environmentally responsible behavior.

Keywords: Tourism, service quality, tourist satisfaction, place attachment, ERB

Introduction

Tourism is the first industry in the world in terms of revenue and its impact on the economic growth of countries. Many countries are trying to capitalize on its benefits by creating the right infrastructure. In most countries, tourism is considered an important source of commercial activity, income, employment, and foreign exchange (Haber & Lerner, 1998). Areas that were once unknown to the public have now been exposed to foreign countries. Good tourism will certainly support the growth of an area. Tourism has an advantage since the majority are in the service sector. Realizing the importance of the tourism industry economically, each region tries to create the right marketing strategy to attract tourists to visit. As a result, the tourism industry market is becoming increasingly competitive. More choices of attractive tourist attractions that offer natural beauty, culture, customs, environment, facilities, and infrastructure as well as adequate accommodation can influence the decision of tourists to travel to a place they want to go.

Traditional village tourism is one of the tours that attracts the attention of many visitors because it is considered unique and can not be found in the same features in different places (Zhu et al., 2021). This is one of the factors driving the emergence of a tourist trip (Zhao et al., 2024). The appearance of a traditional village, such as its traditional houses, nature, and the area where the traditional village house is located can arouse curiosity about the customs, traditions, and stories contained in traditional village tourism (Katelieva & Muhar, 2022). Other driving factors, namely because of the place, the local environment, and the sense of satisfaction of other customers who are conveyed to other tourists to come visit (Zaitul et al., 2022).

Traditional tourism villages in Indonesia play a pivotal role in safeguarding local culture, knowledge, and plant diversity, while simultaneously providing economic opportunities through sustainable tourism (Hermawan & Suryono, 2023). These villages feature a diverse array of Indonesia-centric attractions, including traditional architecture, cultural performances, and scenic natural landscapes (Putra et al., 2021). Despite their potential, the development of such villages is hindered by budget limitations and infrastructure challenges, which underscores the importance of collaboration between village administrations and traditional institutions (Koerner et al., 2024). Moreover, community acceptance and resilience are critical to successful tourism ventures, as some communities view tourism predominantly through an economic lens whereas others uphold a more traditional host-guest paradigm (Khater & Faik, 2024). Consequently, Indonesia has positioned its cultural heritage—encompassing “Culture & Beliefs,” “Arts & Craft,” and “Culinaries”—as a central draw on its official tourism promotion platform, Wonderful Indonesia (Wonderful Indonesia, 2024).

Notably, the island of Sumba in East Nusa Tenggara Province has become one of the country’s favored tourism destinations, attracting over 25,000 annual visitors, with domestic travelers currently still comprising the majority (Mahinda Arkyasa, 2023). Sumba has a million charms of tourist destinations that must be visited. Famous for its super clear rivers and beaches, Sumba also has cultural tourism, Praijing Traditional Village. It is located in Tebara Village, Waikabubak District, West Sumba Regency, East Nusa Tenggara (NTT) Province. Currently, in the village, there are 38 traditional houses typical of Sumba. Praijing traditional village once experienced a fire, leaving only 38 traditional houses still standing in Praijing Village. Even though it had experienced a fire in 2000, its charm was not faded by the red rooster, as evidenced by the fact that until now it is still visited by domestic and foreign tourists. When in Praijing Traditional Village, tourists can see the daily lives of residents, which tourists cannot get in any other village while learning about their culture and customs, looking at the stretching rice fields, and seeing the city of Waikabubak, the capital of West Sumba Regency from a height (backpacker Jakarta, 2018).

Culture-based tourism such as Praijing Traditional Village in Sumba not only offers aesthetic and educational experiences for tourists but also has the potential to increase environmental awareness through interaction with local cultures that respect nature. This village is an example of how traditional values can be aligned with environmental conservation efforts. In the context of tourism, environmentally responsible behavior (ERB) is an important aspect of supporting the sustainability of tourist attractions. Therefore, it is important to understand how factors such as tourist satisfaction and place attachment can influence ERB, especially in culture-based tourism sites such as Praijing Traditional Village. This understanding is important for current discussion in, not only enhancing the performance of traditional tourism, but also enhances its sustainability.

Previous environmentally responsible behavior (ERB) literature suggests place attachment (Ramkissoon et al., 2013; Lee, 2011) and satisfaction (Lee & Moscarbo, 2005) predict ERB. However, the relationship between satisfaction, place attachment, and ERB has not been tested in the field of interpretation. Since interpretation is indicated by tourist-influenced behavior, there may be a causal relationship between the 4 variables. In addition, although some researchers suggest that interpretation quality could enable tourists to exhibit ERB Powell and Ham (2008), few quantitative studies have been conducted to examine the results. Most of the existing studies were conducted in community-based Lee et al. (2013b) and nature-based tourist destinations (Kim, 2011; Lee, 2009).

This research is an extension of research by Cheng, T. E., Wang, J., Cao, M. M., Zhang, D. J., and Bai, H. X. (2018) which researched tourists in Xi'an, China who visited historical sites and tourist attractions. This study discusses how tourists who come to China to visit existing cultural heritage sites as tourist destinations are influenced by interpretive service quality, tourist satisfaction, and place

attachment to environmentally responsible behavior. The similarity of this research with Cheng et al.'s research (2018) is that both examine the factors that influence service, satisfaction, place, and environmentally responsible behavior in historical sites. The results of Cheng et al.'s research (2018) show the importance of interpretive service quality in facilitating place attachment and ERB among tourists. This study is particularly interested in viewing how these variables are also exemplified in Southeast Asian destinations, particularly in a destination with a wide range of cultural and scenic products available such as Praijing Village.

Literature review

Service Quality

Service quality is a measurement of the expected excellence of service quality associated with price development or the level of comparison of consumer service quality expectations with company performance perceived by consumers to control price development. According to Zeithaml (1990: 19), Service Quality is a mismatch between consumer expectations or desires and consumer perceptions. Service quality has many different characteristics so that service quality is difficult to define or measure. Recent studies have examined service quality in traditional and village tourism contexts (Lai et al., 2018). Research in Vietnam's Da Nang city found that tourists highly value service quality in traditional craft villages but perceive performance as lacking, suggesting areas for improvement (Nguyen Phu & Nguyen Thi Thu, 2022). A study in North Toraja, Indonesia, revealed a significant influence of tourist perceptions on service quality in the cultural Toraja sites (Tandipayuk & Kakeeto-Aelen, 2022). These studies highlight the importance of service quality in enhancing visitor satisfaction and identify areas for improvement in village and traditional tourism settings.

Tourist Satisfaction

According to Walker et al. (2001: 35) tourist satisfaction can be defined as a situation where customer needs, wants, and expectations can be met through consumed products. In general, customer satisfaction can be said to be a person's feeling of pleasure or disappointment from the comparison between the product purchased in accordance or not with their expectations. Woodruff, Cadotte, and Jenkins (1983) suggest that satisfaction results from confirmation and disconfirmation of consumer experiences related to the product. Westbrook's (1987) view of satisfaction not only involves post-purchase cognition but also sees individual satisfaction as a conscious experience or subjective feeling. As Mano and Oliver (1993) point out, satisfaction results from cognition and affection towards a product, and also includes emotional states. In the context of travel, the measurement of satisfaction is based on tourists' expectations that precede, and the actual formation of positive feelings for the destination during or after the travel consumption process (Bosque & Martin, 2008). Similarly, Tain-Cole and Cromption (2003) describe satisfaction as a psychological outcome that is affective and results from a positive travel experience. According to Davis, Le, and Coy (2011), when 'satisfaction with the environment' is positive, it can influence patron ecological behavior.

Place attachment

Place attachment is the effective and emotional bond that people develop with places Low and Altman (1992), and the term 'place attachment' highlights the positive bond between them (Trentelman, 2009). Researchers in various fields view it as a multi-dimensional construct including place dependence, place identity, place social ties Ramkissoon et al., 2013 and place effect (Hinds & Sparks, 2008). Among these dimensions, the most widely accepted and most studied is the first dimension. Place attachment emphasizes a functional attachment to a place because it can provide the resources or facilities necessary

to meet the activity-specific needs for residents (Williams & Roggenbuck, 1989). Place identity is a reflection of the symbolic importance of a place to a person (Williams & Vaske, 2003). In tourism, researchers have studied the factors that predict place attachment and its effects. According to previous studies, some factors such as service quality Alexandris et al. (2006), attractiveness of a destination Xu and Zhang (2016), environmental sensitivity Cheng and Wu (2013), activity involvement Xu and Zhang (2016), satisfaction with service quality Su et al. (2011), and others.

Environmentally responsible behavior

Environmentally responsible behavior is a characteristic of individuals who are knowledgeable and concerned about the environment and therefore will engage in behaviors that will avoid environmental damage (Iwata, 2001; Mobley, Vagias, & DeWard, 2010). In a meta-analysis, Hines, Hungerford, and Tomera (1987) found that environmentally responsible behavior was related to knowledge of the problem, action strategies, locus of control, attitudes, verbal commitment, and sense of responsibility. Similarly, Cottrell and Graefe (1997) believe that environmental concern, commitment, and ecological knowledge determine environmentally responsible personal behavior. According to Cottrell and Graefe (1997), environmentally responsible behavior towards the environment is reflected in an individual's environmental concern, commitment, and ecological knowledge. Iwata (2001) mentioned that environmentally responsible behavior can be expressed through various types of behavior, such as waste recycling and energy management. Environmentally responsible behavior can be classified into environmental activism, inactive behavior in the public sphere, and environmental-private sphere (Stern, 2000).

Based on the existing theoretical concepts, a working hypothesis can be formulated, namely (see Figure 1):

- H1. Service quality will have a significant effect on place attachment
- H2. Service quality will have a significant effect on environmentally responsible behavior
- H3. Service quality will have a significant effect on tourist satisfaction
- H4. Tourist satisfaction will have a significant effect on place attachment
- H5. Tourist satisfaction will have a significant effect on environmentally responsible behavior
- H6. Place attachment will have a significant effect on environmentally responsible behavior

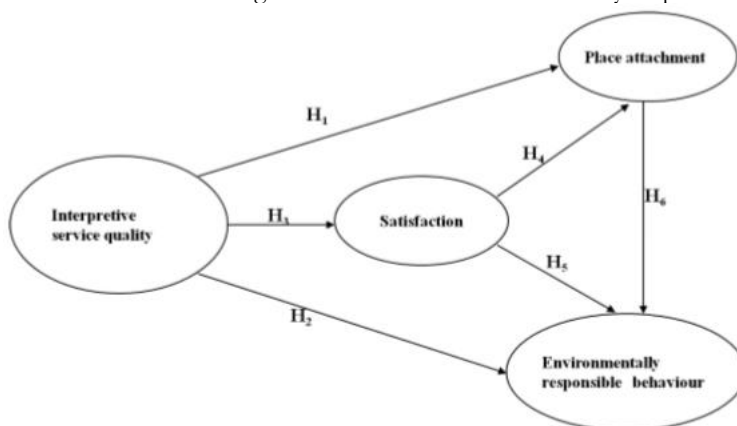


Figure 1. Research Model (Source Cheng et al., 2018)

Research Methodology

This research uses a quantitative approach. The quantitative approach is used because the data used in this study will be processed using statistics. The type of research used is a type of causal research where the research objective is to see the cause-and-effect influence between service quality, tourist satisfaction, place attachment, and environmentally responsible behavior. The data sources used in this study are primary and secondary data. In this study, secondary data were obtained through the website and reference books cited. The target population in this study were visitors who had visited the Praiijng Traditional Village. The population characteristics of this study are male or female respondents, who have visited the Praiijng Traditional Village, who live on Sumba Island or have visited frequently who are at least 16 years old, and have a minimum high school education.

The sampling technique used is non-probability sampling because the opportunities of population members are not identified and each member of the population does not have the same opportunity to be selected as a respondent (Sekaran and Bougie, 2010: 276). In addition, the population under study was not identified. The type of sampling in this study is convenience sampling, which is sampling based on the availability of elements and the ease of obtaining them.

The sampling technique used is by distributing questionnaires online. Data collection by distributing questionnaires is expected to obtain more accurate data. According to Hair et al., (2010: 667) market testing allows the number of respondents to be 100 people to 150 people.

Findings

Validity and Reliability Test

Various measures were employed to assess the instrument’s validity and reliability—namely, item-total correlation, Cronbach’s alpha, Average Variance Extracted (AVE), and construct reliability—using SPSS 16.0 for Windows (Hair et al., 2022). The results indicate that each item’s correlation with the total score was significant at $p < 0.05$, confirming the validity of all indicators. In addition, the Cronbach’s alpha values exceeded the commonly accepted threshold of 0.7, thus affirming that the questionnaire meets the essential standards of validity and reliability.

With regard to validity, an AVE of at least 0.50 is recommended (Verhoef et al., 2002; Hair et al., 2015). Although an AVE value below 0.50 can still be deemed acceptable, it suggests that the validity level is only average. Once validity is established, a reliability test is conducted to ensure the consistency of measurement outcomes when repeated. In this context, construct reliability (≥ 0.70) is commonly used; however, values ranging from 0.60 to 0.70 may also be considered acceptable, provided that the validity of each variable indicator within the research model has been satisfied (Hair et al., 2010). Finally, an assessment of Goodness of Fit demonstrated both good fit and marginal fit across the relevant criteria, as summarized in Table 1.

Table 1. Measurement Model Fit Test Results

Goodness of fit	Criteria	Model results	Description
Cmin/DF	≤ 3.00	1.072	Good Fit
RMSEA	≤ 0.08	0.022	Good Fit
GFI	≥ 0.90	0.822	Marginal Fit
TLI	≥ 0.90	0.988	GoodFit
CFI	≥ 0.90	0.991	GoodFit

Structural Model

After the result has been deemed as valid and reliable, an assessment on the structural model could be carried out. Hypothesis testing is done by looking at the Critical Ratio value. The CR value is found in the regression weights output. In this study, it will be supported if the effect of a construct on other constructs results in a Critical Ratio value of $\geq \pm 1.96$ (with a significance level of 5%). The estimated value at the output of standardized regression weights is used to determine the direction and strength of the relationship if the hypothesized effect is proven significant. The magnitude of the influence between variables is done by looking at the estimated value, indicating that the influence between one variable and another is getting bigger.

Table 2. Summary of Hypothesis Testing Results

Hypothesis	Variables	Std.	S.E.	C.R.	P	Ket
H1 (+)	Service Quality → Tourist Satisfaction	0.957	0.922	13.061	0.000	Supported
H2 (-)	Service Quality → Place Attachment	0.265	0.362	1.920	0.055	Not Supported
H3 (+)	Tourist Satisfaction → Place Attachment	0.303	0.430	2.154	0.031	Supported
H4 (-)	Service Quality → Environmentally Responsible Behavior	0.281	0.354	1.718	0.086	Not Supported
H5 (-)	Place Attachment → Environmentally Responsible Behavior	0.102	0.094	0.849	0.396	Not Supported
H6 (-)	Tourist Satisfaction → Environmentally Responsible Behavior	0.157	0.205	0.882	0.378	Not Supported

In this study, a hypothesis was considered supported if the effect of one construct on another yielded a Critical Ratio (C.R) value exceeding ± 1.96 at the 5% significance level. As shown in Table 2, H1 (Service Quality → Tourist Satisfaction) met this criterion (C.R = 13.061, $p = 0.000$), indicating a positive and significant impact. Similarly, H3 (Tourist Satisfaction → Place Attachment) was supported (C.R = 2.154, $p = 0.031$). However, H2 (Service Quality → Place Attachment) did not reach the significance threshold (C.R = 1.920, $p = 0.055$). Furthermore, H4, H5, and H6, each relating to Environmentally Responsible Behavior, were not supported as all C.R values fell below ± 1.96 ($p > 0.05$).

Discussions

The findings of this study confirm two hypotheses: Service Quality → Tourist Satisfaction (H1) and Tourist Satisfaction → Place Attachment (H3). In line with Cheng et al. (2018), an improvement in service quality leads to increased visitor satisfaction, which in turn strengthens their sense of attachment to the destination. These results highlight the importance of providing high-quality services—such as

efficient visitor assistance, reliable facilities, always ready-to-assist services, and engaging activities—to elevate the emotional and cognitive connection that tourists form with Praiijng Traditional Village. In particular, this study encourages detailed tailoring toward five dimensions of service quality—tangibility, reliability, responsiveness, assurance, and empathy—in order to enhance tourist satisfaction on traditional village tourist establishments and, in turn, higher attachment toward those destinations.

On the other hand, the study reveals that Service Quality does not significantly affect Place Attachment (H2) or Environmentally Responsible Behavior (H4). While service quality can foster visitor satisfaction, it does not necessarily translate into an emotional bond with the destination or influence pro-environmental attitudes and actions. The variety of tourist motivations and perceptions, as well as differing cultural contexts, may account for these mixed outcomes.

Similarly, Place Attachment (H5) and Tourist Satisfaction (H6) do not significantly influence Environmentally Responsible Behavior. These findings diverge from those of Cheng et al. (2018), who suggest that visitors possessing a strong emotional connection to a location, or experiencing high levels of satisfaction, are more inclined to engage in environmentally responsible behaviors. In the specific context of Praiijng Traditional Village, factors such as limited environmental awareness programs or the brief nature of visitors' stays may reduce the likelihood of translating attachment or satisfaction into concrete pro-environmental actions.

Overall, the results underscore the complexity of relationships among service quality, tourist satisfaction, place attachment, and environmentally responsible behavior. While enhanced service quality and greater tourist satisfaction do reinforce each other and foster stronger destination attachment, they do not necessarily lead to more responsible environmental behavior. This discrepancy highlights the potential need for targeted educational initiatives, policy support, and community engagement programs that can effectively link visitors' emotional attachment and satisfaction to environmentally responsible actions.

Conclusions

In this study, the Praiijng Traditional Village must provide good Service Quality for visitors who come to the Praiijng Traditional Village by paying attention to the 5 dimensions of Service Quality so that it can affect visitor satisfaction. Service quality can be achieved by providing training to workers regarding understanding services, dealing with visitor complaints, and improving the quality of information provided to visitors to the Praiijng Traditional Village. Another thing that must be considered is Tourist Satisfaction because it has a big influence on visitor satisfaction, the Praiijng Traditional Village must pay attention to the comfort of visitors who come to visit. In addition, what needs to be considered by the Praiijng Traditional Village is Place Attachment because it involves the attachment of the Praiijng Traditional Village to visitors who come to visit so that they have a sense of belonging to the Praiijng Traditional Village, not just coming to visit. Finally, there is Environmentally Responsible Behavior that needs to be considered by the Praiijng Traditional Village, namely how visitors can pay attention to the surrounding environment in the place visited so that they can be responsible for what is done around the environment of the Praiijng Traditional Village.

Future researchers are advised to analyze other tourist attractions in Indonesia, because Indonesia has many islands which, if explored, are not inferior to those on Sumba Island. In addition, this research was only conducted from the perspective of domestic tourists on tourist attractions on Sumba Island, so it is necessary to conduct research from the perspective of foreign tourists on tourist attractions on Sumba Island.

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