

# THE MODERATING EFFECT OF ECONOMIC VIABILITY BETWEEN SUSTAINABLE TOURISM DIMENSIONS AND TOURIST SATISFACTION IN ETHIOPIA USING PARTIAL LEAST SQUARES

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## ABSTRACT

Visitors' contentment is essential to the development of sustainable tourism and economic development. In order to examine the moderating role of economic value between environmental sustainable tourism, a destination's local prosperity, socio-cultural issues, and the sustainability and satisfaction of tourists, this study was conducted using empirical research design. 382 valid replies for the current investigation were used for further analysis. Overseas travellers were asked to fill the questionnaires at Harar, Gondar, Bahardar and Dire Dawa that are the Ethiopia's most popular tourist destinations. The proposed hypotheses were tested using partial least squares (PLS) after careful screening of the data. Results from this study show that economic ability is an important moderator of local prosperity, environmental sustainability, socio-cultural stability and tourist satisfaction. As a result, the nation's economy must be strengthened in order to provide a healthy environment and a positive visitor experience, both of which appear to be directly linked.

**Keywords:** Economic Viability; Environmental Sustainability; local prosperity; Partial Least Square; Tourist Satisfaction.

**El efecto moderador de la viabilidad económica entre las dimensiones del turismo sostenible y la satisfacción del turista en Etiopía usando mínimos cuadrados parciales**

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## RESUMEN

La satisfacción de los visitantes es esencial para el desarrollo del turismo sostenible y el desarrollo económico. Para examinar el papel moderador del valor económico entre el turismo ambiental sostenible, la prosperidad local de un destino, los problemas socioculturales y la sostenibilidad y satisfacción de los turistas, este estudio se realizó utilizando un diseño de investigación empírico. Se utilizaron un total de 382 respuestas válidas para la investigación actual para un análisis posterior. Se pidió a los viajeros extranjeros que cumplieran los cuestionarios en Harar, Gonder, Bahirdar y Dire Dawa, que son los destinos turísticos más populares de Etiopía. Las hipótesis propuestas se probaron utilizando mínimos cuadrados parciales (PLS) después de una cuidadosa selección de los datos. Los resultados de este estudio muestran que la capacidad económica es un moderador importante de la prosperidad local, la sostenibilidad ambiental, la estabilidad sociocultural y la satisfacción turística. Como resultado, la economía de la nación debe fortalecerse para brindar un ambiente saludable y una experiencia positiva para los visitantes, los cuales parecen estar directamente relacionados.

**Palabras clave:** Viabilidad económica; sostenibilidad del medio ambiente; prosperidad local; Mínimos Cuadrados Parciales; satisfacción del Turista.

## 1. INTRODUCTION

Since 2005, the World Trade Organization and the United Nations Environment Program (UNEP) laid up a framework for integrating economic viability with sustainable tourism (International Labour Organization, 2010; Mitchell and Ashley, 2010; OECD, World Tourism Organization, 2013; Go and Kang, 2023). UNEP and WTO enlighten us that tourism takes into account current and future economic, social, as well as environmental repercussions in order to meet the demands of visitors, tourism businesses and the environment (Nelson, Butler, and Wall, 2007; Hsieh, Park, and Huh, 2016; UNEP; UNWTO, 2005). Travel and tourism, which is one of the fastest-growing businesses, has a significant impact on the socioeconomic growth of all stakeholders. To alleviate poverty, sustainable tourism provides a means to generate money for host communities, steady employment, and opportunities to learn about the social services that could help nations alleviate poverty ((Liu, Lan, Chien, Sadiq, and Nawaz, 2022; Yiu and Saner, 2011; Yiu and Saner, 2011). Environmentally and socially sustainable tourism (ST) aims to maximize the utilization of environmental and socio-cultural authenticity of host nations without compromising inter-generational fairness or sustainability (Hsieh, Park and Huh 2016).

STD, in contrast to other forms of tourism, necessitated the participation of well-informed stakeholders and political leadership in order to achieve inclusive participation, unanimity development, and an increase in stakeholder awareness. Positive and beneficial results can be achieved if tourism is well-managed. This ensures the satisfaction of visitors and allows tourists to experience a unique destination (Razovic, 2013 M., *et al.*, 2022). A two-edged sword, ST has been deemed a blessing and a curse depending on how it is managed by host countries because it is a continuous process that demands constant mon-

itoring of its multidimensional affects and development of the essential safety measures when required (Swarbrooke, 1999; Lee and Chang, 2008; Hsieh, Park, and Huh, 2016).

ST helps to preserve biological processes, constructed and living cultural assets, and traditions, which in turn affects viable economic development, as demonstrated by Hughes and Carlsen (2010). Aside from that it helps to acquire the cooperation of the government and non-governmental organizations, tourists, and others (Zhuang, Yang, Razzaq, and Khan, 2022; Hughes and Carlsen, 2010). ST has been shown to have a major impact on the long-term competitiveness of locations and businesses that support the sectors it supports (Misganaw, 2015; Hussain, Ali, Ragavan, and Manhas, 2015). As a result, by encouraging visitors to remain longer, the gift serves to increase the economic success of the host city (Fan, Zhong, and Zhang, 2012; Fernandez and Sanchez, 2016; Achmad and Yulianah, 2022; Huang, Weng, and Bao, 2022).

In order to ensure employment quality, ST expansions increase the local economy's capacity to create new jobs and raise wages (Deng and Bender, 2007; Fan, Zhong, and Zhang, 2012; Seyedabolghasemi, Kilic, Avci, Eluwole, and Lasisi, 2022). In this way, an equitable distribution of socioeconomic advantages to the host community and the recipient community can be achieved (Margherita, 2013; Miller, 2001; Razovic, 2013). Tourism asset management and proper usage can be improved by encouraging ST practices regardless of the country's wealth or resources (Thapa, 2013; Janusza and Bajdora, 2013). The fact that ST deals with a wide range of issues and is ever-evolving shows that it still necessitates significant attention and contributions from both practitioners and scholars as well as institutions (Miller, 2001; Deng, Qiang, Walker, and Zhang, 2003; Janusza and Bajdora, 2013; Weaver D. B., 2022).

There was less emphasis on empowering local communities and enhancing their well-being through sustainable tourism by early researchers in the least developed countries (Andereck, 2009; Hsieh, Park, and Huh, 2016). It has been reported by the World Tourism Organization (WTO) that there is a gap on inviting local communities in planning and decision making relevant to management and future development of destinations in most sub-Saharan countries, but it is expected to maintain high tourists' satisfaction with meaningful experience and optimal use of an environmental asset by providing a significant benefit to the local communities.

Promoting ST practices, according to Hsieh, Park, and Huh (2016), improves visitors' satisfaction, which in turn affects their post-visit reactions. A satisfied visitor is a sign that the host nation is making an attempt to construct a sustainable tourism business that could potentially contribute to the national economy, as early studies have shown (Adamnesh, Oucho, and Zeitlyn, 2014; Andereck, 2009; Cottrell, Duim, Ankersmid, and Kelder., 2004). According to other studies, ST's main goal is to make tourists happy so that they will recommend the location to their friends and family back home and to people all over the world (Schianetz and Kavanagh, 2008; Hsieh, Park, and Huh, 2016). As a result, ensuring the satisfaction of visitors is essential to ensuring the sustainability and continuity of economic operations and, ultimately, the reduction of poverty in the host communities (ILO, 2010; Lee and Chang, 2008) There has been minimal research on how economic viability is linked to environmental sustainability, local prosperity and sociocultural aspects of sustainable tourism. Nonetheless (Lee and Chang, 2008; Janusza and Bajdora, 2013).

## 2. LITERATURE REVIEW

### 2.1. Introduction

Janusza and Bajdora (2013) defined tourism as a concept by numerous scholars, practitioners and institutions. Various stakeholders, including locals and tourists, as well as companies and governments and non-governmental organizations (NGOs), interact when it comes to tourism (Andereck, 2009; Janusza and Bajdora, 2013). Additionally, it includes the promotion and sponsoring of activities to attract tourists and other visitors to a particular locale (Macintosh and Goeldner, 2005; Misganaw, 2015). The world's tourism industry is one of the most rapidly growing in terms of both the economy and society (Miller, 2001). Ethiopia is one of the underdeveloped countries where it has increased its contribution (Misganaw, 2015; Adamnesh, Oucho, and Zeitlyn, 2014). Developing and established countries alike are benefiting from the sector's rapid expansion and high level of profitability (ILO, 2010; Lee and Chang, 2008; UNCTAD, 2007).

According to Misganaw (2015; Bramwell, 2011; United Nations World Tourism Organization/European Commission 2013), the tourism industry is a crucial engine of socio-economic growth worldwide. 7.6 trillion dollars, or 9.8 percent of worldwide economic activity, was generated by tourism in 2014, which boosted the global economy (Schianetz and Kavanagh, 2008). In terms of employment prospects, tourism and related industries created almost 277 million jobs and 6-7 percent (indirect) or one out of eleven (Hsieh, Park, and Huh, 2016; Wiwattanakantanga and To-ima, 2014).

According to Adamnesh, Oucho, and Zeitlyn (2014) and Misganaw (2015), tourism is one of Ethiopia's fastest-growing industries. This sector accounts for 8.5 percent of the country's GDP and is increasing at a rate of 15 percent each year. The sector is viewed as a tool for fighting poverty in developing countries (ILO, 2010; OECD, WTO, and UNWTO, 2013; Adamnesh, Oucho, and Zeitlyn, 2014). The development of this method was, however, not in accordance with current procedures (Adamnesh, Oucho, and Zeitlyn, 2014).

In the case of eco-friendly tourism, travelers are encouraged to spend more money and stay longer in a particular location (Holden, 2008; Lee and Chang, 2008; Nelson, Butler, and Wall, 2007; Okazaki, 2008). In the words of Okazaki (2008), sustainable tourism is a form of tourism that is both environmentally and socially responsible. Tourists who are drawn to these areas tend to be more generous with the money they spend since it motivates them to spend more time in the area (Raymond and Brown, 2007; Bramwell, 2011).

### 2.2. The development of sustainable tourism

The preservation of biodiversity and cultural assets can be achieved through sustainable tourism, which aims to create a symbiotic relationship between environmental, socio-cultural, and economic aspects of a location. In the current literature, however, it is the least explored but also the most inconsistently described and clashing (Wiwattanakantanga and To-ima, 2014). According to a number of studies, sustainable tourism is yet to attract substantial attention from analysts who have been devoted to the concept of discipline since the beginning (Thapa, 2013; Hsieh, Park, and Huh, 2016; Wiwattanakan-

tanga and To-ima, 2014). These things obstruct the multiple advantages that sustainable resources can provide (Razovic, 2013; Lee and Chang, 2008).

Depending on how development is managed, tourism can have a good impact (Hsieh, Park, and Huh, 2016; Thapa, 2013). As a whole, the industry has a positive impact on the local economy (Harris, Griffin, and Williams., 2001). Attracting investment, opening doors, and optimizing biodiversity conservation are all possible benefits of carefully managed destinations, as Totten (2016) argued.

### **2.3. Tourist satisfaction**

Hsieh, Park, and Huh (2016) shed light on the relationship between tourists' satisfaction before and after a trip (UNWTO/ILO, 2013) and the experiences they have once they arrive. Tourists will be delighted if the actual conditions of a given destination exceed their expectations, whereas dissatisfaction will ensue if their expectations are greater than the reality on the ground (Janusza and Bajdora, 2013; Hsieh, Park, and Huh, 2016). According to Raymond and Brown (2007), satisfied customers can boost the country's image, which in turn increases the country's economic value. When it comes to Ethiopia's sustainable tourism development, positive responses from tourists will help ensure long-term growth and positive experiences, especially since sustainable tourism is committed to making a low impact on local communities, the environment, and focusing on future employment for local people (Misganaw, 2015).

When it comes to developing sustainable tourism, you can't do it without first making sure that visitors are happy (Harris, Griffin, and Williams., 2001; Holden, 2008; Razovic, 2013). Studies have shown that these two concepts work best when used in conjunction with one another (Miller, 2001; Okazaki, 2008). Because of this, destination managers and planners had to look for long-term strategies for sustainable tourism development that would create a distinct identity for the destination and provide a lucrative opportunity for various supporting businesses (Hsieh, Park, and Huh, 2016). As noted by Swarbrooke (1999), destination managers should raise tourists' awareness and promote ST practices in order to improve tourist satisfaction and ensure an eloquent visitor experience. The result also well supported by other scholar through enlighten how sustainable tourism development implementation help visitor experience improvement (Thapa, 2013; Miller, 2001; Okazaki, 2008; Razovic, 2013).

Economic viability, prosperity, ability to ensure social equity; fair distribution of socio-economic benefits; competitiveness of the host destination will also affect tourist satisfaction, which potentially determines the success of a location (Hsieh, Park, and Huh, 2016; Lee and Chang, 2008; Margherita, 2013). When visitors aren't safe, they may miss out on a multidimensional benefit for the development of the sectors that support them, such as ventures that support the sector's growth and increase job opportunities; local prosperity; and overall destination economic viability (Holden, 2008; Hsieh, Park, and Huh, 2016; Yiu and Saner, 2011; Harris, Griffin, and Williams., 2001; Schianetz and Kavanagh, 2008).

The promotion of a particular destination relies heavily on the estimation of tourist satisfaction through evaluation of economic viability, prosperity, socioeconomic well-being, and social equity (OECD, WTO, and UNWTO, 2013; Nicholas, Thapa, and Ko,

2009). Sustainable tourism necessitates the involvement of all relevant parties, political leadership, ongoing monitoring of its effects, and public-private partnerships in order to create a destination that is truly unique (UNCTAD, 2007; Lee and Chang, 2008; UNEP; UNWTO, 2005). According to World Tourism Organization (WTO) guidelines since 2005, sustainable tourism (ST) is not yet practiced in many developing countries (Adamnesh, Oucho, and Zeitlyn, 2014; Misganaw, 2015). The principles of sustainable tourism are shown to be linked to tourists' satisfaction with a particular destination, according to some empirical evidence (Thapa, 2013; Nicholas, Thapa, and Ko, 2009; Fernandez and Sanchez, 2016; Hsieh, Park, and Huh, 2016).

Weaver and Lawton (2004) and Hsieh, Park, and Huh (2016) both show that destination managers (DMs) must look beyond tourists' awareness of a given location and their level of conciseness to understand visitors' expectations and experiences (Deng, Qiang, Walker, and Zhang, 2003). In addition, it is critical to understand visitors' preferences for destinations because it serves as a foundation for determining destination segmentation, spending patterns, and customer satisfaction (Misganaw, 2015; Hillery, Nancarrow, Griffin, and Syme, 2001).

Weaver and Lawton (2004)'s stated that sustainable tourism, helps to maintain the socio-cultural, economic viability, prosperity, and social wellbeing of the host communities, as well as opportunities for employment and income-earning opportunities. As a result, an effective ST gives local communities more power; it improves the quality of life at the destination by reducing physical and visual degradation and encouraging the conservation of natural habitats and wildlife through efficient planning and decision making (Aydin and Alvarez, 2016; Fernandez and Sanchez, 2016).

Bramwell (2011); Nelson, Butler, and Wall (2011) (2007) Many studies, including Hughes and Carlsen (2010), Raymond and Brown(2007), Nelson, Butler, and Wall(2007), Cottrell, Duim, Ankersmid, and Kelder (2004), UNCTAD(2007), and Deng and (2007a), have found that tourists who are well-informed are important agents of sustainable tourism. The fact that it acknowledges equitable resource distributions among various stakeholders shows how relevant sustainable tourism is for a particular destination. Sustainable tourism has been shown to be beneficial to a destination's economy, but further research is needed to confirm this (Razovic, 2013; Hussain, Ali, Ragavan, and Manhas, 2015; Hillery and Nancarrow and Griffin; 2001; Rozelee, Rahman and Omar; 2015; and Hillery and Nancarrow and Griffin and Syme; 2001).

Economic viability, local prosperity, quality of employment, social equity, visitor satisfaction, local control, and community well-being, cultural richness, physical integrity, biological diversity, and resource efficiency were defined by Andereck (2009) and Deng, Qiang, Walker, and Zhang (2003). In many developing countries, environmental cleanliness was not a priority. besides, Fan, Zhong, and Zhang are the three members of this group Principles of visitors' satisfaction and expenditure were not discussed in most literature (2012; Aydin and Alvarez 2016; Moyle, Weiler, and Croy, 2013).

It has been revealed that in addition to a few findings, there are significant findings differences among researchers in different countries, indicating that some dimensions are specific to the geographic location. Also, Deng and Bender (2007), Adamnesh, Oucho, and Zeitlyn (2014), ILO (2010), Lee and Chang (2008), and others have found similar results.

Overall socio-cultural, economic and environmental sustainability are major determinants of tourist satisfaction. This is shown in studies by Cottrell *et al.* (2004) as well as Fan *et al.* (2012). In addition, Aydin and Alvarez (2016) found that sustainability in economics and society has a greater impact on visitor satisfaction than sustainability in the environment. Economic viability was found by Nicholas and Thapa (2010) to be the best predictor of tourist satisfaction. According to Wiwattanakantanga and To-ima (2014), tourist satisfaction is affected by the economy, the environment, and the presence of authentic socio-cultural practices. As a result, the current study focuses on the key linkage shown in figure 1.

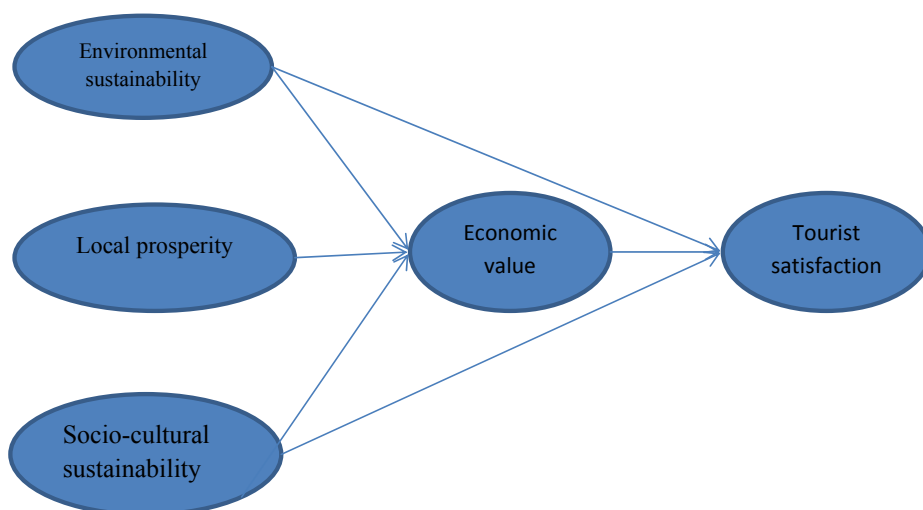
H1: Environmental sustainability affects the economic viability of a destination and visitors' satisfaction

H2: local prosperity directly affects the economic viability of a destination.

H3: socio-cultural sustainability affects economic viability and tourist satisfaction in a given destination.

H4: economic viability affects tourist satisfaction

**Figure 1**  
**CONCEPTUAL FRAMEWORK**



### 3. MATERIALS AND METHODS

The survey was aimed at tourists who travelled to Ethiopia between April and September of 2021. According to the traffic flow of tourists, three and four star hotels, four tourist sites (Hawassa, Gondar, Dire Dawa, and Harar), and a national museum (National Museum of Ethiopia) were chosen for the current study. According to the results, out of the 500 tourists who were asked to fill out the questionnaire, 432 of them returned it, which is a response rate of 86.5 percent. Saldivar explains that a good response rate is between

80 and 85 percent if the survey is conducted in person (Saldivar, 2012). In this study, the sample requirement was adequately represented by an early suggestion made by Sekaran (2009); Nunnally and Bernstein (1994; 1994; 1994; Comrey and Lee, (1992) and Morgan's formula (Saldivar, 2012; Fowler, 2002; Krejcie and Morgan, 1970).

### 3.1. Description of study area

For the current study, three desintation were selected namely, Gondar, Harar, Dire Dawa and Hawassa. Gondar is one of historic site in Ethiopian Zemene-mesafint period. A number of palace, monuments, churches and intangible heritages are found in the area. It is one of the most visited place in Ethiopia. Harar, which considered as Islamic centre of Africa is known for her building wall. Dire Dawa, the third selected place is a get for Ethiopian railway and modern commercial activities. Hawassa was selected because of its natural richness and lakes that catch millions of tourist all over the country and in the world.

**Figure 1**  
**SELECTED DESINTATION FOR THE CURRENT STUDY**



## 4. ANALYSIS AND INTERPRETATION

Validation of the current study's measurements (environmental sustainability, local prosperity and sociocultural sustainability, economic viability as moderating and satisfaction as dependent variable) was carried out using PLS-SEM. Four hypotheses were developed and tested in accordance with PLS. Using bootstrapping, the Partial Least Squares method incorporates reflective measurements that require less restrictive assumptions without normal distribution, which is also used in the current study. (Hair, Ringle, and Sarstedt, 2013).



The researcher based the model on five different concepts, including economic viability as a moderating variable, social capital, environmental sustainability, and local prosperity. Following the evaluation of the structural (inner) model between the constructs specified by the research model shown in figure1, the measurements (outer) i.e. items of sociocultural sustainability, environmental sustainability, and local prosperity were assessed.

#### 4.1. Model for measuring

Each of the study's constructs (economic viability, sociocultural sustainability, environmental sustainability, and local prosperity) was represented by the results of the outer model, which were used to test the measurement model's reliability and validity (Chin, 1998). Reflective constructs, on the other hand, are assessed using different methods than reflective constructs (Fornell and Larcker, 1981; Gefen, 2000). The measurement model assessment is divided to distinguish between reflective constructs because it contains both types of measurements in the model.

#### 4.2. Reflection-based metric

As described by Hair *et al.*,(2016) indicators' reliability and internal consistency's reliability need to be determined, as well as their convergent validity and discriminant validity. Cronbach's alpha is higher than the 0.7 threshold value suggested by Götz, Liehr-Gobbers, and Krafft, indicating that the economic value, local prosperity, employment quality, environmental sustainability, and level of tourist satisfaction measures are reliable (2010). For economic value, local prosperity, employment quality, environmental sustainability, and tourist satisfaction, the composite reliabilities range from 0.812 to 0.944, exceeding the recommended thresholds (Gefen, 2000; Fornell and Larcker, 1981; Hair, Hult, Ringle, and Sarstedt, 2016; Tenenhaus, Esposito Vinzi, Chatelin, and Lauro, 2005; Sarstedt, Ringle, Smith, Reams, and Hair, 2014).

**Table 1**  
**MEASUREMENT STATISTICS OF CONSTRUCT SCALES BASED ON REFLECTIVE INDICATORS**

Variables	Loadings	Cronbach's Alpha	rho_A	CR	AVE	VIF
<b>socio-cultural sustainability</b>		<b>0.713</b>	<b>0.807</b>	<b>0.812</b>	<b>0.526</b>	
<b>EQ1:</b> Number of job opportunity for the local residents	<b>0.752</b>					<b>1.564</b>
<b>EQ2:</b> Residents and tourists' equal access to similar heritage tourism activities	<b>0.650</b>					<b>1.332</b>
<b>EQ3:</b> Availability of maintenance and restoration funds	<b>0.875</b>					<b>1.536</b>

Variables	Loadings	Cronbach's Alpha	rho_A	CR	AVE	VIF
<b>socio-cultural sustainability</b>		<b>0.713</b>	<b>0.807</b>	<b>0.812</b>	<b>0.526</b>	
<b>EQ4:</b> Contribution of local cultural values for heritage tourism development	<b>0.687</b>					<b>1.267</b>
<b>Environmental sustainability</b>		<b>0.926</b>	<b>0.929</b>	<b>0.944</b>	<b>0.772</b>	
<b>ES1:</b> Integration of heritage tourism and the environment	<b>0.914</b>					3.823
<b>ES2:</b> : Pressure of tourist activities on fauna and flora species	<b>0.884</b>					3.303
<b>RE1:</b> Percentage of water and energy resources consumption caused by heritage tourism	<b>0.864</b>					<b>2.987</b>
<b>ES4:</b> Level of pollution (water, sound, soil, and air) due to heritage tourism	<b>0.848</b>					<b>2.860</b>
<b>ES5:</b> Efforts made to minimize damages on the environment	<b>0.883</b>					3.547
<b>Economic value</b>		<b>0.793</b>	<b>0.800</b>	<b>0.878</b>	<b>0.707</b>	
<b>EV1:</b> Level of local economic diversification due to heritage tourism	<b>0.808</b>					<b>1.458</b>
<b>EV2:</b> Seasonality level of heritage tourism	<b>0.838</b>					<b>1.888</b>
<b>EV3:</b> Amount of income to the local communities	<b>0.875</b>					<b>1.943</b>
<b>Local prosperity</b>		<b>0.856</b>	<b>0.858</b>	<b>0.903</b>	<b>0.699</b>	
<b>LP1:-</b> Variety of local products available because of heritage tourism	<b>0.865</b>					<b>2.332</b>
<b>LP2:-</b> Availability of markets for local products	<b>0.855</b>					<b>2.152</b>
<b>LP3:</b> Degree of financial leakage away from the destination	<b>0.832</b>					<b>1.989</b>
<b>LP4:</b> Adequacy of tourists' average length of stay	<b>0.792</b>					<b>1.711</b>
<b>Tourist satisfaction</b>		<b>0.867</b>	<b>0.864</b>	<b>0.904</b>	<b>0.618</b>	
<b>SA1:</b> Attractiveness of the destination	<b>0.788</b>					<b>2.124</b>
<b>SA2:</b> Hospitality of the local residents	<b>0.829</b>					<b>2.698</b>

Variables	Loadings	Cronbach's Alpha	rho_A	CR	AVE	VIF
<b>socio-cultural sustainability</b>		<b>0.713</b>	<b>0.807</b>	<b>0.812</b>	<b>0.526</b>	
<b>SA3:</b> Tourism staff treatment of tourists and local residents	<b>0.880</b>					3.403
<b>SA4:</b> Reasonability of entrance fee to attraction sites	<b>0.804</b>					<b>2.303</b>
<b>SA5:</b> Quality of information offered at attraction sites	<b>0.862</b>					<b>2.985</b>
<b>SA6:</b> Safety and security of the destination	<b>0.688</b>					<b>1.086</b>

Source: Survey, 2021.

The Indicator loadings for the measurement dimensions (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) were above the 0.6 cut-off value recommended by authors i.e. Chin (1998); Hair, Ringle, and Sarstedt (2013); Fornell and Larcker (1981). To examine the current research dimensions (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) convergent validity, as suggested by Fornell and Larcker (1981), each construct's average variance explained (AVE) was calculated. The result shows economic value, local prosperity, sociocultural sustainability, environmental sustainability, and level of tourist satisfaction values were exceed 0.50, ranging from 0.526 to 0.772.

#### 4.3. Discriminant validity

Discriminant validity was assessed based on the guideline of Fornell and Larcker (1981), to examine if a construct (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) is more strongly related to its measures than with any other constructs (Chin, 1998). Table 2 shows the correlations between constructs, where the diagonal elements are the square roots of the average variance explained (AVE). As observed in Table 2, the square root of economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction value of AVE is larger than its correlations with any other construct. Therefore, each construct shares more variance with its block of indicators than with another latent variable representing a different block of indicators (Hair, Sarstedt, Ringle, and Mena, 2012), supporting the adequate discriminant validity of the scales.

The Cross-Loadings were used to examine the discriminant validity of economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction (Fornell and Larcker, 1981; Götz, Liehr-Gobbers, and Krafft, 2010). The suggested standard is that a construct in the current research i.e., economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction should not show the same variance as any other construct that is more than

it's the average variance explained ( AVE) value. The finding proved that the observed variables in every construct indicated the given latent variable (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) confirming the discriminant validity of the model.

**Table 2**  
**FORNELL AND LARCKER CRITERION AS DISCRIMINANT VALIDITY OF THE CONSTRUCTS MEASUREMENT**

	EQ	ES	EV	LP
socio-cultural sustainability	0.725			
Environmental sustainability	0.291	0.879		
Economic value	0.180	0.311	0.841	
Local prosperity	0.277	0.388	0.584	0.836
Tourist satisfaction	0.248	0.368	0.487	0.554

Source: Survey, 2021.

Table 3 shows that the cross-loading of all observed variables (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) was more than the inter-correlations of the constructs of all the other observed variables (each item) in the model. Therefore, the findings show the cross-loadings assessment standards and provided acceptable validation for the discriminant validity of the measurement model of the current study. As a result, the suggested conceptual model is acceptable, with confirmation of adequate reliability, convergent validity, and discriminant validity, and the verification of the research model is presented in figure 1.

**Table 3**  
**CROSS LOADINGS OF CONSTRUCT**

		ES	EV	LP	SA
socio-cultural sustainability	EQ1	0.170	0.137	0.205	0.147
	EQ2	0.172	-0.003	0.050	0.108
	EQ3	0.250	0.177	0.274	0.265
	EQ4	0.252	0.134	0.188	0.145
Environmental sustainability	ES1	0.271	0.311	0.388	0.336
	ES2	0.266	0.292	0.399	0.343
	ES3	0.303	0.264	0.324	0.290
	ES4	0.225	0.247	0.304	0.327
	ES5	0.212	0.248	0.278	0.317

		ES	EV	LP	SA
Economic value	EV1	0.147	0.247	0.525	0.399
	EV2	0.158	0.262	0.445	0.328
	EV3	0.149	0.275	0.495	0.485
Local prosperity	LP1	0.264	0.346	0.468	0.461
	LP2	0.292	0.397	0.521	0.486
	LP3	0.140	0.309	0.476	0.495
	LP4	0.226	0.241	0.483	0.409
Tourist satisfaction	SA1	0.146	0.307	0.330	0.411
	SA2	0.216	0.280	0.347	0.341
	SA3	0.175	0.292	0.379	0.400
	SA4	0.239	0.246	0.332	0.365
	SA5	0.196	0.317	0.383	0.401
	SA6	0.175	0.255	0.459	0.611

Source: Survey, 2021

#### 4.4. Reflective constructs

The reflective constructs proposed for economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction were assessed using PLS. Tests of measurement quality for the proposed second-order factor model of the current research that focused sustainable tourism and its effect on visitors satisfaction should follow the same process that is used to examine the first-order factors (Chin, 1998; Henseler, Hubona, and Ray, 2016; Barclay, Thompson, and dan Higgins, 1995; Sarstedt, Ringle, Smith, Reams, and Hair, 2014). The weights of the first-order constructs (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction items) on the second-order constructs and their significance were examined (see Table 4) to identify the contribution of to each first-order construct to the second-order construct by taking Chin (1998); Hair, Hult, Ringle, and Sarstedt (2016) as it is important as they represent actionable drivers of the higher-order construct.

**Table 4**  
**OUTER WEIGHT, T- STATISTICS AND P VALUE**

2 <sup>nd</sup> order construct	Variables	Weight	T statistics	P value
socio-cultural sustainability	EQ1	0.327	91.629	***
	EQ2	0.141	176.276	***
	EQ3	0.521	58.074	***
	EQ4	0.322	38.529	***

2 <sup>nd</sup> order construct	Variables	Weight	T statistics	P value
<b>Environmental sustainability</b>	<b>ES1</b>	0.246	121.096	***
	<b>ES2</b>	0.243	120.406	***
	<b>ES3</b>	0.211	113.339	***
	<b>ES4</b>	0.220	126.547	***
	<b>ES5</b>	0.217	124.069	***
<b>Economic values</b>	<b>EV1</b>	0.409	130.825	***
	<b>EV2</b>	0.347	74.931	***
	<b>EV3</b>	0.433	103.925	***
<b>Local prosperity</b>	<b>LP1</b>	0.287	84.738	***
	<b>LP2</b>	0.320	107.149	***
	<b>LP3</b>	0.292	108.145	***
	<b>LP4</b>	0.297	99.151	***
<b>Tourist satisfaction</b>	<b>SA1</b>	0.201	174.443	***
	<b>SA2</b>	0.209	169.157	***
	<b>SA3</b>	0.219	153.276	***
	<b>SA4</b>	0.199	142.966	***
	<b>SA5</b>	0.228	161.901	***
	<b>SA6</b>	0.243	101.118	***

Source: Survey, 2021

All first-order constructs weights were significant, which means that there is empirical support for the relevance of the first-order construct for the construction of the reflective second-order constructs (economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction) as theoretically conceived, demonstrating a sufficient level of validity (Tenenhaus, Esposito Vinzi, Chatelin, and Lauro, 2005; Hair, Ringle, and Sarstedt, 2013; Urbach and Ahlemann, 2010). Moreover, the weights are higher than 0.10 for all economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction and their sign is consistent with the thresholds used in various literature (Andreev, Heart, Maoz, and Pliskin, 2009; Hair, Hult, Ringle, and Sarstedt, 2016).

The current research also regressively analysed the validity of the first-order constructs weather there are the issues of multicollinearity or not as its existence affects the model degree of acceptability with generating a none significant weight (Diamantopoulos and Winklhofer, 2001; (Hair, Ringle, and Sarstedt, 2011). The result shows, the variance inflation factor for all contrast in the study (items of economic value, local prosperity, socio-cultural sustainability, environmental sustainability) were below the threshold of 5 as the case of PLS with values varying from 1.504 to a maximum of 3.083, which is far below the common cut-off threshold of 5 for the current (Hair, Ringle, and Sarstedt, 2011; Petter, Straub, and Rai, 2007).

Nomological validity of the second-order contact was also done by analysing the level and significance between the second-order (economic value, local prosperity, socio-cultural sustainability) reflective construct and other constructs in the research model. Based on Henseler, Ringle, and Sinkovics (2009), it is expected to be strong and significant based on. Hence, the results of the current research specify that significant relationships between economic value, local prosperity, socio-cultural sustainability, environmental sustainability, and level of tourist satisfaction in the model that is consistent with underlying theories.

**Table 5**  
**HETEROTRAIT-MONOTRAIT RATIO (HTMT)**

					Internal VIF	
	EQ	ES	EV	LP	EV	SA
socio-cultural sustainability					1.132	1.103
Environmental sustainability	0.354				1.230	1.182
Economic value	0.225	0.362				1.118
Local prosperity	0.314	0.431	0.704		1.220	
Tourist satisfaction	0.290	0.406	0.570	0.630		

Source: Survey, 2021.

**4.5. Testing hypothesis**

H<sub>1</sub> :- hypothesized that environmental sustainability affects economic viability and satisfaction of tourists. The findings in Table 6 and Figure 2 confirmed environmental sustainability affects, economic viability of a destination and tourist satisfaction ( $\beta = 0.100$ ,  $T = 3.82$ ,  $p < 0.001$ ;  $\beta = 0.209$ ,  $T = 7.53$ ,  $p < 0.001$ ). Hence, H1 was robustly supported.

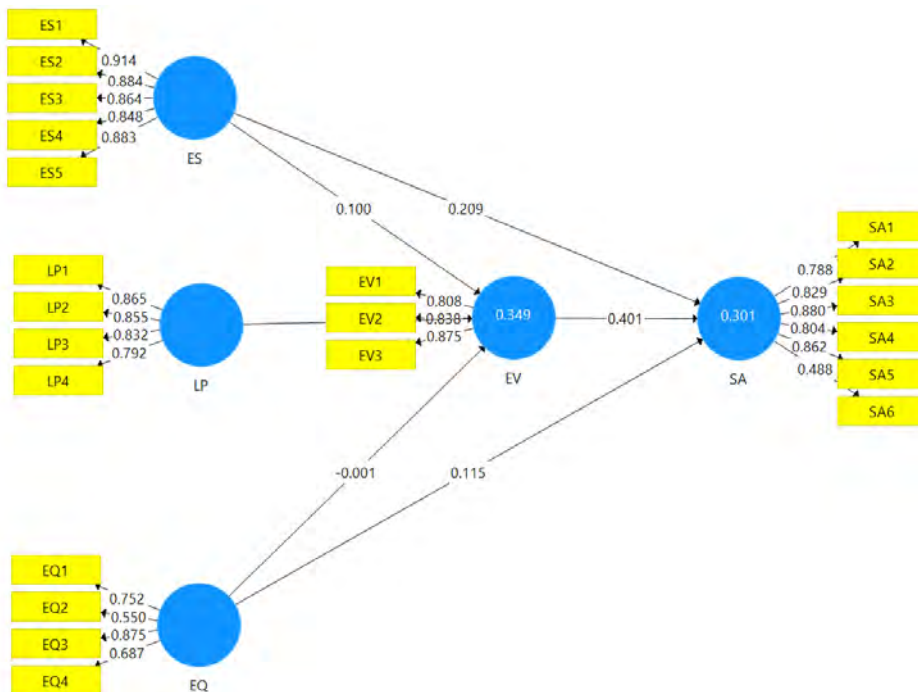
**Table 6**  
**PATH COEFFICIENT**

	Standardized estimate	T-Statistics	p -Values
Environmental sustainability -> tourist satisfaction	0.209	7.53	***
Environmental sustainability -> economic value	0.100	3.82	***
Local prosperity -> economic value	0.333	15.56	***
socio-cultural sustainability-> economic value	-0.001	-0.51	***
Socio-cultural sustainability -> tourist satisfaction	0.115	4.74	***
Economic value -> tourist satisfaction	0.401	22.12	***

Source: Survey, 2021.

The influence of the local prosperity factor on economic value was positive and significant ( $\beta = 0.333$ ,  $T = 15.16$ ,  $p < 0.001$ ), showing that H3 was supported. The effect of the socio-cultural sustainability on economic value ( $\beta = -0.001$ ,  $T = -0.513$ ,  $p < 0.001$ ), therefore supporting H4. Similarly, the influence of the socio-cultural sustainability factor was positive and significantly affect tourist satisfaction ( $\beta = 0.115$ ,  $T = 4.74$ ,  $p < 0.001$ ), confirming hypothesis (H5). The economic value factor was also affect tourist satisfaction ( $\beta = 0.401$ ,  $T = 22.12$ ,  $p < 0.001$ ), confirming hypothesis (H6).

**Figure 2**  
**COEFFICIENT PATH**



Source: Survey, 2021.

The higher the beta coefficient ( $\beta$ ), the stronger the effect of exogenous latent constructs on the endogenous latent construct. Table 6 and Figure 2 showed that the economic value factor had the topmost path coefficient of  $\beta = 0.401$  when compared to other  $\beta$  values in the model, which showed that it had a greater value of variance and high effect with regard to affecting the tourist satisfaction. Whereas, the socio-cultural sustainability factor had the least effect on economic value with  $\beta = -0.001$ . Figure 2 shows the graphical representation of all path coefficients of the model.



## 5. CONCLUSION

Economic viability and the development of a tourist destination are closely linked, as has been shown in previous studies in the field of tourism. Sustainability in tourism is a mystery if tourists are not satisfied with their experience (Andereck, 2009; Deng, Qiang, Walker, and Zhang, 2003). Using SMART-pls, this paper attempted to examine the moderating role of economic value between environmental sustainable tourism, a destination's local prosperity, socio-cultural issues, and the sustainability and satisfaction of tourists. Results from this study show that economic ability is an important moderator of local prosperity, environmental sustainability, socio-cultural stability and tourist satisfaction. Economic ability. Studies in the past have shown that economic viability has a significant impact on tourist satisfaction (Bramwell, 2011; Fan, Zhong and Zhang, 2012; Deng, Qiang and Walker 2003; Janusza and Bajdora 2013; Misganaw, 2015; Fernandez and Sanchez 2016; Adamnesh, Oucho and Zeitlyn 2014). In addition, it was found that each aspect of sustainable tourism had an effect on visitor satisfaction (Aydin and Alvarez, 2016; Fan, Zhong, and Zhang, 2012; Hussain, Ali, Ragavan, and Manhas, 2015).

When compared to the other values in the model, the interaction between local prosperity and economic value had the highest path coefficient with tourist satisfaction (0.401). Economic value has a large variance and a large effect on tourist satisfaction, so empirical analysis shows that local prosperity has an impact on a variety of assets (0.333). For example, although it is statistically significant, the relationship between socio-cultural sustainability and economic value had the lowest effect size, at (- 0.001).

An important theoretical contribution to the current state of tourism development is provided by this study, which examines the relationship between sustainable tourism and customer satisfaction as measured by economic viability. With respect to the existing Triple-Bottom-Line Approach (which ignores economic, social, and environmental factors), it makes a significant contribution to its expansion. In addition, the current findings show the importance of local prosperity satisfying tourists and economic viability that was overlooked in previous studies in different countries.

For businesses and the government, this discovery had a wide range of managerial implications. In order to ensure long-term economic viability, destination managers, government officials, and other decision-makers should carefully consider implementing a sustainable tourism strategy. Government officials benefited from this finding as well because it forced policymakers, practitioners, and politicians to see how local prosperity affects economic viability and tourist satisfaction, as well as how a solid, authentic socio-cultural environment influences tourist satisfaction.

In spite of its well-informed and conscientious visitors, the country needs to have clear mechanisms in place to promote sustainable tourism. As a result, designation managers can benefit from the current research by having a model for identifying factors that influence ST. Aside from helping reduce environmental and physical degradation, this allows for the development of procedures for what is allowed and what is restricted in each destination.

Decision-makers should devote their time and resources to implement their institutional responsibility and ensure that stakeholders (including tourists) are satisfied, as this has an enormous impact on tourist satisfaction. The three parties should work together

to advance and develop frameworks that encourage the host community to participate in tourism planning, decision-making, benefit-sharing, and access to social services as well. They should do this. Indigenous knowledge in environmental and social management will be contemplated, and the host community will be described. A destination's ability to sustain its economic health and the well-being of its visitors will be affected by its ability to improve public, private, civil, and non-governmental partnerships, familiarize itself with flawless plans, and implement comprehensive policies.

For the sake of maintaining social equity and promoting cultural diversity, as well as preserving physical integrity, biological diversity, and the purity of an area, tourism managers should make sure that the industry is set up in such a way that it makes the best use of available environmental resources. In addition, all business ventures in the industry should be properly linked to the market, and new destination development, such as Sheger Park, Intoto Park, and so on, should receive adequate attention. In contrast to its effect on tourist satisfaction, socio-cultural sustainability has little impact on economic value, particularly in countries like Ethiopia that are marketed as cultural destinations. Accordingly, regardless of the current findings, the government should implement intervention mechanisms that will show its economic contribution to the tourism sector and to build public awareness. Finally, research-based intervention will be used to address issues related to sustainable tourism in the country and its economic contribution.

## 6. LIMITATION AND FUTURE RESEARCH AREA

For future research in the field of sustainable tourism and development, this study had some limitations. First and foremost, longitudinal research is essential for gaining a deeper understanding of how the integration of multiple alternative destination building strategies contributes to community and stakeholder interest, as well as overall economic growth. Even though reliable findings in relation to tourism sustainability dimensions, economic viability and visitor satisfaction have not yet been established, future researchers can thoroughly investigate the relative contribution of each measurement to visitors' satisfaction. Further research would yield different results because of the relatively stable governmental climate and improved social order. Finally, the inclusion of additional sustainability dimensions could improve the dataset's total variance explanation and lead to new discoveries in the field.

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