FACTORS AFFECTING TOURISM DESTINATION COMPETITIVENESS IN VIETNAM

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ABSTRACT

The study’s objective was to explore and measure the impact of factors affecting tourism destination competitiveness in Vietnam. Participants included 192 tourists in Hanoi city and neighboring provinces in the period from October 2021 to April 2022. Based on the 192 valid responses from the questionnaire survey method, the correlations between the variables were analyzed and the hypotheses verified. To study the relationships among the latent variables with reliable tools (SmartPLS 3.0 software), the study applied the partial least squares approach to structural equation modeling (PLS-SEM). The results identified the following factors that affect tourism destination competitiveness in Vietnam: Environmental quality is the most influential factor; Tourism infrastructure and Tourist satisfaction have the second-strongest influence on tourist destination competitiveness; Historical and sociocultural perspectives and Human resources also affect tourist destination competitiveness. The study provides empirical evidence and explains the factors that affect tourist destination competitiveness. Finally, several recommendations are put forward to enhance tourism destination competitiveness in Vietnam.

Contribution/Originality: This is the first study to explore and measure the impact of factors affecting tourism destination competitiveness in Vietnam using the partial least squares approach to structural equation modeling (PLS-SEM).

1. INTRODUCTION

In the context of Vietnam’s participation in the international arena, tourism has become the most important economic activity that contributes significantly to the national economy. Although the growth of tourism seems to be progressing at an equal rate to other industries, there is increasing competition among destinations as tourism reaches a mature stage (Buhalis, 2000; Morgan, Pritchard, & Piggott, 2002). Moreover, a competitive advantage is created when popular tourist attractions compete with each other (Cimat & Bahar, 2003).

Tourism destination competitiveness plays a very important role in promoting destinations to favorable positions in the tourism market and maintaining their competitive advantage (Leung & Baloglu, 2013). Studies by Crouch and Ritchie (1999) and Pearce (1997) indicated that tourism destination competitiveness is a field that attracts considerable interest among tourism researchers. Many researchers have linked competitiveness to factors such as perspectives on economics, marketing, and strategy, as well as price competition, quality, and satisfaction. This issue
has been the subject of many scientific studies that have attempted to identify and evaluate tourism competitiveness factors.

Vanhove (2002) and Dimanche (2005) stated that the tourism sector is competitive when the tourist destination is attractive enough, and the quality of goods and services is competitive compared to other tourist destinations in the same market segment (Crouch & Ritchie, 1995; Ritchie & Crouch, 2003). Navickas and Malakauskaite (2009) indicated that there are several sectors that contribute to the competitiveness of tourism, including components such as the natural environment, artificial environment, and globalization of markets.

In Vietnam, the study of the impact of tourism destination competition is a topic that attracts the attention of many scientists, especially in the context of Vietnam's deeper and broader international integration (Le & Dao, 2021). According to the United Nations World Tourism Organization (UNWTO, 2008), tourism plays a critical role in urban development as it combines competitive tourism service offerings to satisfy customer expectations. At the same time, it also has an impact on the development of the neighboring areas and the prosperity of the area’s inhabitants.

This study explored the factors affecting tourism destination competitiveness in Vietnam by employing the PLS-SEM method. Specifically, the study investigated the critical factors that influence tourism destination competitiveness in Vietnam. The paper comprises three main sections: following this introduction, the literature review section provides the background to this work; next, the methodology is presented, followed by the results; finally, the paper discusses the findings and concludes with policy implications and suggestions for overcoming limitations and promoting the sustainable development of tourism in cities.

2. LITERATURE REVIEW AND PROPOSED HYPOTHESES

2.1. Tourism Destination Competitiveness

The term competitiveness is used extensively in management; it is one of the key issues in the fields of economics, business, and development. It is also an indispensable element of the tourism and hospitality industry. Navickas and Malakauskaite (2009) and Gooroochurn and Sugiyarto (2005) stated that a country’s tourism competitiveness is reflected in factors such as its market development conditions, social development level, environmental quality, human resource level, infrastructure, information technology level, and ability to provide services.

The concept of competitiveness and its application to comparisons between tourism destinations has been explained through the price competitiveness index in the studies of Dwyer, Forsyth, and Rao (2000); Dwyer, Mistilis, Forsyth, and Rao (2001); Mangion, Durbarry, and Sinclair (2005); Mazanec, Wöber, and Zins (2007). Based on the exchange rate adjusted purchasing power parities variable, the authors constructed a price competitiveness index (Song & Witt, 2012). However, econometric demand modelers expect more than just a ranking of destinations based on price competitiveness, they want to explore the actual impact of tourism variables on the demand volume.

The model developed by Ritchie and Crouch is considered the most comprehensive to date and was applied in several publications over a period of 10 years, most notably in the research of Crouch and Ritchie (1995); Crouch, Ritchie, and Hudson (2000); Ritchie and Crouch (1993) and Ritchie and Crouch (1999); Ritchie, Crouch, and Hudson (2000); Ritchie and Crouch (2003). The strength of the model is apparent when it comes to distinguishing comparative and competitive advantages; the model includes important factors that affect the tourism competitiveness of a destination. These elements included qualifying and amplifying determinants, the destination's policies and regulations, planning and development, destination management, core and supporting resources, attractors, and supporting factors. Ritchie, Crouch, and Hudson (2001) developed a list of relevant indicators that included subjective consumer measures and objective industry measures with 32 destination competitiveness components. The result was a tool that simulated destination performance and an aggregate destination competitiveness index.

Other studies on destination competitiveness have focused on the image and attractiveness of the destination itself through an extension of Crouch and Ritchie’s approach (Chon, Weaver, & Kim, 1991; Hu & Ritchie, 1993). Most striking is the study of Gallarza, Saura, and García (2002), which focused on attributes likely to attract tourists, such
as climate, landscape, and accommodation. Thus, tourism services are considered an important factor in a destination’s image or product (Murphy, Pritchard, & Smith, 2000). However, these studies paid less attention to the factors affecting the competitiveness of the firms providing these services and products. Buhalis (2000) clearly showed the importance of suppliers, as well as the variety of products and services of individual manufacturers, in creating a complete tourism product. Nonetheless, the article was more concerned with the difficulties these businesses faced in marketing than with destination competitiveness.

The studies by Inskeep (1991) and Middleton and Hawkins (1998) indicated that environmental quality is an essential factor in determining the development of tourist destinations. This is congruent with the findings of Ritchie and Crouch (1993) and Mihalič (2000), who included eight main factors of tourism competitiveness. These were price competitiveness, infrastructure development, environmental quality, technology advancement, human resources, the level of openness, social development, and human tourism.

Other studies have focussed on particular aspects of destination competitiveness; for instance, the research of Chacko (1996) on destination positioning, Baker, Hayzelden, and Sussmann (1996) on destination management systems, Go and Govers (2000) on quality management, Hassan (2000) and Mihalič (2000) on the environment, Huybers and Bennett (2003) on nature-based tourism, and Jamal and Getz (1996) and Soteriou and Roberts (1998) on strategic management and package tours (Taylor, 1995). These studies have, on the one hand, made important contributions to the literature on destination competitiveness. However, there remain limitations in the scope of the research, particularly in the coverage of research subjects, such as destination or destination type, and competitive attributes and the extent to which these affect a destination’s competitiveness. To fill this research gap, the current paper, having reviewed the previous literature on destination competitiveness, evaluates the factors affecting tourism destination competitiveness in Vietnam. Based on these analyses, the paper proposes some solutions for the Vietnamese government to improve tourism destination competitiveness.

2.2. Proposed Hypotheses

The quality of the environment refers to the quality of the natural characteristics, including the natural landscape, quality of water and air, and diversity of species at the destination. However, environmental quality can deteriorate due to human activities relating to the increasing emission of environmental pollutants in recent years. These natural features can be polluted and lose their attractiveness, thereby reducing the quality of the destination. Environmental quality plays an important role in shaping destination quality and is an integral part of the quality of natural attractions (Middleton, 1997; Pizam, 1991). Inskeep (1991) claimed that in order to maintain the competitiveness of a tourism destination, it is crucial to ensure good overall environmental quality; this is common to most types of tourist destinations. At the same time, this is a top concern for destination managers. Thus, the first hypothesis was formulated as:

Hypothesis 1 (H). Environmental quality positively affects tourism destination competitiveness.

Tourism infrastructure includes infrastructure that directly serves tourism (road networks, airports, trains, bus systems, medical facilities, telecommunications, internet), as well as supporting infrastructure, including water supply and sewerage, sanitation, electricity generation systems, and relevant financial services. The competitiveness of the tourism destination infrastructure is reflected in the development of this infrastructure, which must be developed in accordance with government regulations (Cibinskiene & Navickas, 2005). According to Navickas and Malakauskaite (2009), the level of development can be measured through indicators such as the transportation system index, availability of hygiene infrastructure, the quality of clean water for household consumption, the railroad network, the number of airlines, the quality of telecommunication system, and more (Manente, 2005). Of these, the transportation system index estimates the relationship between the length of the road system and the population of the tourist destination, or the level of urbanization at the destination with other regional indices. A lack of tourism infrastructure, or a level of tourism infrastructure that affects the tourist experience, is an important predictor of both destination
quality and the perceived value of a trip (Manente, 2005; Murphy et al., 2000). A study by Tozser (2010) in the Matra mountains in Hungary showed that tourism infrastructure is the most important factor attracting tourists, followed by tourist safety and other factors. For this reason, the second hypothesis was:

**Hypothesis 2 (H2). The tourism infrastructure positively affects tourism destination competitiveness.**

Tourism is an industry that relies heavily on the labor market. Human resources are, therefore, considered an important measure of competitiveness (Kochetkov, 2006). When tourists visit a destination attraction, they buy not only the product and the experience of the attraction but also the services of employees in the tourism industry. Bueno (1999) emphasized that human resources at the destination play an important role in enhancing the competitiveness of tourist destinations. This is one factor that helps tourist destinations maintain a competitive advantage; tourists tend to return to a destination where they feel that the people are friendly, polite, and hospitable. According to Navickas and Malakauskaite (2009), the human resource index charts the quality of human resources at the destination, as measured through their level of education. Accordingly, employees with higher education are more likely to provide quality services (Gooroochurn & Sugiyarto, 2005). Hence, the third hypothesis was:

**Hypothesis 3 (H3). Human resources positively affect tourism destination competitiveness.**

The choice of destination, the consumption of tourism products and services, and the decision to return can all be influenced by tourists' satisfaction. Tourist satisfaction is one of the elements that contribute to the successful organization of the destination (Kozak & Rimmington, 2000). Improving tourist satisfaction has a positive impact on tourism service providers and enhances the reputation of the destination. Moreover, it helps to strengthen tourists' loyalty to that destination, increases the productive force for products and services, and reduces future transaction costs (Dwyer & Kim, 2003; Dwyer, Forsyth, & Spurr, 2004). The satisfaction of tourists is based on individual perceptions as well as on affective considerations. This means that effective tourism products and services are created based on their cognitive and psychological value (Kesić & Pavlić, 2011). That is, tourist satisfaction is the result of different psychological or functional characteristics of tourists. Scholars have also emphasized that satisfaction is intrinsic in nature, operating at the conscious level of tourists’ minds. In other words, each person's psychological experience is directly affected by social norms and behaviors derived from beliefs or emotion-based perspectives (Pavlic, Peruec, & Portolan, 2011).

Research by Bowen and Clarke (2002) has shown that tourist satisfaction consists of many components, including expectation, performance, the intertwining of expectation, performance and disconfirmation, attribution, emotion, and equity; the specific components can change depending on the travel situation in question. Meng, Tepanon, and Uysal (2008) emphasized that attributes, including importance, performance, and motivation, are functions that measure tourist satisfaction, and each of these functions influences the overall satisfaction with a tourism destination. Among them, quality performance and friendly service have the strongest impact on tourists' mental perception of their journey, more so than motivational attributes. Based on these findings, the fourth hypothesis was:

**Hypothesis 4 (H4). Tourist satisfaction positively affects tourism destination competitiveness.**

Dwyer and Kim (2003) pointed out that tourism destination competitiveness also depends on the destination's price competitiveness, which creates unique tourist experiences for visitors. Many studies, such as those of Navickas and Malakauskaite (2009) and Gooroochurn and Sugiyarto (2005), have suggested that price competitiveness is one of the crucial factors in satisfying tourists' demands, including costs of transportation to and from the destination, as well as costs at the destination, such as accommodation, tour services, food and beverages, and entertainment (Dwyer et al., 2000; Dwyer & Kim, 2003; Kozak & Rimmington, 2000). Several studies have shown that price competitiveness differs in different markets (Choong-Ki, Var, & Blaine, 1996; Huong, 2019), and the degree of price competitiveness can be affected by factors such as technology levels, exchange rates, government policies, industry competition, and the influence of multinational enterprises (Dwyer et al., 2000; Dwyer, Forsyth, & Rao, 2002). The study of Gooroochurn and Sugiyarto (2005) pointed out that differences in levels of economic development also create price
differences because less developed countries often focus on the quality of tourism products and services, but also tend to make them more expensive because the goods are designed for local needs. Therefore, our fifth hypothesis was:

*Hypothesis 5 (H₅). Price competitiveness positively affects tourism destination competitiveness.*

Several previous studies have examined how cultural and historical aspects enhance the attractiveness of a tourism destination, concluding that tourism destination competitiveness can be influenced by morals, ethics, the power of the state, customs, cultural values, and moral discipline (Franke, Hofstede, & Bond, 1991; World Economic Forum, Harvard University, & Center for International Development, 2001). Historical and sociocultural aspects are considered a factor that has considerable influence on the tourism destination competitiveness; they are reflected in its history, institutions, customs, architectural features, cuisine, traditions, artwork, music, handicrafts, and dance (Cohen, 1988; Murphy et al., 2000). Together, these provide a basic and powerful attractive force for potential tourists (Prentice, 1993). According to the OECD (2009), the cultural aspect is a source of both competitive and comparative advantage for a destination because it creates a unique and authentic experience for visitors and, at the same time, creates a connection to the hosts at a destination. The historical and sociocultural background of the destination is the result of the quintessence accumulated over the years; it brings maximum value to the destination, helps to build its brand, and positions the typical tourism product with the destination’s unique cultural features in the minds of tourists (Dwyer & Kim, 2003; OECD, 2009). Hence, our final hypothesis was:

*Hypothesis 6 (H₆). Historical and sociocultural aspects positively affect tourism destination competitiveness.*

The research model developed based on the literature review and proposed hypotheses includes the following elements: environmental quality, tourism infrastructure, human resources, tourist satisfaction, price competitiveness, and historical and sociocultural aspects. The proposed model is illustrated in Figure 1.

![Figure 1. The proposed theoretical framework](image)

3. METHODOLOGY

Based on the theoretical framework and the developed hypotheses, the study’s variables were generated based on a pilot sample and the judgment of experts and researchers. The data were collected through interviews, in which a structured questionnaire was employed to elicit perceptions/opinions about tourism destination competitiveness. Two communication approaches were used, namely, “survey via personal interview” and “self-administered survey.” According to Hair, Hult, Ringle, and Sarstedt (2016), the PLS path model is valid only when the minimum sample
size is 10 times the maximum number of arrowheads pointing at a latent variable. First, the questionnaire was sent to five experts in the field of tourism who have a deep understanding of the theory of tourist destination competitiveness. Next, we surveyed 200 domestic and foreign tourists using questionnaires. Of the 200 samples collected, 192 were valid samples, and 8 were invalid samples (due to lack of information). Subsequently, the data from the samples were analyzed.

To achieve the research objectives, the authors applied Partial Least Squares Structural Equation Modeling (PLS-SEM), taking advantage of this approach as recommended in the early stages of development to assess and verify the exploratory research models, which may also help with cause and effect analysis in behavioral studies. On the one hand, if there is very little theoretical basis, applying PLS-SEM is a more suitable solution compared to covariance-based structural equation modeling (CB-SEM), although CB-SEM is more suitable for model fit assessment than PLS-SEM. On the other hand, no previous research with a similar theoretical framework has been proposed for the factors influencing tourism destination competitiveness. In addition, the study also proposed a new scale for this research model.

4. RESEARCH RESULTS

4.1. Analysis of Demographic Variables

A total of 192 tourists participated in this study, including 101 males and 91 females, with ages ranging from 22 to more than 50 years old. Table 1 shows the frequency distribution of the sample data.

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>101</td>
<td>52.6%</td>
</tr>
<tr>
<td>Female</td>
<td>91</td>
<td>47.4%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 – 30</td>
<td>40</td>
<td>20.8%</td>
</tr>
<tr>
<td>31 – 40</td>
<td>33</td>
<td>17.1%</td>
</tr>
<tr>
<td>41 – 50</td>
<td>41</td>
<td>21.3%</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>78</td>
<td>40.9%</td>
</tr>
</tbody>
</table>

Table 1 shows that the proportion of males and females is 52.6% and 47.4%, respectively. In terms of age, the majority of tourists (40.9%) were in the >50 age group, 21.3% were in the 41–50 group, 17.1% were in the 31–40 group, and 20.8% of the tourists were 22–30 years old.

4.2. Reliability and Validity Test

Hair, Black, Babin, Anderson, and Tatham (1998) indicated that the measurement indicators included individual item reliability, where reliability refers to the consistency of scale tools and internal consistency. Individual item reliability was verified by factor loading. The internal consistency was verified through latent variable Composition Reliability (CR) and Cronbach’s alpha. Values greater than 0.7 were considered valid; therefore, the price competition variable was considered inappropriate because Cronbach’s alpha was 0.656, as shown in Table 2. Hence it was excluded from the model.

The measurement indicators included convergent validity and discriminant validity, which refer to the correctness of the scale tool (Truong et al., 2021). The convergent validity measures the correlation between items with the same dimension and detects the Average Variance Extraction (AVE). The recommended value must be greater than 0.5. (Bagozzi and Yi (1988). The discriminant validity measures the correlation between items with different facets using the square root value of AVE. If the square root value of the diagonal AVE is greater than the correlation coefficient value of the horizontal or vertical column, it represents discriminative validity (Fornell &
Larcker, 1981). Table 2 indicates that the factor loadings of the questionnaire items were all greater than 0.7. Additionally, the Cronbach’s alpha and CR values of all dimensions were greater than 0.7, showing that they met the verification standard and had good reliability and internal consistency. Table 2 also shows that the AVE value of each dimension was greater than 0.5, indicating good convergent validity.

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Items</th>
<th>Factor Loadings</th>
<th>Cronbach’s Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Quality (EQ)</td>
<td>EQ1</td>
<td>0.837</td>
<td>0.854</td>
<td>0.854</td>
<td>0.901</td>
<td>0.695</td>
</tr>
<tr>
<td></td>
<td>EQ2</td>
<td>0.846</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EQ3</td>
<td>0.819</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EQ4</td>
<td>0.830</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism Infrastructure (TI)</td>
<td>TI1</td>
<td>0.728</td>
<td>0.814</td>
<td>0.821</td>
<td>0.878</td>
<td>0.643</td>
</tr>
<tr>
<td></td>
<td>TI2</td>
<td>0.843</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TI4</td>
<td>0.810</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TI5</td>
<td>0.822</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human Resources (HR)</td>
<td>HR2</td>
<td>0.868</td>
<td>0.866</td>
<td>0.876</td>
<td>0.908</td>
<td>0.713</td>
</tr>
<tr>
<td></td>
<td>HR3</td>
<td>0.831</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HR4</td>
<td>0.878</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HR5</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Satisfaction (TS)</td>
<td>TS1</td>
<td>0.792</td>
<td>0.771</td>
<td>0.774</td>
<td>0.868</td>
<td>0.686</td>
</tr>
<tr>
<td></td>
<td>TS2</td>
<td>0.838</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TS3</td>
<td>0.854</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Price Competitiveness (PC)</td>
<td>PC1</td>
<td>0.844</td>
<td>0.656</td>
<td>0.724</td>
<td>0.795</td>
<td>0.566</td>
</tr>
<tr>
<td></td>
<td>PC2</td>
<td>0.728</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PC3</td>
<td>0.674</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historical and Sociocultural Aspects (HS)</td>
<td>HS1</td>
<td>0.773</td>
<td>0.791</td>
<td>0.806</td>
<td>0.878</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>HS2</td>
<td>0.845</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>HS4</td>
<td>0.899</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourist Destination Competitiveness (TDC)</td>
<td>TDC1</td>
<td>0.810</td>
<td>0.860</td>
<td>0.861</td>
<td>0.905</td>
<td>0.704</td>
</tr>
<tr>
<td></td>
<td>TDC2</td>
<td>0.836</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TDC3</td>
<td>0.861</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TDC4</td>
<td>0.849</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that in the matrix, the square root value of the diagonal AVE was greater than the other correlation coefficient values. Table 4 shows that all values detected by heterotrait–monotrait analysis were less than 0.9, indicating good discriminant validity (Henseler, Ringle, & Sarstedt, 2015).

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>HS</th>
<th>EQ</th>
<th>HR</th>
<th>TDC</th>
<th>TI</th>
<th>TS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS</td>
<td>0.841</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EQ</td>
<td>0.413</td>
<td>0.834</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>0.277</td>
<td>0.229</td>
<td>0.844</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TDC</td>
<td>0.671</td>
<td>0.757</td>
<td>0.519</td>
<td>0.839</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TI</td>
<td>0.193</td>
<td>0.366</td>
<td>0.047</td>
<td>0.512</td>
<td>0.802</td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>0.261</td>
<td>0.206</td>
<td>0.263</td>
<td>0.506</td>
<td>-0.111</td>
<td>0.828</td>
</tr>
</tbody>
</table>

Note: HS - Historical and Sociocultural Aspects, EQ - Environmental Quality, HR - Human Resources, TDC - Tourist Destination Competitiveness, TI - Tourism Infrastructure, TS - Tourist Satisfaction.
4.3. Structural Equation Modeling Analysis

Hair, Ringle, and Sarstedt (2011) indicated that when the Variance Inflation Factor (VIF) is greater than 5, a collinearity problem between the dimensions may occur. Therefore, collinearity problems must be eliminated when conducting structural equation modeling (SEM). The VIF values of the SEM in the study were between 1 and 1.405, which means that there was no collinearity among the study dimensions. The PLS-SEM also uses indicators such as Standardized Root Mean Square Residual (SRMR), Normed Fit Index (NFI), and root mean squared (RMS_theta) to evaluate the appropriateness of the overall model. The SRMR value ranged from 0 to 1, and the SRMR value in the study was less than 0.08, indicating it fit the model (Do, Nguyen, Le, & Ta, 2020; Hu & Bentler, 1998; Tran & Huang, 2022). The NFI value also ranged from 0 to 1; when the NFI value is large, better performance will be obtained. Bentler and Bonett (1980) stated that an NFI value greater than 0.9 means that the model fits well. Among these indicators, the RMS_theta value is only suitable for evaluating reflective measurement models, and when the value is less than 0.12, it means that the model fits well. Table 5 shows that the SRMR value was 0.064, indicating that the model fitted well. Although the NFI value was less than 0.9 (0.754), it did not make much difference. The RMS_theta value was greater than 0.12 (0.163); however, it was still acceptable. Thus, the model in this study was considered appropriate. Table 5 shows the collinearity analysis and model fit values.

<table>
<thead>
<tr>
<th>Table 5. Collinearity analysis and model fit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension Correlation</td>
</tr>
<tr>
<td>HS and TDC</td>
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<td>EQ and TDC</td>
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<td>HR and TDC</td>
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<td>TI and TDC</td>
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<td>TS and TDC</td>
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The next step was model verification, which was analyzed and explained using path analysis and R². The value of t in the path analysis was used to determine whether the hypotheses were true. When the t value is 3.29, it was determined that it reached a significance level of 0.001. Table 6 shows that H₁, H₂, H₃, H₄, and H₆ reached a significance level with a p-value of less than 0.001, which means that hypotheses H₁, H₂, H₃, H₄, and H₆ were proven valid in the research; see the research model results in Figure 2.

<table>
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<th>Table 6. Path analysis verification.</th>
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<td>Path Analysis</td>
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<td>HS → TDC</td>
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To assess the importance of the hypothesized connections, the bootstrapping technique was used to analyze the t-statistics for the path coefficients (Efron, 1992; Hair et al., 2011; Yung & Bentler, 1994). Rice (1989) indicated that the p-value is a continuous measure of evidence. However, it is usually categorized into highly significant, marginally significant, and statistically insignificant at conventional levels, with cut-offs at p ≤ 0.01, p ≤ 0.05, and p > 0.10. Table 6 shows that there are significant effects of environmental quality, tourism infrastructure, human resources, tourist satisfaction, and historical and sociocultural aspects (p < 0.01). This means that five of the six hypotheses in this study were proved valid (H₁, H₂, H₃, H₄, and H₆). Among these variables, environmental quality (EQ) was the most influential factor (β = 0.390, t = 15.743, p = 0.000). Tourism infrastructure (TI) and tourist satisfaction (TS) had the second-strongest influence on tourist destination competitiveness (β = 0.336, t = 12.045, p = 0.000; β = 0.321, t = 11.393, p = 0.000, respectively). Historical and sociocultural aspects (HS) and human resources (HR) were two other
significant factors that affected tourist destination competitiveness ($\beta = 0.292$, $t = 9.179$, $p = 0.000$; $\beta = 0.248$, $t = 9.529$, $p = 0.000$, respectively). The research model results are shown in Figure 2.

![Research model results](image)

**Figure 2.** Research model results.

### 5. CONCLUSIONS AND POLICY RECOMMENDATIONS

This study tested the tourism destination competitiveness in Vietnam in several steps. The research used the PLS-SEM method to analyze the factors affecting tourism destination competitiveness in Vietnam. The results showed that 5 of the hypotheses were supported by the model. Conclusions were also drawn from the results on the level of influence of the groups of factors studied as variables in the research. Five factors that affected tourism destination competitiveness in Vietnam were identified, of which environmental quality was the most influential factor. The second strongest influence on tourist destination competitiveness was displayed by tourism infrastructure and tourist satisfaction. These were followed by the two factors historical and sociocultural aspects and human resources. This research contributes to the literature by providing empirical evidence and explaining the impact level of each factor on tourist destination competitiveness.

Suggested solutions to enhance tourism destination competitiveness in Vietnam are, first, to improve tourist satisfaction. To enhance tourist satisfaction, local authorities need to pay special attention to the quality management of touristic products and services, promoting and acting as a bridge for travel companies and businesses operating in the hotel and restaurant industry to create high-quality tourism products that are suitable for tourists’ tastes. At the same time, the government should implement policies to preserve the characteristics of the local culture, as well as solutions to restore and preserve the traditional craft villages, and create a variety of tourism products with the aim of improving tourism destinations to attract domestic and foreign tourists. Secondly, transparency in the price policies of tourism products and services is essential. Managing price policies in Vietnamese tourism will create confidence for customers when buying tourism products and services, thereby attracting more tourist customers. Policies need to have transparency regulations requiring travel companies and service providers in tourism to list prices clearly, commit to product quality, and provide services in accordance with the price demanded. Thirdly, tourism
infrastructure facilities must be built and upgraded. Investment in and upgrading of infrastructure works should be implemented and completed, especially as it pertains to major roads. Moreover, cultural works across the country must be protected and restored, taking advantage of tourism development opportunities in each region. Fourth, high-quality tourism human resources must be trained. To improve the competitiveness of tourism destinations, Vietnam needs to ensure a training program for the tourism industry workforce that fully incorporates factors such as professional skills, ethics, and the ability to work in an internationally standardized environment. In addition, the relevant authorities need to coordinate with training institutions and regularly run refresher courses to improve professional qualifications for workers in the tourism industry through domestic and foreign courses. Lastly, the quality of the destination’s environment and resources must be managed. A safe and friendly tourist environment is a core factor for enhancing the competitiveness of a destination. Local authorities need to improve, through education, locals’ civilized and polite behavior towards tourists, as well as respect for and preservation of the surrounding environment. It is necessary to put in place strict sanctions to limit enticing, price pressure, and fraudulent acts at tourist destinations across the country.

**Funding:** This study received no specific financial support.

**Competing Interests:** The authors declare that they have no competing interests.

**Authors’ Contributions:** All authors contributed equally to the conception and design of the study.

**REFERENCES**


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