Research on the structure model of competitive factors of tourism information systems influencing socio-economic environmental performing arts industry in Anhui province based on SmartPLS analysis method

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ARTICLE INFO	ABSTRACT
	With the development of technology, tourism information systems are playing an important role in facilitating travel and enhancing tourist experiences. These systems include online booking platforms, mobile applications, virtual tour guides, and information centers that allow tourists to store destinations accommodation and provide valuable information about events and cultural experiences. The purpose of this study is to understand how socio-economic factors affect travel decisions and how the tourism information system takes advantage of technology so that tourists have valuable information and services can be provided. Looking for this relationship, the study enhances tourist experiences, helping local economies, and it wants to identify opportunities to promote sustainable practices that meet both tourist preferences and the needs of local communities. In the Anhui region of China, the study uses a survey method to gather data from 300 visitors at popular tourist destinations such as Zhiyuan Temple, Tunxi Ancient Street, Huangshan's granite peaks and twisted pines, and Wancuilou Museum. The data is analyzed using structural equation modelling (SEM). Convenience sampling, a non-probability sampling technique, is the foundation of this study. In the fictitious study's results, the effect of socio-economic factors on tourists' travel decisions, the importance of a tourism information system in enriching travel experiences, and the ability of tourism information systems to support local economies and promote sustainable practices can be included. In addition, tourism information systems can offer valuable contactless solutions for tourists, and there may be opportunities to use technologies such as virtual reality and agnate reality for immersive destination previews. The study offers perceptions on the variables that entertainers and artists should consider to maintain their system in the market and enhance the province's overall tourism offering. The research gap needs to be filled is how to improve the current models of Anhui province's tourism information system factors to better prepare visitors for consumer behavior. In addition to giving a more thorough understanding of consumer behavior and government policies regarding the technology used in the tourism information system, the research findings may serve to increase the overall quality of the tourism industry.

Keywords: Tourism Information Systems, Socio-Economic Factors, Structural Equation Modelling (SEM), Consumer Behavior, Government Policies. |

INTRODUCTION

There are two big industries that greatly support the socio-economic development of tourism information systems and art industries. The ability of a nation or region to draw visitors and art enthusiasts from around the world and to give them high-quality services and experiences is referred to as competitiveness in these industries (Tse, 2001). The creation of a model to explicate the competitive success of tourism businesses, including the internal and external mechanisms of the organization underlying the generation, sustainability, and ownership of comparative, shared, and competitive advantages, as well as the accomplishment of economic rents, is the first

contribution to the literature (Camisón & Forés, 2015). Tourism information system plays a vital role in the tourism industry by providing tourists with accessible and up-to-date information. When integrated with social-economic factors, it can enhance tourist experiences, support local economies, effectively target markets, promote sustainable practices, promote community involvement, and facilitate mutual cooperation planning for balanced tourism development. Using tourism information systems effectively, destinations can create a more competitive and sustainable tourism sector while preserving cultural and environmental assets (Swanson, Davis, & Zhao, 2008). Tourism is a crucial source of funding to help these nations recover from their unrest (Nissan, Galindo, & Méndez, 2011). Tourism is one of the most effective economic sectors that successfully compete with other agricultural production and commerce product branches. Cultural assets can also draw tourists to a particular destination (Alberti & Giusti, 2012). The Lithuanian tourism industry includes a sizable portion of rural tourism, which stands out for its originality, services offered, and competitive attributes. These characteristics play a crucial role in determining the state and regional tourism brands, and they also help inbound tourism expand (Snieška, Barkauskienė, & Barkauskas, 2014). To create more distinct identities, creative resources are now frequently used, giving cities and regions a symbolic advantage in a competitive market. Due to the increased competition for tourism business from locations lacking a richly constructed legacy, the emphasis on such initiatives has also changed from tangible to intangible cultural values (Richards, 2011). The integration of information communication technology into the tourism information system has revolutionized the tourism industry. This real-time information delivery, online booking, mobile applications, virtual reality experiences, extensive data analytics, personalized content, social media engagement and enables sustainability monitoring. This information communication technology-driven change enhances the overall tourism experience, paves the way for operations, and promotes sustainable tourism practices (Scherer & Siddiq, 2019). The interdependence of the tourist sector makes businesses in several industries, such as transportation, tour operators, and hotels, extremely dependent on one another. One's impact on the other is magnified if one fails to provide a service. The "interdependent" nature of tourism plays a positive part in supplying the total service quality of the product that consumers purchase, along with other features of tourist products and services, including their intangibility perish, ability, and inseparability. As a result, for the tourism sector to create value and provide goods and services to the client, numerous organizations must collaborate as a value chain (Yilmaz & Bititci, 2006). In conclusion, governments should invest in infrastructure, marketing, distinctive cultural experiences, support for local artists, technology, and sustainability to increase their competitiveness in the tourist and art industries. They may increase economic growth, draw in more tourists and art enthusiasts, and improve their standing abroad by doing this.

The purpose of the study on the structure model of competitive factors of the tourism information system in Anhui province is to pinpoint and examine the major elements that have an impact on the competitiveness of the Chinese province's tourism information communication technology system sector. The study specifically tries to investigate the socio-economic factors, environmental factors, governmental policies, markets, and consumer behavior that affect the competitiveness of the business. An organized model has been used in the study to examine the connections among these variables and their effects on the performing arts tourist sector. The study will also look into how much each aspect impacts the industry's ability to compete, as well as how these factors interact. The ultimate objective of this study is to offer perceptions and suggestions that can be applied to enhance the competitiveness of the information system of the tourist sector in Anhui province. This will support regional socio-economic expansion, cultural advancement, and environmentally friendly tourism.

Objective of the Study

The objectives of the study are as: (1) To examines the impact of socio-environmental factors on tourism information system with the mediating role of consumer behavior. (2) To examines the impact of market trends on tourism information system with the mediating role of consumer behavior. (3) To examines the impact of socio-economic factors on tourism information system with the mediating role of consumer behavior. (4) To examines the impact of consumer behavior and tourism information system with the moderating role of government policies.

LITERATURE REVIEW

Tourism Information System

In terms of competitiveness, the tourism information system can complement one another. Similar to how the information systems are viewed, a successful tourism industry becomes a place of inventions and inventiveness. As a strategy for growing Indonesian tourism, cultural tourism emphasizes the importance of cultural features as a top draw for travellers to a particular destination (Wahyono & Hutahayan, 2020). For some time, researchers and practitioners have been interested in measuring company success in the tourism sector. In contrast to studies conducted for manufacturing businesses, the tourist sector needs more studies on performance measurement (Yilmaz & Bititci, 2006). Many groupings of taxes and levies related to tourism are mentioned by the World Tourism Organization. These include fees for entry and exit (visas), transportation (airport and harbor charges, fees for vouchers, assistance and dues on fuel), lodging, dining, road traffic (tolls and other taxes) and renting a car (municipal dues and petrol tax) (Bejakovi, 2012). Additionally, fostering inclusivity and diversity of culture can make the art world and tourism more appealing to a larger spectrum of tourists, which can improve their competitiveness. The art and tourism sectors can collaborate to develop a lively and dynamic cultural landscape that draws tourists worldwide.

Environmental Factors

Environmental aspects, including the standard of natural attractions, the purity of the air and water, and weather patterns,

have a positive impact on the tourism business. The appeal of tourism locations can be negatively impacted by environmental degradation, resulting in lost revenue and diminished competitiveness. The following additional factors make the subject of sightseeing highly pertinent to academic study and practitioner-focused consulting: No matter their status, race, gender, age, health, class, caste, or language, all have the right to equal treatment. Women experience greater discrimination and lack of access to social, political, and economic opportunities than men (Mayer & Vogt, 2016). The exchange of cultures, the revival of cultural activity, the promotion of social integration (increasing interactions among residents and visitors), Social norms about the ideals and practices of masculinity and femininity (such as physical characteristics, temperament, occupation/role fit, etc.) inform tourism, which is influenced by culture and historical context. In the meantime, the environmental benefits of rural tourism include landscape preservation, infrastructural improvement, and environmental conservation (of natural regions) (Barkauskas, Barkauskienė, & Jasinskas, 2015). Demand for goods and services that are created ethically is rising as environmentally conscious consumers become more prevalent. Businesses can take advantage of these chances to serve this market niche and get a competitive edge.

Market Trends

Market trends positively influence how competitively the tourism business is positioned. Businesses and destinations can stay competitive and fulfil the evolving demands and tastes of travellers by understanding and adjusting to these changes. The way tourists purchase their goods is changing drastically. In many parts of the industrialized world, distribution channels for airlines, hotels, rental cars, and excursions are already moving to the Internet. Many airlines have stopped paying travel agents or cut their payments, which has caused agency ranks to shrink and their business models to become more specialized. There are some indications that future tourists will pay more attention to how their travels will affect the environment. This does not imply that people will stop travelling, but they will likely select activities and modes of transportation that lessen or balance environmental consequences (Tretheway & Mak, 2006). The tourism industry faces significant technological advances in integrating information communication technology into tourism information systems. Domination of mobile devices for booking in crucial market trends, personalized experiences, contactless solutions, virtual tours, social media influence, smart places., block China-based transactions, sound-driven technology, sustainable tourism practices, and more focus on data security and privacy. These trends are shaping the future of travel and enhancing the role of tourism information systems in providing tourist experiences without interruption and in a personal nature (Laroche, 2010). The "organizational factors that enhance or impede the implementation of the business philosophy represented by the marketing concept" were described as the antecedents to market orientation. They were aware of external influences and did not discount them, but they considered their main contribution as mitigating the connection among market orientation and its results. Because managers have greater

control over internal antecedents than external ones, they claimed that choosing an internal perspective is appropriate (Qu, Ennew, & Sinclair, 2005). The key to remaining competitive in the tourist sector is keeping up with market developments and evolving to meet customers' needs. Long-term success will be more likely for companies and locations offering travellers distinctive, personalized, and sustainable experiences that respond to their requirements and preferences.

Socio-economic Factors

Economic issues are critical in determining how competitive the tourism business is. Tourism is a progressive industry which improves a community's well-being. The expansion of infrastructure, recreational facilities, and entertainment options, as well as other social and cultural activities brought on by tourism, may improve the standard of living in a town. Tourism growth, therefore, affects the standard of living in the destination and goes beyond an increase in hotel rooms, tourists, and tourist spending (Tse, 2001). Socio-economic factors and tourism information systems in the tourism industry are interconnected socio-economic factors affect travel decisions, while tourism information systems use technology to provide relevant information and services to tourists. By integrating socio-economic factors into tourism information systems, destinations can enhance tourist experiences, support local economies and can promote sustainable practices that meet both tourist preferences and community needs (Li, Cheng, & Wang, 2014). The restrictions among national enterprises have tended to blur in recent years. Individuals and families can travel further because of the incremental amount of interest in tourism. The improvement of tourism-related commodities and services, advancements in communications and transportation, creative marketing strategies, and other elements which play an important role in the growth of the industry (Kriščiūnas & Greblikaitė, 2007). Economic issues have a significant impact on how competitive the tourism business is. Long-term success will be more likely for companies and locations that can adjust to shifting economic situations and offer top-notch, reasonably priced, and easily accessible tourism goods and services.

Consumer Behavior

Travellers' environmentally friendly decision activity for green products and services for environmental continuation is passed on to pro-environmental buying as one positive form of environmentally sustainable consumer behavior in the tourism and hospitality industries. These complex pro-environment decision-making processes are the source of such environmentally responsible choices. People who engage in ecologically friendly consuming practices reduce their adverse effects on the environment and sometimes even help it. Similarly, when tourists are consuming goods, their environmentally responsible consumption practices are undeniably major factors in environmental preservation at a tourist location, while their environmentally negligent consumption practices are crucial causes of adverse environmental impacts on the destination (Han, 2021). Future tourism marketers will face a positive issue in figuring out how to make the most of social media's unique customer engagement capacity without appearing overly exploitative. The key psychographic characteristics of the travelling boomer seek authenticity, spiritual and mental enlightenment, nostalgia,

convenience, and spontaneity, all wrapped in a secure, personalized, healthy, and environmentally friendly package and delivered with excellent customer service (Li, X., Li, X. R., & Hudson, 2013). For businesses and destinations to be competitive in the tourism sector, knowing consumer behavior is crucial. Businesses and destinations can modify their products to match customers' shifting requirements and expectations by studying travellers' motivations, preferences, and behaviors.

Government Policies

Conceptions of social interaction and changes in societal systems contrast with the function of the state and appropriate government responses. Such observations are crucial for understanding tourism policymaking because they suggest that assumptions about the proper role of the state, the relationship between the state and particular policy actors, their responsibilities, and their political behavior underlie how policies are designed to act (Michael Hall, 2011). Governments in many developing nations play a major role in both the growth of tourism and the issuance of ethnicity-related laws. The development of ethnic resources, traditions, and artifacts may be the basis of government tourism strategies, which may also exploit ethnic imagery to promote travel (Yang, Wall, & Smith, 2008). Governments can assist the sector by funding infrastructure projects, promoting travel, licensing and regulating travel-related firms, offering subsidies and tax breaks, and safeguarding travel destinations' environment and cultural heritage.

Hypothesis Development

Natural resources, climate, topography, and cultural legacy are examples of environmental elements that might influence a region's appeal as a travel destination or as a centre for the arts. Visitors drawn to cultural tourism and the arts can be drawn to a place with a strong artistic tradition and cultural history. Every country continues to view competitiveness as a crucial problem for economic policy and industry. It takes the development of specific strategies and practical resource and capability management to achieve this competitive advantage (Camisón & Forés, 2015). The "onsite brokers", such as tour guides and attraction staff, direct, choreograph, interpret, educate, manage, and watch over tourists on behalf of their superiors to ensure the proper actions are taken, and the maximum amount of money is made. Researchers contend that locals who are not directly dependent on tourism can exert positive control over it by either supporting it or opposing it or by "controlling the behavior of tourists in subtle but effective ways," as opposed to being victims as many mainstream viewpoints would have it (Mordue, 2005). Even if the connection among environmental variables and the competitiveness of the tourist and art sectors is complicated and multidimensional, it is undeniable that environmental issues can greatly impact the development and success of these vital businesses.

H1: There is a positive relationship among environmental factors and tourism information systems.

The tourism of the future is "new tourism". Flexibility, segmentation, and more real-world travel experiences define it. Additionally, it is distinguished by a push for the

management and organization of the tourism sector on a diagonal basis. Implementing these strategies successfully will place tourist destinations firmly in the camp of new tourism. Tourism that is sensitive to the environment and the people of the country; sustainable tourism; tourism that can transform tourism-dependent and vulnerable island economies into viable entities (Poon, 1994). Tourist expenditure is the primary market variable in profitability analysis. Concerning the rising complexity of today's markets, this article tries to analyze this expenditure in a cross-sectional dimension to look for those traits that define various tourist profiles according to expenditure levels. The proper statistical and economic techniques are required to carry out such a study in a disciplined manner (Aguiló Perez & Juaneda, 2000).

H2: There is a positive relationship among market trends and tourism information systems.

Growing international competition is a result of this tendency. As a result, these countries are working harder to develop fresh approaches to draw tourists. As a result, there is fierce competition in the travel and tourism sector, and only the most competitive destinations have a chance of expanding (Kumar & Dhir, 2020). The global marketplace is incredibly cutthroat. When trying to influence visitor demand through advertising, the majority of developing countries will find themselves at a financial disadvantage compared to established countries as they seek to enter the market or expand their portion of it (Jenkins, 1980).

H3: There is a positive relationship among socio-economic factors and tourism information systems.

The purchasing choice made by tourists has certain special characteristics: it is an investment with no apparent rate of return, and the purchase is frequently prepared and planned using savings accumulated over a sizable period. In other words, a vacationer will spend money on an intangible satisfaction without expecting a material or financial return (Brunt, 2001). A transaction in which two or more parties (organizations or people) provide and receive something of value is what is referred to as a "consumer behavior" process of the significance of the psychological processes that consumers go through before, during, and after purchases. Marketing professionals would benefit from and find it valuable to have a conceptual grasp of customer behavior to build their marketing and promotional strategies and provide higher-quality goods and services (Dixit, Lee, & Loo, 2019). Understanding and adapting to consumer behavior is crucial for these industries to remain relevant and competitive in a fast-changing marketplace, despite the complicated and dynamic relationship among consumer behavior and the competitiveness of the tourist and art industries.

H4: There is a positive relationship among consumer behavior and tourism information systems.

H5: Consumer behavior positively mediates the relationship among environmental factors and tourism information systems.

H6: Consumer behavior positively mediates the relationship among market trends and tourism information systems.

H7: Consumer behavior positively mediates the relationship among socio-economic factors and tourism information systems.

H8: Government policies positively moderate the relationship among consumer behavior and tourism information systems.

By adding pertinent theoretical frameworks, the study of the structure model of competitive variables in the performing arts and tourism sectors in Anhui province can further enhance its arguments and hypotheses section. Among these frameworks are institutional theory, economic theory, consumer behavior theories, diffusion of innovation theory, trend analysis, place attachment theory, cultural tourism theory, theory of planned behavior, value-attitude-behaviour model, and theories of policy implementation. These theories can offer theoretical underpinnings to support the connections between economic considerations, market trends, environmental factors, consumer behavior, governmental policies and industry competitiveness. By utilizing these ideas, the research may better comprehend how these elements interact and affect the competitiveness of the performing arts and tourism industries, resulting in a more solid theoretical foundation for the study. As a result, the study's structure, which is depicted in **Figure 1**, was constructed based on the literature analysis and discussion presented above.
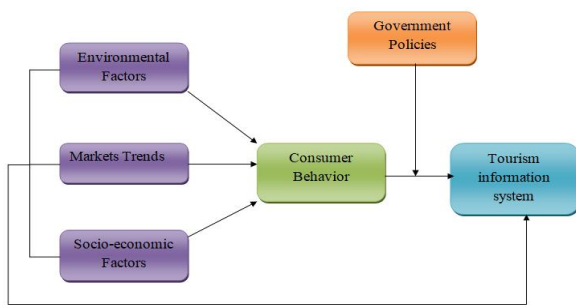

Figure 1. Conceptual Framework

METHODOLOGY

PLS-SEM with Smart PLS 3.0 is used to explore how demographics and problems may be affected. The next step involves analyzing scale accuracy to determine a measurement model's reliability and validity. We evaluate reliability using AVE, composite reliability, Cronbach's alpha, and validity using an HTMT ratio. The examination of a structural model is then done to look into a correlation among variables. The study uses a survey method to collect information from 300 tourists at well-known tourist locations in the Anhui province of China, including Zhiyuan Temple,

Tunxi Ancient Street, Huangshan's granite peaks and twisted pines, and Wancuilou Museum. Data collection is done via a structured questionnaire. Out of 350 questionnaires, 300 were considered for statistical analysis because 50 questionnaires were not filled. Empirical tests of our working hypothesis were carried out using a Structural Equation Model (SEM) with Partial Least Square (PLS).

Measures: Through the use of a structured questionnaire, data is gathered. The study items have been taken from as tourism and art industry (Richards, 2011), environmental factors (Krippendorf, 1982), markets trends (Aguiló Perez & Juaneda, 2000), socio-economic factors (Chen, 2023), consumer behavior (Cohen, Prayag, & Moital, 2014) and government policies (Yang et al., 2008). A data-collecting instrument was devoted to assessing a construct used in a study. A questionnaire contains 30 items. Researchers most strongly suggested employing a 5-point Likert scale that spans from "strongly agree" to "strongly disagree," because it would reduce the level of discomfort among patient responders while also boosting response rate and answer quality (Sachdev & Verma, 2004).

DATA ANALYSIS

Measurement Model: For estimation and analysis of reliability and validity, a measurement model is used (Hair Jr et al., 2014). For measuring the internal consistency of variables, composite reliability is used, and for measuring the reliability of elements, outer loading is used. A connection among variables is said to be normal when the reliability and validity of this construct have been established or met (Peter & Churchill, 1986). With the aid of Smart PLS 3.0, a measurement model's PLS-SEM analysis has been completed (Avotra et al., 2021; Nawaz, Chen, & Su, 2023; Sandra Marcelline et al., 2022). The results of the validity, reliability, and factor loading tests performed on the items used to develop a PLS measurement model are shown in **Table 1** and **Figure 2** respectively. Cronbach's alpha, which gauges an item's internal consistency, must typically be 0.70 or higher (Xiaolong et al., 2021; Yingfei et al., 2021). For the selected variables, Cronbach's correlation coefficient alpha and CR values were both higher than 0.70. This proved acceptable reliability and established convergent validity because the average variance extracted (AVE) values for discriminant validity were greater than 0.50 (Fornell& Larcker, 1981). Our findings demonstrated that 0.6, 0.7, and 0.5 values for Cronbach's alpha, CR, and AVE for all of the aforementioned measures were acceptable (Hair Jr, et al., 2014).

Table 1. Construct Reliability and Validity

	Items	Outer Loading	Cronbach's Alpha	Rho_a	Composite Reliability	Average
Consumer Behavior	CB1	0.826	0.769	0.829	0.845	0.538
	CB2	0.806				
	CB3	0.331				
	CB4	0.822				
	CB5	0.757				
Socio-economic Factors	SEF1	0.603	0.771	0.775	0.846	0.526
	SEF2	0.708				

|	Items	Outer Loading	Cronbach's Alpha	Rho_a	Composite Reliability	Average
	SEF3	0.779				
	SEF4	0.757				
	SEF5	0.763				
Environmental Factors	ENF1	0.702	0.762	0.786	0.838	0.514
	ENF2	0.802				
	ENF3	0.779				
	ENF4	0.754				
	ENF5	0.508				
Government Policies	GP1	0.667	0.77	0.772	0.842	0.517
	GP2	0.687				
	GP3	0.746				
	GP4	0.751				
	GP5	0.741				
Market Trends	MT1	0.58	0.804	0.816	0.866	0.567
	MT2	0.779				
	MT3	0.781				
	MT4	0.836				
	MT5	0.764				
Tourism Information System	TIS1	0.759	0.745259	0.813	0.8545	0.544
	TIS2	0.774				
	TIS3	0.821				
	TIS4	0.748				
	TIS5	0.743				
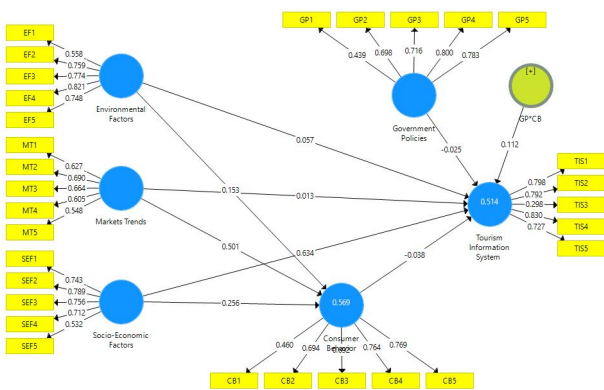
Figure 2. Measurement Model

Discriminant Validity

Discriminant validity was produced by comparing the correlation among a latent variable and the square root of the average. As a general rule, it is advised to evaluate the discriminant validity of the average variance retrieved with a score of 0.50 or higher. A square root of the average must be higher than the value of latent variables to indicate

discriminant validity (Ab Hamid, Sami, & Mohmad Sidek, 2017). If an HTMT value of 1, which indicates that the null hypothesis has been accepted, is obtained, it is shown that there is no discriminant validity (Sarstedt, Ringle, Smith, Reams, & Hair, 2014). We carried out a structural route analysis after confirming the criteria for the reliability and validity of all variables. We did this because we concluded that structural path analysis was required. Moreover, the HTMT values were lower than one, supporting the discriminant validity (Avotra et al., 2021).

This study used discriminant validity to ensure the external coherence of a model, comparing latent variables as given in **Table 2** to determine discriminant validity. Thus, in summary, it gives a variables' AVE as follows: Tourism and art industry (TAI) 0.734, Environmental factors (ENF) 0.725, Markets trends (MT) 0.717, Socio-economic factors (ECF) 0.719 Consumer behavior (CB) 0.753 and Government policies (GP) 0.717. **Table 2** demonstrates that AVE's square root has been higher than a latent variable correlation, demonstrating sufficient discriminant validity. Based on results from earlier research, this study clarified a framework and showed relationships among factors.

Table 2. Discriminant Validity (HTMT)

	Consumer Behavior	Socio-economic Factors	Environmental Factors	Government Policies	Markets Trends	Tourism Information System
Consumer Behavior	0.734					
Socio-economic Factors	0.422	0.725				
Environmental Factors	0.696	0.615	0.717			
Government Policies	0.491	0.955	0.656	0.719		
Markets Trends	0.519	0.655	0.624	0.674	0.753	
Tourism Information System	0.519	0.863	0.387	0.498	0.536	0.717

Structural Equation Model

Structural model route coefficients that show a hypothesized link were discovered to be statistically positive through the use of a PLS-SEM bootstrapping technique. According to empirical evidence, a PLS-SEM evaluation of consumer behavior is a powerful predictor of psychological well-being, as indicated in **Table 3** and **Figure 3**, which display route correlations and testing choices for the hypothesis. **Table 3** summarizes the findings of the researchers came to.

Table 3. Tested Hypothesis

|	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	F Square	R Square
Consumer Behavior ->Tourism Information System	-0.463	-0.473	0.106	4.374	0	0.039	
Socio-economic Factors -> Consumer Behavior	0.435	0.434	0.081	5.39	0	0.239	
Socio-economic Factors->Tourism Information System	0.597	0.594	0.07	8.539	0	0.372	
Environmental Factors -> Consumer Behavior	0.357	0.36	0.075	4.774	0	0.161	0.383
Environmental Factors ->Tourism Information System	0.436	0.451	0.122	3.576	0	0.031	
Government Policies ->Tourism Information System	0.156	0.157	0.076	2.052	0	0.024	
Markets Trends -> Consumer Behavior	0.569	0.569	0.569	0.569	0.569	0.569	
Markets Trends ->Tourism Information System	0.569	0.569	0.569	0.569	0.569	0.383	
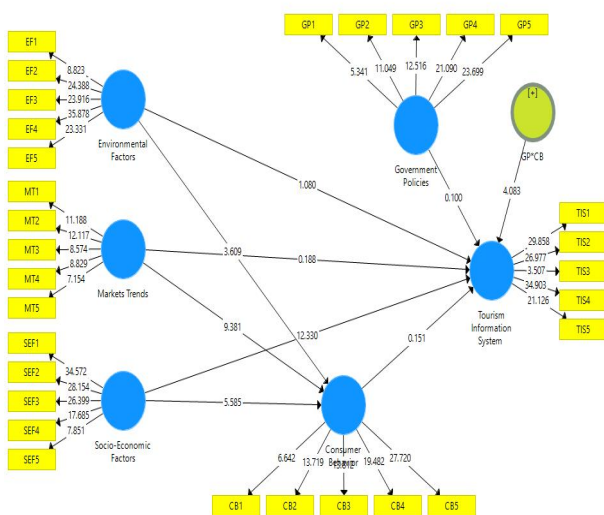
Figure 3. Structural Model

According to the findings, **Table 4** shows the results of the hypothesis. According to the findings, there is a statistically positive connection among socio-economic factors and tourism information systems (t=8.539, p=0.000). Therefore, hypothesis 1 is permitted. According to the findings of a PLS-SEM analysis, there is a positive association among consumer behavior and tourism information system(t=4.374, p=0.000). As a result, the study's second hypothesis was shown to be confirmed statistically. Environmental factors and consumer behavior are statistically positively related (t=4.774, p=0.000). Therefore, the third hypothesis is permitted. The significance of connections that exist among socio-economic factors and consumer behavior (t=5.390, p=0.000) was a subject of a fourth hypothesis that was investigated in this research; hence, a fourth hypothesis is supported. There is a statistically positive connection among environmental factors and tourism information systems (t=3.576, p=0.000). Therefore, the fifth hypothesis is permitted. The significance of connections that exist among government policies and tourism information systems (t=2.052, p=0.000) was the subject of a sixth hypothesis that was investigated in this research; hence, a sixth hypothesis is supported. There is a statistically positive connection among market trends and Consumer Behavior (t=0.569, p=0.000). Therefore, the eighth hypothesis is permitted. The significance of connections that exist among market trends and hypotheses is permitted. The significance of connections that exist among government policies and tourism information systems (t=0.569, p=0.000) was the subject of a ninth hypothesis that was investigated in this research; hence, a sixth hypothesis is supported.

Mediation Analysis

The hypothesized indirect association among the variables is established in mediation analysis. The indirect impacts of prospective factors are examined via bootstrapping. Bootstrapping is one of the most extensive and successful methods for evaluating a mediation effect, which is gaining more attention from Zhao, Lynch Jr, and Chen (2010). A calculated value (VAF=1.809) confirmed a partial mediating role of consumer behavior in a relationship among environmental factors and tourism information systems (Hair et al., 2021). A calculated value (VAF=1.920) confirmed a partial mediating role of consumer behavior in a relationship among socio-economic factors and tourism information systems (Hair et al., 2021). A calculated value (VAF=1.856) confirmed a partial mediating role of consumer behavior in a relationship among market trends and tourism information systems (Hair et al., 2021). As a result, a study's findings showed that mediating hypotheses (H5, H6, and H7) are accepted.

Table 4. Mediation Analysis

	Original Sample	T Statistics	P Values	VAF	Type of Mediation
Socio-economic Factors -> Consumer Behavior ->Tourism Information System	0.068	1.92	0	1.92	Partial
Environmental Factors -> Consumer Behavior ->Tourism Information System	0.056	1.809	0	1.809	Partial
Markets Trends -> Consumer Behavior ->Tourism Information System	0.59	1.856	0	1.856	Partial

Moderation Analysis

The next step was to look at how performance assessment influenced the direct path linkages within the central model. As stated, the moderators can be either qualitative or quantitative variables (Fiedler & Sivo, 2015). An interaction effect is the most popular method for studying the moderating effect in structural models, while there are other approaches. In the structural route model, this also serves as a moderating impact with a new structural relationship (Fan et al., 2016). If a substantial change from zero (that is, the null hypothesis is not supported) it reflects moderation (Fiedler & Sivo, 2015). **Table 5** demonstrates the result of the moderation analysis. Government policies positively moderate the relationship among consumer behavior and tourism information system (**Figure 4**).

Table 5. Moderation Hypothesis

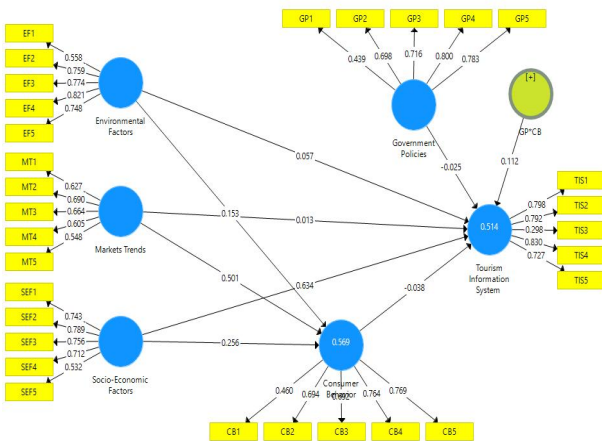|	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
GP*CB ->Tourism Information System	0.048	0.047	0.038	1.267	0.014

Figure 4. Government Policies Positively Moderate the Relationship Among Consumer Behavior and Tourism Information System

From various statistical methods and instruments that are employed to generate statistical relationships, the analysis discusses the relationship among variables. The Multicollinearity Test uses Tolerance and VIF, Composite Reliability and Validity, Discriminant Validity (HTMT), Hypotheses, Measurement Model, Structural Model, Moderation, Evaluation of R-square, and Evaluation of Effective Size by using smart PLS were all included in the detailed analysis that was presented. The next section will include the limitations, application implications, conclusion, and future course of action based on the discussion of these results.

DISCUSSION

The first hypothesis of the study stated a positive relationship among socio-economic factors and Tourism information systems. According to research, socio-economic factors and tourism information systems are positively related. The increase in tourism must be supported by improvements in convenience, accommodation, food production, creative malls, entertaining arena and other entertainment places. Financial assets must be available in sufficient quantity for all tourist-related activities, and other linked economic sectors must also produce more effectively and sustainably. Additionally, human capital must be enhanced so that tourism may grow and be sustained (Chen, 2023). Thus, H1 is accepted.

The second purpose of the study was to investigate the relationship among market trends and tourism information systems. Yes, there is a strong connection among market trends and Tourism information systems. Consumer behavior in the context of hospitality and tourism studies refers to how visitors and guests make purchases. Thomas Cook was the first to popularize mass tourism as a result of the industrial revolution. He arranged packaged trips and excursions across Europe in the 19th century. Today's hospitality and tourism sector includes establishments that provide hotels, events, parks, hauling, cruise, tour agencies, and food services (Dixit et al., 2019). For destinations and companies that can satisfy these expectations, changes in consumer attitudes and behavior, such as a rise in interest in sustainable and responsible tourism, may open up new opportunities. Therefore, H2 is accepted.

The third aim of the study was to investigate the relationship among environmental factors and Tourism information systems. Consumer choice is often constrained as a result of restricted competition, which lessens the incentive for businesses to take market-oriented actions. As a result, it is asserted that managers in highly regulated industries will downplay the significance of market

orientation and be less likely to invest in acquiring the necessary skills (Qu et al., 2005). The nature of tourism itself also contributes to the creative growth of tourism output. The growing competition encourages businesses, as it does in many other service sectors, to migrate up the value chain and develop new sources of value. This dynamic is also visible in the growing supply of cultural goods, which has frequently outpaced consumer demand in the context of cultural tourism (Richards, 2011). These studies are aligned with the findings of our results. Thus, based on the above discussion, H3 is accepted.

The fourth objective of the study was to investigate the association among consumer behavior and Tourism information systems. To understand this behavior, the study must proceed as vacationing behaviors of passengers get classier. In addition, one must examine how attitudes are developed, what drives people to make travel decisions, and how different groups influence travel behavior (Brunt, 2001). Therefore, H4 is accepted.

These findings are aligned with previous studies H5, H6 and H7 regarding mediation analysis. These hypotheses stated consumer behavior that positively mediates a relationship among socio-economic factors, market trends, environmental factors and Tourism information system. Empirical case studies in various political and economic systems can strengthen the framework by giving a practical illustration of its ideas, elements, and relationships (Safinatul, 2022). To provide relevant background information and to enhance comprehension of this empirical investigation on

the execution of tourism policy in China, the present understanding of tourism administration and tourism policymaking and implementation in China is introduced(Wang & Ap, 2013). According to the study's authors, determining a tourist destination's competitiveness involves a difficult procedure of systematic indicator analysis. The analysis of the competitiveness of the tourist sector has taken several elements into account. They consist of direct and indirect elements that may be assessed quantitatively, such as indirect factors (the general environment) and direct factors (the tourism environment). The first step in the formation of rational decision-making is the analysis of competitiveness variables and appraisal of their influence (Kriščiūnas & Greblikaitė, 2007). These studies are aligned with the findings of our results. Thus, based on the above discussion, H5, H6, and H7 are accepted.

This finding is aligned with previous studies H8 regarding moderation analysis. This hypothesis stated that government policies positively moderate the relationship among consumer behavior and tourism information system (Safinatul, 2022). Art that engages with the tourism industry as it develops is not just referred to as "Commercial Art." Despite having an impact that draws attention, especially that of tourists, art will still have a purpose as a means of personal expression. The art that can function as a tourism medium is truly covered by that last criterion. Any attention is paid to art being packaged for tourist attractions (Wahyono & Hutahayan, 2020).

Table 6. Summary of Hypotheses

Hypotheses	Decision
There is a positive relationship among environmental factors and tourism information systems.	Accepted
There is a positive relationship among market trends and tourism information systems.	Accepted
There is a positive relationship among socio-economic factors and tourism information systems.	Accepted
There is a positive relationship among consumer behavior and tourism information systems.	Accepted
Consumer behavior positively mediates the relationship among environmental factors and tourism information systems.	Accepted
Consumer behavior positively mediates the relationship among market trends and tourism information systems.	Accepted
Consumer behavior positively mediates the relationship among socio-economic factors and tourism information systems.	Accepted
Government policies positively moderate the relationship among consumer behavior and tourism information systems.	Accepted

CONCLUSION

In conclusion, government policies can have a positive impact on the ethical structure of the Tourism information system in the Anhui province of China. By promoting market trends and promoting socio-economic and environmental factors for tourism, tourists can help industries for development and promote positive and accurate representations of tourism management in Anhui province, Chinese. Immensely researched topics in the field of tourism are consumer behavior, and our review did not account for the variety of contributions in other tourist journals. In addition, there are additional pertinent ideas and influences (such as the alleged shift to an "experience economy" in Anhui province). Various strategies to develop distinctive places, such as the promotion of creative enterprises, creative cities, and the creative class, can also be

related to the growth of creative approaches to tourism. Overall, this study demonstrates the complexity and diversity of these characteristics and the significance of taking them into account when creating successful policy interventions to support the competitiveness of the performing arts and tourist industries in Anhui province.

IMPLICATIONS

Theoretical Implications

There are various theoretical implications to the study of the structure model of competitive variables in the Anhui province tourism information system. By highlighting the functions of socio-economic factors, market trends, environmental factors, and consumer behavior as mediators of the relationship among governmental policies and

information system competitiveness, it first contributes to the literature on the drivers of industrial competitiveness. The study offers a more nuanced picture of the complex and dynamic nature of industrial competitiveness by exploring how these elements interact. Second, the study emphasizes how crucial it is to take into account government policies as a moderator of this link. The study highlights the necessity for policy interventions that are specifically suited to the unique circumstances of the business by demonstrating how government policies can influence how these mediators affect industry competitiveness. Third, the study has applications for decision-makers in government and business. The report provides a framework for developing targeted policy interventions to assist growth and development in the tourism and performing arts industries by outlining the critical variables that influence information competitiveness in Anhui province.

Practical Implications

For business stakeholders and policymakers, the study of the structure model of competitive variables in the performing arts and tourism sectors in Anhui province has various practical ramifications. Firstly, the study's findings show that when formulating policies and interventions targeted at promoting sector growth and development, policymakers should take a variety of socio-economic, market, environmental, and consumer behavior into consideration. Examples of policies that may be particularly effective in boosting demand and competition in the sector are those that assist the growth of cultural institutions or promote sustainable and responsible tourism. Secondly, the study also emphasizes the significance of effective governance and regulation in fostering industry competitiveness. The relationship among the various elements and information system competitiveness can be positively moderated by government regulations; therefore decision-makers should work to provide a regulatory framework that encourages innovation and expansion in the sector. Thirdly, the study emphasizes how crucial it is to comprehend customer behavior to promote industry competitiveness. Industry participants should work to create goods and services that cater to consumers' evolving requirements and tastes, especially in reaction to shifting market trends and technology advancements.The practical ramifications of this study generally point to the need for stakeholders in the sector and policymakers to adopt a comprehensive strategy to support expansion and development in the tourism and performing arts sectors in Anhui province, taking into account the intricate and multifaceted factors that affect industry competitiveness.

LIMITATIONS OF THE STUDY

There are some constraints to take into account, even though the research on the structure model of competitive forces in the tourism industries in Anhui province offers useful insights. The study may not be generalized able to other regions or industries because it solely examined the information system and tourism sectors in Anhui province. Depending on the particular situation and industry in issue,

different factors may affect information system competitiveness. The study relied on self-reported information from policymakers and industry stakeholders, which could be biased or have social desirability implications. Future studies can benefit from examining additional variables that might be pertinent to the tourist sectors. These restrictions imply that greater research is required to completely comprehend the elements that influence information system competitiveness in the tourism sectors and to create efficient policies and interventions to promote industry growth and development.

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