

Stolen history: Community concern towards looting of cultural heritage and its tourism implications

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ABSTRACT

It has become increasingly commonplace to exhibit antiques and historical artefacts in cultural museums, prompted by the flourishing global art market. However, behind the phenomenon of blockbuster exhibitions in leading tourism cities throughout the world, lies the problem of looted cultural heritage. This study proposes a research framework combining conceptual and empirical approaches. The authors explore the previously neglected concerns of local communities towards the smuggling of cultural heritage property with particular reference to Yemen. Structural model development and assessment were performed using a dual analysis process that involved covariance-based structural equation modelling (CB-SEM) and partial least squares (PLS-SEM). The researchers propose six constructs that contribute significantly to sustainable tourism: direct protection management, trust in government, community participation and support for sustainable tourism. The study proposes critical insights about mitigating this global dilemma for implementation by international authorities, governments, nongovernmental organisations and scholars.

1. Introduction

Each year millions visit museums and historical monuments in countries across the globe. Though authorities have attempted to track and safeguard valuable artefacts, the phenomenon of cultural heritage looting has evolved into a global activity and market (Byrne, 2016; Altaweel, 2019). The International Council of Museums (ICOM) releases periodically 'Red Lists' – potentially endangered cultural objects in Asia, South America, Africa and the Middle East. The losses undermine cultural and heritage values and have taken a heavy toll on the infrastructure of countries across these regions (ICOM, 2019). The capacity of such nations to restore and safeguard their lost cultural assets is impeded by a mixture of inadequate security, political conflicts and/or economic instability. Yemen recently appeared at the top of the list, indicative of the endemic vandalism which is impacting on a rich culture and heritage which dates back to the ancient world (3000 BCE) (see Appendix).

Live Science (2019) has reported looting between 2015 and 2018 of dozens of the finest examples of authentic Yemeni civilisation, such as antiques, statues, monuments and coins. The smuggled items generated over US\$6 million at auctions in the USA, driving governments in both countries to act based on the Hague Convention for the Protection of

Cultural Property (1954). Meanwhile, the United Nations World Tourism Organisation (UNWTO) has launched global campaigns to combat the illicit trade, such as the *Anti-trafficking Campaign: Your Actions Count – Help Fight Trafficking! (UNESCO, 2014)*. Despite growing global efforts and rules that track illegal cultural markets, the looting of cultural heritage is accelerating, with art houses, museums and auction centres in several European countries and the USA continuing to exhibit stolen cultural properties (Altaweel, 2019; The Washington Post, 2019).

The looting of cultural heritage obstructs prosperity and is calamitous for human civilisation and values. According to UNWTO the phenomenon involves international organised crimes that threaten global tourism development and sustainability. It impacts directly on vulnerable communities by eliminating heritage, legacy and treasures, and causing extreme harm to aesthetic, historical and spiritual characteristics, thereby being detrimental to present and future generations (Byrne, 2016; du Cros & McKercher, 2015). In charting the evolution of tourism in Yemen, it is vital to note that it relies on heritage and cultural resources that are representative of the homeland of Arabian civilisation (Mackintosh-Smith, 2014). The earliest evaluations of tourism development in Yemen by tourism scholars emphasised the importance of objects of cultural heritage as tourism resources (Burns & Cooper, 1997).

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Furthermore, Yemeni national identity draws heavily on community attachments to culture, food, history, customs and traditions (Mackintosh-Smith, 2014). However, there has been inadequate incorporation of the role placed by local communities in protecting cultural properties by authorities and nongovernmental organisations (NGOs). Identifying the complex ambiguities and nexus between community participation and sustainable development during periods of conflict remains an enduring challenge for the tourism sector (Su & Wall, 2014).

Cultural and heritage products are essential components of tourism generally and of cultural tourism in particular (du Cros & McKercher, 2015). They offer communities a potential focus around quality of life (Andereck et al., 2007). When managed effectively they consider the principles of sustainable tourism and contribute to a broadening of environmental and social values (Jamal & Stronza, 2009). The phenomenon is manifest in the process of managing heritage materials, preserving identity and originality with prospective local benefits (Zhao et al., 2016). Bryce et al. (2015) provided empirical confirmation that authentic heritage tourism plays a role in creating memorable travel experiences. Tourism competitiveness is diminished when tangible and/or intangible heritage is absent. Those visiting historical and archaeological destinations hold active perceptions of such notions (Bryce et al., 2015; Zhao et al., 2016). As was indicated previously, sustainability can guide cultural and heritage tourism and underpins the protection of identities and authenticity by integrating stakeholders into local communities.

Scholars have addressed the phenomenon of looting cultural heritage in various contexts - archaeology, history, geography, museology, anthropology and law (Brodie, 2003; Patuelli et al., 2013; Panella, 2014; Lasaponara et al., 2014; Vella et al., 2015; Hardy, 2016; Warnke, 2019; Polner, 2019). However, there has been a dearth of tourism specific studies with minimal attention paid to its potential impacts on sustainable tourism development. Although tourism scholars have increasingly active in identifying global challenges such as overtourism, congestion, climate change and stakeholder engagement (Gursoy et al., 2019), there has been no comprehensive effort to connect the looting of cultural heritage with tourism planning and sustainability. The current authors consider it important to explain the repercussions of this issue on tourism. They aim to identify the concerns of affected communities on the looting of cultural heritage (e.g., perceptions of any negative impacts) by developing a validated scale. The paper also examines the potential impact of the applicable constructs on a conceptual structural model in the context of Yemen. This consists of direct protection management, trust in government, community participation and sustainable tourism support. The study provides insights about this complex topic for scholars, governments and tourism policy makers by adopting a psychometric analysis and a research framework combining qualitative and quantitative approaches.

2. Literature review

2.1. Global evolution of looting cultural heritage

Historically, the phenomenon of looting items or belongings has referred to previous acts that have been committed by nations, typically during the course of natural disasters, riots, occupations or victories in battle. Such actions have extended to a wide spectrum of the belongings of targeted nations, including food, materials, weapons, and furniture (Brodie, 2003). Nations that are based on previous civilisations have been particularly vulnerable to theft because of the high value attached to their possessions. Egyptian civilisation is notable for losing many treasures and historical artefacts. The pharaohs' tombs had been plundered by robbers even prior to Alexander the Great's invasion of Egypt in 332 BCE (Elia, 1997). Global awareness about the merit of preserving cultural heritage grew through the various tragic conflicts of the 20th century. Even before this, documentation of the colonial period gave witness to massive heritage destruction and looting across the world (Brodie, 2003). Examples of punitive actions by aggressors include those

of the Nazis and of the Soviet Union towards European heritage, of the British Empire towards its Asian colonies, the invasion of Asia by the Japanese Empire and the colonisation of Latin American by European conquerors (Brodie & Renfrew, 2005; Li, 2017; Nicholas, 1994). The two World Wars caused massive damage to heritage and archaeological sites and were a catalyst for international efforts to protect historical and cultural objects during wartime. This culminated in the 1954 Hague Convention for the Protection of Cultural Property (UNESCO, 1954).

Despite globally enforced protections for cultural objects, post-War economic and tourism development provided a stimulus for the illicit trade in antiques and historical objects. A wide range of countries were targeted by traffickers in cultural heritage through globally organised crime: Afghanistan, Egypt, Cyprus, Greece, Mali, Turkey, Iraq, Cambodia, Italy, Palestine, Thailand, Colombia, Jordan, Syria and Peru (Brodie, 2003; Brodie & Renfrew, 2005; Panella, 2014; Vella et al., 2015; Byrne, 2016; Brodie & Sabrine, 2018). This illegal business generates billions of US dollars annually and enriches suppliers and dealers from the generation of revenue in targeted countries. Business is most lucrative when destinations (e.g., those across the Middle East), experience armed conflict or unstable politics and economies (Elia, 1997). Conversely, stolen collections, are typically received by Western countries in North America (e.g., the USA), and Europe (e.g., the UK). Some destination countries have imposed relatively more stringent cultural property laws (Brodie, 2003). Handling the issue of looted cultural heritage is not a one-sided responsibility but a global challenge requiring concerted international actions through multiple channels and strategies, akin to the cooperation directed at fighting other global threats (e.g., drug smuggling and human trafficking).

2.2. Pillaging of Yemeni cultural and heritage treasures

The plundering of Yemeni legacy and heritage properties dates back as far as 2000–3000 BCE (Khalidi, 2017). The so-called *Blood Antiques* report indicated that over 100 Yemeni artefacts - ancient manuscripts, inscriptions, coins, statues and historical crafts - were sold over a decade in art auctions in the USA, Europe and the United Arab Emirates (Live Science, 2019). Similarly, after Saudi-UAE military airstrikes of Yemen were backed by western weapons due to ongoing political conflicts, several national museums and historical sites in Aden, Dhamar, Zabid and Taiz cities have been partly or completely burglarised since 2015 (Bachman, 2019). As is evidenced in Fig. 1, Yemeni cultural heritage properties have been targeted. These are priceless antiquities from those inhabiting its millennia-old civilisation which have been highlighted in the many sacred texts, including the Hebrew Bible, the ancient Greek and Roman scripts and Islam's holy book, the Qur'an. Among the highlights from these sources were the wonders of the Kingdom of Saba's (1000 BCE) Queen of Sheba in the legendary story of Balqis and King Solomon. Yemen is the homeland of the original Arabian civilisations, such as the Himyarite, Qataban, Ma'in, Awsan and Hadramout kingdoms (UNESCO, 1982). These are the roots of the authentic Arabian tribes that ruled the region for centuries (Mackintosh-Smith, 2014; Ransom, 2014). The ancient Yemeni civilisation was a major hub controlling the ancient world's spice trade between the east and the west, significantly enriching local cultures and producing unique traditions (Um, 2011). For the aforementioned reasons, Yemeni heritage treasures have been targeted by looters and thieves during armed conflict, attempting to exploit the political situation and inadequate security for their enrichment.

The growth in smuggling of Yemeni heritage antiques has been acknowledged by the international community. One example was the 2016 seizure of stolen Yemeni relics by the Swiss authorities in Geneva (The Guardian, 2016). The Swiss government also investigated suspects involved in illicit trade activities and imposed import restrictions to enhance cultural protections (The Wall Street Journal [WSJ], 2017). Furthermore, a gallery of free art events was staged in Washington, DC to increase public awareness about threats to Yemen's cultural heritage. Entitled 'A Glimpse of Ancient Yemen' it exhibited collections of

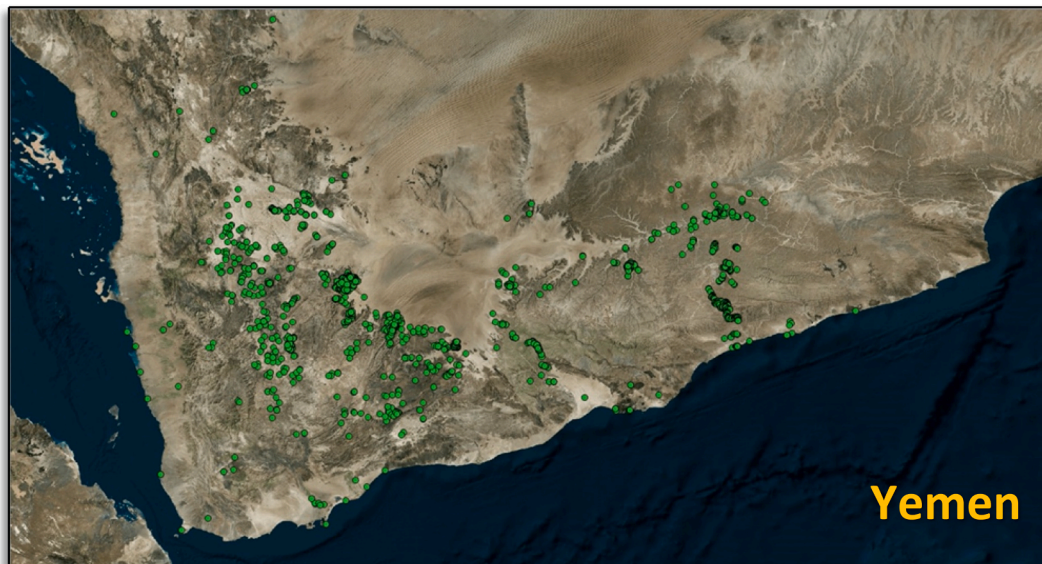


Fig. 1. Map of Antique heritage sites in Yemen by the German Archaeological Institute (DAI).
Source: <https://www.archernet.org/>

treasures from Yemeni civilisation. The Government of Yemen recently issued an official warning about growth of the illicit market and has been working with the United Nations (UN) and the USA to investigate, block and track smuggled Yemeni antiquities (The Washington Post, 2019). Actions by the authorities to restrain such illegal activities have made some progress to secure Yemen's cultural and heritage treasures. The current study investigates the role of government actions and protection strategies to prevent the looting of Yemen's cultural properties in the context of tourism.

2.3. Social exchange theory (SET)

SET is a widely accepted construct that captures interactions between individuals and groups (Gursoy et al., 2019). It explains the dynamic process of economic, sociocultural, and environmental interests based on positive and/or negative impacts. A number of scholars have evaluated stakeholder interactions during the process of tourism development. Nunkoo and So (2016) found that positive impacts (e.g., economic benefit) has a positive influence on community support for tourism activities. It is commonplace for communities to reject incipient tourism developments when there is a widely held perception of negative impacts (e.g., pollution, heritage destruction). There is a strong association between behaviours and intentions and perceived community benefits/losses through positive and/or negative impacts (Andreck et al., 2005; Lee, 2013). However, Gursoy et al. (2019) noted a lack of focus by tourism scholars on community responses associated with negative impacts (e.g., sociocultural losses). Locals are also less supportive of tourism development when it impinges on their cultural identities (Lee, 2013; Megeirhi et al., 2020). Alazaizeh et al. (2016) explored how cultural heritage values raise public awareness about the process of preservation. Community concerns are triggered in the face of a potential loss of identities and culture. Local residents take greater responsibility for protecting cultural heritage when are aware of the consequences (Gursoy et al., 2019; Lee, 2013; Megeirhi et al., 2020). When the negative impacts of heritage looting are considered, responses from community members evidently reflect their concerns toward historical and cultural.

2.4. Collaboration theory

Collaboration may be defined as a flexible and dynamic process where a multiplicity of stakeholders are engaged in working together to address issues or problems (Jamal & Stronza, 2009). There have been extensive

discussions of its applications to tourism and sustainable development (Hall, 1999; Gursoy et al., 2019). Collaboration is a critical element in the formation of solid partnerships between authorities, local communities, and tourism agencies in pursuit of best practice (Hall, 1999). Variable collaborations lead to a strengthening or weakening of the relationships between stakeholders, impacting ultimately on the coherence and consistency of productivity (Jamal & Stronza, 2009). Fluctuations tend to occur when heritage and cultural values are involved. Governmental agency endeavours to protect heritage are often confronted by locals evaluations of the consequences of such practices (Nunkoo & Ramkissoon, 2011; Jamal & Camargo, 2018). Trust between local residents and governments may be either developed or undermines. Scholars across a range of countries have addressed such interactions and/or conflicts at various stages of tourism development – before, during and/or after (Gursoy et al., 2019). In the case of managing heritage sites, there is great sensitivity about local historical and spiritual values (du Cros & McKercher, 2015). However, attempts to protect heritage and culture in a sustainable manner will not be achievable in the absence of collaboration with the local community (Hall, 1999; Nunkoo & Ramkissoon, 2011). Where locals perceive a loss of cultural traditions they will be less positively disposed to the development of sustainable tourism. Given this background, combating heritage looting will require enhancing trust and partnerships through an active alliance with the local community. Meanwhile, the incidence of looting cultural heritage might influence their responses to sustainable practices such as heritage protections (Gursoy et al., 2019). To achieve sustainability, it appears that a collaborative association will be needed between tourism development, cultural preservation and community behaviours.

2.5. Community participation and sustainable tourism

Community participation refers to the involvement of local residents in tourism development, including decision-making. It has been proposed as an indicator of engagement by local residents in supporting and enhancing tourism establishments (Eom & Han, 2019; Moon & Han, 2019; Simpson, 2001). Lee (2013) asserted that community involvement in strategic planning is required for sustainable tourism development to occur. Likewise, Simpson (2001) reported that local involvement is critical to community-based tourism; tourism implementation and progress can be managed by locals either fully or partially. Nunkoo and Ramkissoon (2011) identified a significant role for the community in supporting tourism development. Segota et al. (2017) emphasised the

importance of positive community attitudes to tourism development, including transparency in decision-making. They identified that greater participation by locals enhances positive responses towards sustainable tourism. Lately, [Gursoy et al. \(2019\)](#) deployed a meta-analysis to articulate the debates prevalent in previous studies on community contributions and social exchange impacts towards tourism development. [Megeirhi et al. \(2020\)](#) provided evidence that preserving traditions and historical artefacts enhances resident interactions. They clarified that locals were more inclined to participate in evaluations when cultural heritage protections are in place. It is evident that community engagement is integral to both cultural heritage protection and to tourism.

Sustainable tourism can help to preserve a community's cultural heritage. [Jamal and Stronza \(2009\)](#) decoded the complexity of sustainability and tourism in cultural precincts. They highlighted an essential role for collaboration amongst stakeholders to protect tourism structures. However, there are many challenges to achieving sustainable tourism ([Nicholas & Thapa, 2013](#); [Su & Wall, 2014](#); [Seraphin et al., 2018](#)). Contemporary phenomena such as overtourism increase resident anxieties about the loss of cultural heritage values ([Seraphin et al., 2018](#)). Though it is possible to restore damaged heritage, it is costly and time-consuming. Cultural physical objects are central elements of tourism infrastructure, and sustainability involves protecting social values, which eventually develop community identities ([Jordan & Jolliffe, 2013](#); [Segota et al., 2017](#)). Heritage looting raises apprehensions within the community, because smuggling cultural property damages both symbols and dignity ([Steen, 2008](#)). However, scholars have largely neglected the threat posed by heritage looting to sustainable tourism. The current authors explore the nexus between community participation and sustainable development by investigating local community concerns about issues associated with heritage looting.

2.6. Development of hypotheses

In planning to protect culture, it is essential for authorities, NGOs and local communities to cooperate ([Graci, 2013](#)). The actions of management and trust in government both play a role in smoothing such mutual interests. [Nunkoo and So \(2016\)](#) determined the functionality of government actions, sustainable practices and trust of local residents, as dependent on the prevalent level of community empowerment. The ensuing social, economic, or environmental benefits will determine whether relationships are strengthened or weakened by such actions. [Liburd and Becken \(2017\)](#) generated a tool for protecting heritage sites in Australia by outlining the associations amongst government policies, tourism public agencies and community values. Ineffective heritage management (e.g., inadequate protections) diminish trust in their government amongst locals, thereby increasing their responsibilities towards the protection process ([Alazaizeh et al., 2016](#); [Nunkoo & Ramkissoon, 2011](#)). Trust is critical in constructing coherent collaborations between relevant parties ([Hall, 1999](#)). Extensive evidence has been provided of government tourism policies to increase or decrease the prevalence of local community behaviours (i.e., heritage preservation orientation) ([Gursoy et al., 2019](#)). [Olya et al. \(2018\)](#) undertook an empirically-based assessment of positive and negative community responses towards official support practices for sustainable tourism in Iranian heritage sites. [Rasoolimanesh and Jaafar \(2017\)](#) verified a heterogeneous local community with tourism stakeholders to enhance or diminish sustainable development in a world heritage site in Malaysia.

The sense of belonging of residents in heritage areas has a significant effect on sustainability ([Eslami et al., 2019](#)). However, the influence on community attitudes of involvement in preserving cultural assets is less tangible ([Su & Wall, 2014](#)). [Gursoy et al. \(2019\)](#) indicated a high degree of homogeneity in perceived 'positive impact' of locals in supporting tourism progress. However, there has been limited coverage of perceived 'negative impacts' in the tourism literature. Local communities may be stimulated to face potential threats by concerns about the loss of heritage (e.g., authenticity, identity) and recognition of cultural

values (e.g., history) ([Megeirhi et al., 2020](#)). It appears as if negative impacts (i.e., losses of culture and heritage) trigger local communities to respond actively to government policies, thereby shaping their attitudes and behaviours. There is currently insufficient integration between local communities, governments, and international initiatives in the fight towards looting of heritage, thereby constituting a major drawback to combating this illegal market ([Polner, 2019](#); [INTERPOL, 2019](#)). Given the growth of cultural tourism pre-pandemic, alongside the incidence of heritage looting there is evident dissonance in the interplay between social developments and sustainability ([Patuelli et al., 2013](#); [Martín et al., 2018](#); [Altaweel, 2019](#)). Drawing upon prevalent theories and the aforementioned literature, the current authors contend that the combatting of looting cultural heritage depends on key elements - direct protection management, trust in government, community participation and sustainable tourism. Based on the preceding discussion, the following hypotheses are proposed.

H1. The cultural heritage looting phenomenon exerts a significant effect on direct protection management.

H2. The cultural heritage looting phenomenon exerts a significant effect on trust in government.

H3. Direct protection management exerts a significant effect on community participation.

H4. Trust in government exerts a significant effect on community participation.

H5. Community participation exerts a significant effect on sustainable tourism support.

3. Methodology

3.1. Research process and design

To determine the invisible scope of the issue of looting cultural heritage and its impacts on sustainable tourism, this exploratory mixed methods investigation is divided into two major phases ([Khoo-Lattimore et al., 2019](#)). The first phase entails adopting a conceptual approach, and the second has been formulated as an empirical framework. Firstly, a qualitative method was used to establish baseline insights into the phenomenon of smuggling cultural artefacts. At this stage, the authors identified potential concepts and domains related to heritage looting and trafficking through an extensive review of the literature and of global media articles. Moreover, semi-structured interviews were conducted to identify local community concerns and feelings. Next, content analysis (CA) was performed for the unstructured data to decode the possible aspects of this global threat.

In the second phase, a systematic analytical process was adopted to achieve the study objectives. A survey questionnaire was developed to explore local community concerns and attitudes towards protecting relevant cultural heritage properties. The authors checked the reliability and validity of the measurement items. Structural equation modelling (SEM) was developed consisting of multiple indicators to test the community response to combating the cultural heritage looting phenomenon and community willingness to participate in the sustainable development of cultural heritage using the dual analysis process of covariance-based (CB-SEM) and partial least squares (PLS-SEM). As is outlined in [Fig. 2](#), [Churchill's \(1979\)](#) procedures and [Gerbing and Anderson's \(1988\)](#) guidelines were used to develop and estimate the associations of the structural model.

3.2. Conceptual approach

3.2.1. Unstructured data and sampling

The authors undertook a thorough evaluation of primary sources, including government statements, media reports, and news articles.

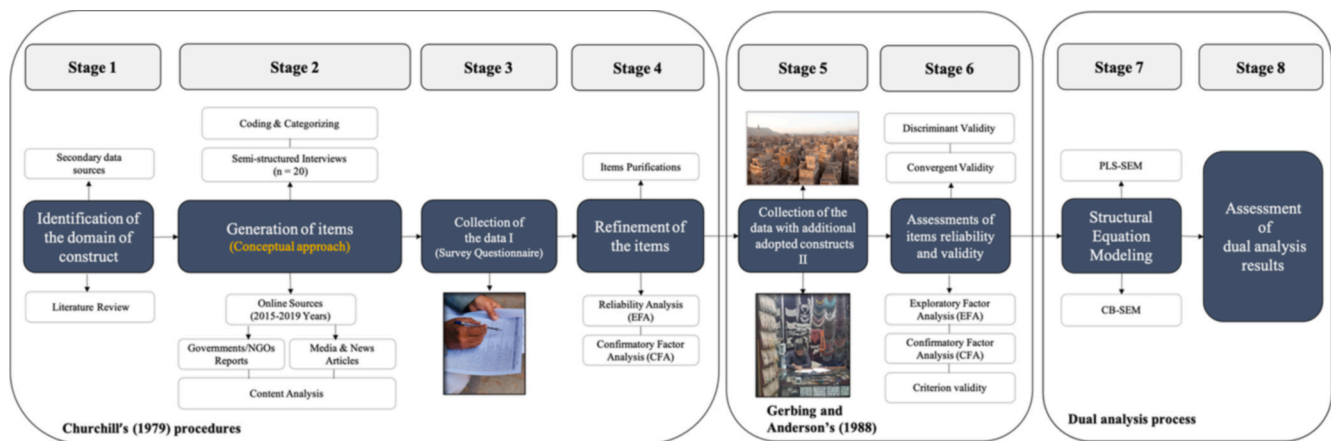


Fig. 2. Research design and process.

With a view to placing limits on the sample, they examined reputable international sources published in English between 2015 and 2019. Specific keywords were adopted, such as 'Heritage looting', 'Blood antiques' and 'Cultural object smuggling', in order to track related articles and sources within the context of Yemen and using the Google search engine. To avoid missing any typical related sample data, the search process was conducted at different times between November and December 2019 with a view to including the highest number of sources (Hsieh & Shannon, 2005). Semi-structured interviews were also conducted with 20 local residents of historical cities in Yemen. Employing a team of local professionals, the interviewers approached selected residents who owned either a home or a local business in Marib City (i.e. the capital of the ancient Sheba kingdom in 1000 BCE) and the old city of Sana'a, a site granted UNESCO world heritage site (WHS) designation in 1986. The use of multiple sources of evidence strengthens the investigation conceptually and provides potentially holistic insights into the potential causes and effects of a particular phenomenon (Myers, 2013).

3.2.2. Data analysis and materials

The study proceeded with the analysis of valid data using the process proposed by Miles and Huberman (1994). The assembled data were subjected to content analysis as proposed by Hsieh and Shannon (2005). A total of 52 sources were initially captured. After careful screening to eliminate any repeated or doubled items, 35 articles and reports were confirmed for the analysis. The observed data consisted of reliable information about the looting of Yemen's heritage properties. To avoid potential data bias, the study relied on diverse sources published by leading global media (e.g. The Washington Post, The New York Times, The WSJ, The Telegraph and Japan Times), organisation reports (e.g. International Criminal Police Organisation [INTERPOL], UN and UNESCO) and government statements (e.g. Bureau of Educational and cultural affairs of the US department of state, the Wilson Centre, the UK government and the General Organisation of Antiques and Museums of Yemen) to ensure validity of the information. MAXQDA (2020) software was used as the primary qualitative data analysis tool.

3.3. Empirical approach

3.3.1. Measurement and survey development

The prior observation process of local community concerns generated 36 items that were constructed under 6 variables. To verify the clarity of these items, two cultural tourism experts were asked to check the proposed items. Slight improvements were suggested relating to terms and linguistic issues. Supplementary valid constructs were also adapted from previous studies and included direct protection management, trust in government, community participation and sustainable tourism support, with 4 items for each. The authors have made slight

modifications to the measurements in the adaptation process to suit the study context. The later developed constructs were acquired from Alazaizeh et al. (2016), Nunkoo and So (2016), Olya and Gavilyan (2017), Nicholas et al. (2009), Andreck et al. (2005) and López et al. (2018). All of the developed study items were measured using a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A field-based survey was adopted using non-probability convenience sampling. The survey questionnaire was initially designed in English and then translated into Arabic, which is the official speaking language in Yemen. Thus, a blind back-translation technique was used and eventually verified by a native-speaking tourism academic. In this context, the survey questionnaire design consisted of three sections. Firstly, the study's purpose was highlighted for each participant using textual and pictorial content. Secondly, the measurement questions were presented in two subparts. Thirdly, the demographic profiles of the participants were obtained. To verify the validity of the survey contents, a preliminary pilot study was conducted with approximately 10 participants to ensure the clarity of the questions and the overall survey design.

3.3.2. Data collection and participant profile

The survey collection was conducted in the old city of Sana'a (WHS) because it is an invaluable landmark in Yemeni heritage and tourism. Sana'a is one of the world's oldest living cities and played a significant role in ancient human civilisation around 3000 BCE (e.g. Ghumdan Palace) and during the flourishing of the Islamic Era in the 7th–8th century (UNESCO, 1982). It was a major global centre for trading, agriculture and architecture and hub of the Islamic enlightenment with more than 100 mosques and 6000 mud brick multi storey towers (Lamprakos, 2015). Prior permission was obtained from the local authority concerning compliance with legal protocols. Well-trained local students from the University of Sana'a assisted the data collection. The survey covered most of the old city's notable sites and markets. Participants were approached in their local business shops or during social gatherings. A total of 300 local residents participated in the survey with all forms being returned complete and considered suitable for final analysis. The sample size is sufficient to allow the application of SEM criteria (Hair et al., 1998).

The sample consisted of 67% (201) males and 33% (99) females. Their ages were grouped as follows: 35% (105) 19–29 years old, 29.3% (88) 30–39 years old, 19.7% (59) 40–49 years old and 16% (48) 50 years old and above. Household type was as follows: 51% (153) were owners, 44.7% (134) were renters and 4.3% (13) belonged to others. With regard to educational level, 41% (123) completed high school, 27.3% (82) completed less than high school, 17.3% (52) had a 2-year community college degree, 10.7% (32) were university degree holders and 3.7% (11) were holders of higher graduate degrees. The participants' marital status was as follows: 53.7% (161) were married, 40.3% (121) were single and 6% (18) belonged to others. In addition, the respondents' jobs were 27.7%

(83) public sector employees, 25% (75) were students, 20.7% (62) were private sector employees, 15.3% (46) were freelancers/jobless and 11.3% (34) were merchants. For their duration of stay in this heritage city, the majority of the respondents, i.e. 53.7% (161) reported staying there for over 10 years. Lastly, the duration time for completing the field survey questionnaires was between January and February 2020.

3.3.3. Dual analysis using CB-SEM and PLS-SEM

The use of SEM analysis through CB or PLS has been insightful in the tourism literature because of its capacity to estimate developed structural model paths and coefficients (Lee et al., 2011; Hair et al., 2017). Each application has a unique setting for interpreting the critical consequences of data sets. However, scholars from different fields still lack sufficient awareness of how selecting an appropriate analysis tool can provide a completely adequate research framework (Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018). CB-SEM is sufficient to estimate the developed model based on covariances, while PLS-SEM is more to explain the variances. (Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018). It is necessary to understand the features of diverse analyses that achieve the study objectives which might not apply to all structural models (Hair et al., 2017). It is probably inadvisable to consider dual analysis when the design of the structural model is complex (e.g., reflective-formative) (Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018). The model developed in the current study is evaluated by merging CB-SEM and PLS-SEM to diagnose ambiguities beyond the functionality of both tools in a dual analysis process (Nunkoo et al., 2013; Ali, Rasoolimanesh, Sarstedt, Ringle, & Ryu, 2018). Although dissimilarity of using both analytical tools are notable in processing structural data. Al-Ansi et al. (2020) confirmed the consistency of both tools empirically in developing a scale. The present study advances current analysis usability in tourism to the next level by providing insights into and effective solutions for complicated issues confronting the industry. The authors proceed to analyze the data with SPSS® Amos™ 24.0 and SmartPLS 3.2.9 software.

4. Findings

4.1. Conceptual approach

4.1.1. Content analysis CA

The authors used a word combination technique with 3 word settings. Out of a total of 30,418 words, 2761 combination words were established from 35 articles. To narrow down wording frequency, the top 50 repeated words that emerged in the articles were activated prior to merging concepts with similar contextual meanings. Amongst the 50 words, the 20 most frequent combination words were determined. A basis for the articles' contents was established to identify potential terms and issues frequently discussed in media reports (Hsieh & Shannon, 2005). The final 20 most common words included the following: 'The United States', 'Antiquities and Museums', 'Looting and Trafficking', 'The Middle East', 'Around the World', 'Trafficking of Cultural', 'National Museum of', 'The Arabian Peninsula' and 'Queen of Sheba'. Conceptually, we classified these words into three major categories. The first category [Targeted destinations] included words such as 'The Middle East' and 'The Arabian Peninsula'. The second category [Targeted properties and actions] can be detected in words such as 'Trafficking of Cultural', 'Queen of Sheba', 'Looting and Trafficking', 'Around the World' and 'National Museum of'. The third category [Recipient destinations] strongly indicates the places and host markets where smuggled artefacts are sold, such as 'The United States'. The three categories provide a base to progress an observation process that identifies local resident responses.

4.1.2. Semi-structured interviews

The authors determined local community concerns and feelings towards the topic of looting heritage artefacts. During the interviews, the

authors observed consensus about the destruction and intended actions to eradicate their culture and history and its potential impacts on future tourism growth. It was noted earlier that heritage tourism provides a primary social and economic structure for local communities in Yemen (Burns & Cooper, 1997; UNESCO, 1982). The absence of cultural products will place obstacles in the way of developing its national identity and quality of life. The following statements were selected from respondents to explain this notion:

... While we are proud of our distinguished civilisation and culture, which root back to the son of Noah, Sam, from the period after the great flood, others find a way to destroy this legacy, the local people need to stand up together to stop such irresponsible actions.

(Ali, 29 years old)

... When I was in elementary school, I got a chance to visit the National Museum of Sana'a. The first instruction given to us was do not touch or damage any antique or artefact. Such act is prohibited. Today, these treasures are stolen and brought outside the country, eliminating their historical value.

(Yehia, 23 years old)

... I remember in the late 1990s, many Westerners visited historical places in Sana'a, Ibb and Marib, including Awwam Temple (i.e. Queen Bilqis Ruins). They claimed they were archaeologists. Since then until now, some heritage objects have disappeared. We cannot trust anyone at all.

(Khalid, 49 years old)

... I never expected that the international community in the 21st century is still incapable of stopping such illegal activity. Unfortunately, it is an awful crime against culture that shows us the dark side of the era that we are living in.

(Saeed, 44 years old)

[with a deep breath] ... the time we struggle to save our families' living expenses and daily work to preserve our nation and cultural symbols, we are shocked by such an illicit trade that demolishes everything. I cannot foresee how our economic and social lives will turn out in the future.

(Nasir, 38 years old)

The interviews revealed local community concerns and anxieties towards the looting of cultural artefacts. Inferentially, the assessment uncovered various dimensions that touched tangible/intangible aspects. These included national identity, historical value, law and rules, civilisation and authenticity, cultural and environmental value. The extracted items were purified/emphasised by two external experts. This stage involved coding the initial items caused by cultural heritage looting for empirical testing.

4.2. Empirical approach

4.2.1. Exploratory factor analysis (EFA)

EFA was initially performed using the principal component analysis technique and the promax method to identify local community concern constructs towards the heritage looting phenomenon. A total of 36 items was captured. Interestingly, all the developed items were retrieved completely and loaded above 0.60 (Li & Cai, 2012). Thus, no item was excluded in the process. The retained items were generated in 6 constructs. As presented in Table 1, the Kaiser–Meyer–Olkin (KMO) value was 0.924 and Bartlett's test of sphericity was highly significant ($p < 0.000$), indicating the adequacy of the factor analysis. The total variance explained by the 6 generated construct eigenvalues was higher than 1, accounting for approximately 63.247%. The first construct, 'Historical and humanity

legacy', captured 35.207%. Construct two was labelled 'National identity and symbolism' and accounted for 7.110% of the total variance. The third and fourth constructs, namely, 'Authenticity and originality' and 'Ecological and environmental', comprised 6.915% and 5.576% of the total variance, respectively. The fifth loaded construct, labelled 'Civilisation and art', explained 4.657% of the variance. The sixth construct, labelled as 'International policies and rules', accounted for 3.781% of the variance. Furthermore, each identified construct included six items.

The reliability value of each item was also tested using the Cronbach's alpha technique to estimate internal consistency amongst all the six explored constructs. The coefficient values (Construct 1 = 0.869, Construct 2 = 0.864, Construct 3 = 0.883, Construct 4 = 0.877, Construct 5 = 0.862 and Construct 6 = 0.900) were all above the suggested value of 0.70 of the reliability criteria (Nunnally, 1978). Lastly, the normality assessment indicated that the skewness (−0.843 to −1.548, standard error = 0.141) and kurtosis (+0.563 to +2.751, standard error = 0.281) values were within a sufficient range of −3.00 to +3.00, denoting that the data set was free of skewness and kurtosis issues.

4.2.2. Confirmatory factor analysis CFA of identified constructs

CFA was conducted to estimate the reliability and validity cross correlations of the six established factors. The goodness-of-fit statistics was: $\chi^2 = 1009.750$, $df = 573$, $p < 0.000$, $\chi^2/df = 1.762$, RMSEA = 0.050, CFI = 0.926, IFI = 0.927, TLI = 0.919 indicating sufficient model fit. The composite reliability (CR) assessment values loaded between 0.861 and 0.901, which were greater than the thresholds suggested (0.60). Besides, the average variance extracted (AVE) values determined acceptable scores ranging from 0.510 to 0.604. Furthermore, the highest score of the correlation test was 0.576, whereas the lowest score was 0.393. These results exhibited acceptable convergent and discriminant scores between the identified constructs according to Churchill (1979), Bagozzi and Yi (1988), and Hair et al. (1998). This stage confirmed the reliability and validity of the six identified constructs. The results are presented in Table 2.

4.2.3. Dual analysis of the developed measurement model

The authors were examined the sufficiency and functionality of the six identified constructs and the four supplemental proposed constructs developed in the research model. A dual estimation process for assessing convergent and discriminant validities was established as shown in Table 3. Firstly, CFA was performed to test model fit, obtaining the following goodness-of-fit statistics: $\chi^2 = 1967.557$, $df = 1252$, $p < 0.000$, $\chi^2/df = 1.572$, RMSEA = 0.044, CFI = 0.915, IFI = 0.916, TLI = 0.910. The (CR) of the model constructs was loaded effectively and ranged from 0.819 to 0.901, exceeding the standard of 0.60 (Bagozzi & Yi, 1988). Moreover, the (AVE) values of all the constructs in the model achieved excellent scores ranging from 0.510 to 0.654, which were higher than the minimum criteria of 0.50 (Hair et al., 1998). The discriminant validity estimation achieved acceptable correlations values amongst all the developed constructs ranging from 0.006 to 0.669, which sufficiently met the discriminant validity criteria (Hair et al., 1998).

A second evaluation step of the measurement model involving two sub-estimation levels covered convergent and discriminant validities as suggested by Ringle et al. (2015). Hence, the convergent estimation involved CR values ranging from 0.878 to 0.923, which were determined as excellent thresholds values; meanwhile, the AVE scores were between 0.593 and 0.735, which supported the required standards (Bagozzi & Yi, 1988; Hair et al., 1998), as indicated in Table 3. To estimate discriminant validity, a heterotrait-monotrait ratio (HTMT) criterion was adopted, achieving perfect scores between 0.099 and 0.675, which were below the 0.9 threshold suggested by Henseler et al. (2015), as exhibited in Table 4.

4.2.4. Dual analysis of structural model (CB-SEM versus PLS-SEM)

Firstly, a CB-SEM statistical technique was performed to test the developed model associations. As shown in Fig. 3, the goodness-of-fit results achieved excellent values as follows: $\chi^2 = 2002.784$, $df =$

1257, $p < 0.000$, $\chi^2/df = 1.593$, RMSEA = 0.045, CFI = 0.912, IFI = 0.912, TLI = 0.907 and adjusted goodness-of-fit index (AGFI) = 0.800. As predicted in Hypotheses 1, 3 and 5, the relationships of the constructs were positively and significantly supported as follows: **H1**: β Cultural heritage looting phenomenon \rightarrow Direct protection management = 0.168, $t = 2.501$, $p < 0.05$; **H3**: β Direct protection management \rightarrow Community participation = 0.238, $t = 3.564$, $p < 0.01$ and **H5**: β Community participation \rightarrow Sustainable tourism support = 0.807, $t = 9.455$, $p < 0.01$. Conversely, the path relationships were negatively and significantly affected in in Hypotheses 2 and 4: **H2**: β Cultural heritage looting phenomenon \rightarrow Trust in government = −0.300, $t = −4.502$, $p < 0.01$ and **H4**: β Trust in government \rightarrow Community participation = −0.202, $t = −3.118$, $p < 0.01$. The total explanation power of 'Direct protection management' was $R^2 = 0.028\%$, 'Trust in government' was $R^2 = 0.090\%$. Meanwhile, the R^2 values for 'Community participation' and 'Sustainable tourism support' were 10.2% and 65.2%, respectively.

Secondly, the PLS-SEM approach was established. As shown in Fig. 4, the findings indicated sufficient scores that are consistent with the CB-SEM outcomes. In Hypotheses 1, 3 and 5, the scores of the construct path coefficients were positively and significantly supported as follows: **H1**: β Cultural heritage looting phenomenon \rightarrow Direct protection management = 0.148, $t = 2.140$, $p < 0.05$; **H3**: β Direct protection management \rightarrow Community participation = 0.199, $t = 3.174$, $p < 0.01$ and **H5**: β Community participation \rightarrow Sustainable tourism support = 0.680, $t = 18.816$, $p < 0.01$. Similarly, the associations of the constructs were negatively and significantly affected in Hypotheses 2 and 4, as follows: **H2**: β Cultural heritage looting phenomenon \rightarrow Trust in government = −0.267, $t = 5.347$, $p < 0.01$ and **H4**: β Trust in government \rightarrow Community participation = −0.173, $t = 2.881$, $p < 0.01$. Moreover, the total variance of the endogenous constructs was accounted for, as follows: Direct protection management = 0.19%, Trust in government = 0.67%, Community participation = 0.63% and Sustainable tourism support = 46%. Furthermore, the predictive relevance (Q^2) results achieved acceptable scores amongst constructs. That is, Direct protection management = 0.012, Trust in government = 0.049, Community participation = 0.042 and Sustainable tourism support = 0.289 (Chin, 2010).

By contrast, the higher-order construct of the structural model 'Cultural heritage looting phenomenon' obtained excellent coefficient scores with the explored lower-order model constructs in both statistical approaches. For CB-SEM (Historical and humanity legacy = 0.703, $p < 0.01$; National identity and symbolism = 0.761, $p < 0.01$; Authenticity and originality = 0.749, $p < 0.01$; Ecological and environmental = 0.780, $p < 0.01$; Civilisation and art = 0.813, $p < 0.01$ and International policy and rules = 0.634, $p < 0.01$). For PLS-SEM (Historical and humanity legacy = 0.719, $p < 0.01$; National identity and symbolism = 0.766, $p < 0.01$; Authenticity and originality = 0.758, $p < 0.01$; Ecological and environmental = 0.792, $p < 0.01$; Civilisation and art = 0.794, $p < 0.01$ and International policy and rules = 0.697, $p < 0.01$). In summary, the two statistical estimations achieved identical effectiveness of the developed structural model. The results are provided in Table 5. The findings of the dual analysis indicated the homogeneity of the two analytical tools in predicting the structure of the structural model.

5. Discussion

This study has investigated an issue that impacts on community engagement in tourism development globally though has been neglected by tourism scholars. The scarcity of tourism studies examining such a serious topic prompted the current authors to adopt a complex mixed methods approach to identify the invisible consequences of the highlighted practice. Initially, the conceptual approach findings built a salient significant structure to decode local community concerns towards the illicit trade of Yemeni cultural heritage. The CA of online sources indicated that looters of cultural objects target destinations such as Yemen that have a low-security system, suffer from political conflict and/or are rich in cultural and heritage. Meanwhile, the recipient destinations of stolen cultural properties such as the USA are reported to be well-established countries with high-security systems, economic

Table 1
EFA results.

Scale Items	Loadings	Alpha (α)	Eigen-values	Variance explained (%)	Skewness (Std. error)	Kurtosis (Std. error)
(1) Historical and humanity legacy		0.869	12.675	35.207	(0.141)	(0.281)
HL1: Heritage looting is destroying the historical value of a local community/site.	0.685				-1.548	2.751
HL2: Heritage looting is damaging the history and legacy of a local community/site.	0.825				-1.417	2.740
HL3: Heritage looting is removing the fortune inherited from ancient humankind.	0.751				-1.188	2.067
HL4: Heritage looting is hurting the historical/ancient value of a local community.	0.864				-1.349	2.398
HL5: Heritage looting is changing the heritage richness and legacy of a community.	0.685				-1.141	1.347
HL6: Heritage looting is degrading the cultural diversity of a community.	0.697				-1.373	1.744
(2) National identity and symbolism		0.864	2.560	7.110		
NS1: Heritage looting is threatening the national identity of a local community.	0.673				-1.098	1.162
NS2: Heritage looting is dangerous to local and national symbols.	0.806				-1.048	1.473
NS3: Heritage looting is theft of community identity and personality.	0.760				-1.102	1.513
NS4: The national identity of a local community relies on its heritage properties.	0.825				-1.150	1.564
NS5: I believe that the absence of heritage properties reduces locals' identity.	0.735				-1.220	1.643
NS6: I believe that the cultural objects of a community build its national identity.	0.702				-0.983	0.563
(3) Authenticity and originality		0.883	2.490	6.915		
AO1: Heritage looting is destroying the originality of Yemeni local culture.	0.757				-1.084	0.692
AO2: Heritage looting is damaging the local community authenticity of Yemen.	0.739				-1.029	0.809
AO3: Heritage looting is removing the cultural originality of the Yemeni community.	0.803				-0.924	1.023
AO4: Heritage looting is hurting the authenticity and originality of Yemeni locals.	0.806				-0.937	0.767
AO5: Looting Yemeni heritage properties decreases the authenticity of local culture.	0.787				-1.023	0.803
AO6: Heritage looting distorts the validity/authenticity of Yemeni ancient history.	0.721				-0.955	0.882
(4) Ecological and environmental		0.877	2.004	5.576		
EE1: Heritage looting is destroying the archaeological sites of Yemeni culture.	0.667				-1.186	1.122
EE2: Heritage looting is damaging the physical architecture of sites in Yemen.	0.791				-1.161	1.395
EE3: Heritage looting is removing ancient's resources from sites/places in Yemen.	0.773				-1.100	1.143
EE4: Heritage looting is harming the cultural and physical assets of a historical site.	0.814				-1.104	1.482
EE5: Heritage looting is removing the physical value of Yemeni cultural sites.	0.793				-0.851	0.345
EE6: Heritage looting is distorting the preservation of archaeological sites in Yemen.	0.614				-0.939	0.563
(5) Civilisation and art		0.862	1.677	4.657		
CA1: Heritage looting is destroying the civilisation and arts of Yemen.	0.807				-1.054	0.958
CA2: Heritage looting is damaging the ancient communities in Yemen.	0.786				-1.044	1.205
CA3: Heritage looting is erasing the story of historic civilisations in Yemen.	0.611				-1.026	1.191
CA4: I believe that the absence of cultural artefacts influences the civilisations in Yemen.	0.740				-1.043	1.019
CA5: Heritage looting is decreasing the cultural treasures and art assets of Yemen.	0.764				-0.843	0.639
CA6: I believe that looting Yemeni historical artwork is demolishing its legacy.	0.723				-0.819	0.475
(6) International policies and rules		0.900	1.361	3.781		
PR1: I believe that international policies and rules are too weak to combat heritage looting.	0.728				-1.065	0.435
PR2: I believe that combating heritage looting requires stricter rules and policies.	0.848				-1.097	0.746
PR3: I believe that heritage looters practice their crimes easily and efficiently.	0.815				-1.044	0.493
PR4: I believe that heritage looting market demands increase the supply market.	0.889				-1.004	0.454
PR5: I believe that heritage looters use transits destinations easily and effortlessly.	0.842				-0.965	0.552
PR6: Restrictions in transit and final destinations will decrease heritage looting.	0.751				-1.092	0.281

(continued on next page)

Table 1 (continued)

Scale Items	Loadings	Alpha (α)	Eigen-values	Variance explained (%)	Skewness (Std. error)	Kurtosis (Std. error)
KMO and Bartlett's test = 0.924, Sig = 0.000				Total:		
				63.247%		

Note¹: α stand for Cronbach's alpha coefficient.

Table 2
CFA results of identified constructs.

Constructs	1	2	3	4	5	6	CR	AVE	Mean	SD
1. Historical and humanity legacy	1.00						0.864	0.515	5.61	1.01
2. National identity and symbolism	0.523	1.00					0.861	0.510	5.46	1.04
3. Authenticity and originality	0.403	0.537	1.00				0.877	0.542	5.33	1.13
4. Ecological and environmental	0.515	0.519	0.492	1.00			0.875	0.539	5.47	1.06
5. Civilisation and art	0.443	0.472	0.591	0.576	1.00		0.863	0.514	5.34	1.06
6. International policies and rules	0.398	0.422	0.393	0.461	0.484	1.00	0.901	0.604	5.33	1.25

$\chi^2 = 1009.750, df = 573, p < 0.000, \chi^2/df = 1.762, RMSEA = 0.050, CFI = 0.926, IFI = 0.927, TLI = 0.919, AGFI = 0.819$

Note: CR = Composite Reliability, AVE = Average Variance Extracted, SD = Standard Deviation.

stability and popular art markets. Evidently, the geographic distance of the involved countries demonstrates that the process of smuggling/trafficking cultural objects involves transferring them from the target destination through a multi-transit or regional hub destination prior to transportation to their final destination. These results are consistent with earlier sources and campaigns (Altaweel, 2019; UNESCO, 2014; Warnke, 2019). Nonetheless, the effort of the international community to track crimes against culture has elicited attention. A recent global gathering in Germany discussed the deficiencies of interagency cooperation in protecting cultural heritage amongst states (INTERPOL, 2019). However, public authorities are not recognising the importance of local community participation in combating the cultural heritage looting, failing to transform local community partnership into a decisive tool. Therefore, the current study findings propose the active involvement of local communities in target destinations to strengthen the fight against such global crimes.

In addition, the semi-structured interviews confirm the concerns of the local community in losing their heritage and legacy. Early scholars have asserted that community identity is essential for triggering the social and environmental concerns of local residents (Nicholas et al., 2009; Nunkoo & Ramkissoon, 2011; Rasoolimanesh & Jaafar, 2017). Thus, local communities in Yemen's heritage sites have expressed their apprehension about being deprived of their symbolic and local values, thereby affecting their social and economic future. By contrast, preserving their cultural heritage will provide tourism industry investment opportunities, and allow communities to preserve their identities. Historians and tourism scholars have emphasised the homogeneity in Yemen between local communities, their identity and culture over past centuries (Burns & Cooper, 1997; Mackintosh-Smith, 2014). Interestingly, local communities in Yemen witnessed identical incidents of stolen culture and heritage during the 18th century through the smuggling of their prestigious coffee beans (e.g. mocha) by European merchants, which eventually led to the country losing its position as the world's top coffee producer (Bloomberg, 2017; Um, 2011). Evidently, cultural and heritage property looting negatively impacts the social, economic, and ecological structures of local communities.

The SEM findings extend our assumptions by affirming the impact of the cultural heritage looting and trafficking phenomenon on the sustainable behaviour of local communities. This study has identified six salient local community concerns that generate intriguing insights into people's feelings and thoughts in victim destinations. The explored constructs clarify the expected devastation caused by the looting of cultural heritage on local community values. This study also emphasised the disastrous spillover effects on the past, present and future of local

culture, harming its social, environmental and economic growth. The previous tourism literature reported the crucial role played by heritage and cultural physical products in establishing dynamic tourism development that completely fosters tourism sustainability (Jordan & Jolliffe, 2013; Timothy & Nyaupane, 2009). The continuous practice of looting cultural heritage results in a decline of trust between authorities and local communities. Local residents lose any sense of reliance on governments and other stakeholders to assume responsibility in combating the illicit trade of cultural objects (Jamal & Stronza, 2009). The authorities play a key role in tracking the illicit trade process and identifying smuggled artefacts; hence, the relevant local government is recommended to declare an emergency alert to the international community to help stop cultural objects from passing through their borders by imposing rigorous screening processes and sharing related information and events with the public to reduce further loss of confidence.

Altaweel (2019) demonstrated the journey of stolen cultural items through flexible online platforms that stimulate illicit trading operation activities. To mitigate local community concerns, governments are required to apply direct management actions on target destinations with immediate effect, such as museums, archaeological sites and historical monuments by increasing security, designating rangers and imposing restrictions on visitation during periods of conflict. The authorities should provide protection instructions to local communities to create a network that will involve local communities in the protection process, building a defence to stop looters and smugglers from practicing their crimes. Jamal and Camargo (2018) identified effective metrics and governance policies for underpinning the cultural and sustainability values of the tourism structure. In accordance with the present performance of the international community in combating the cultural heritage looting phenomenon, the general effort is evidently insufficient in terms of the role of local communities in heritage protection engagement, invoking a reconsideration of collaboration planning (Hall, 1999; Liburd & Becken, 2017).

The structural model results also highlight the intention of local communities to protect their heritage. Thus, they should be considered during the process of decision making and management (Zhao et al., 2016). Moreover, providing logistical and financial support is important for facilitating the partnership, such as funding private sector projects related to heritage preservation. In general, the lack of collaboration between authorities and local communities significantly increases the act of cultural heritage looting, considerably expanding the gap between stakeholders in establishing constant sustainable tourism development. By contrast, engaging the local community is a focal component in supporting sustainable tourism. The controversy regarding the credibility of community participation and tourism sustainable support has

Table 3
Dual analysis assessment of measurement model.

Scale Items	CB-SEM		PLS-SEM				
	Beta	CR	AVE	CR	AVE	Mean	SD
(1) Historical and humanity legacy		0.864	0.515		0.902	0.605	
• Heritage looting is destroying the historical value of a local community/site.	0.661			0.764		5.747	1.344
• Heritage looting is damaging the history and legacy of a local community/site.	0.675			0.777		5.645	1.240
• Heritage looting is removing the fortune inherited from ancient humankind.	0.698			0.771		5.522	1.240
• Heritage looting is hurting the historical/ancient value of a local community.	0.724			0.772		5.672	1.223
• Heritage looting is changing the heritage richness and legacy of a community.	0.754			0.778		5.602	1.333
• Heritage looting is degrading the cultural diversity of a community.	0.784			0.805		5.523	1.442
(2) National identity and symbolism		0.861	0.510		0.899	0.597	
• Heritage looting is threatening the national identity of a local community.	0.772			0.796		5.456	1.434
• Heritage looting is dangerous to local and national symbols.	0.770			0.800		5.386	1.277
• Heritage looting is theft of community identity and personality.	0.745			0.784		5.379	1.298
• The national identity of a local community relies on its heritage properties.	0.727			0.783		5.451	1.350
• I believe that the absence of heritage properties reduces locals' identity.	0.622			0.730		5.576	1.352
• I believe that the cultural objects of a community build its national identity.	0.632			0.738		5.564	1.374
(3) Authenticity and originality		0.876	0.542		0.912	0.634	
• Heritage looting is destroying the originality of Yemeni local culture.	0.732			0.817		5.375	1.562
• Heritage looting is damaging the local community authenticity of Yemen.	0.725			0.803		5.298	1.484
• Heritage looting is removing the cultural originality of the Yemeni community.	0.772			0.806		5.295	1.271
• Heritage looting is hurting the authenticity and originality of Yemeni locals.	0.771			0.798		5.306	1.369
• Looting Yemeni heritage properties decreases the authenticity of local culture.	0.733			0.795		5.329	1.458
• Heritage looting distorts the validity/authenticity of Yemeni ancient history.	0.681			0.757		5.411	1.398
(4) Ecological and environmental		0.875	0.539		0.908	0.621	
• Heritage looting is destroying the archaeological sites of Yemeni culture.	0.628			0.734		5.614	1.386
• Heritage looting is damaging the physical architecture of sites in Yemen.	0.742			0.820		5.401	1.350
• Heritage looting is removing ancient's resources from sites/places in Yemen.	0.798			0.822		5.421	1.377
• Heritage looting is harming the cultural and physical assets of a historical site.	0.748			0.793		5.422	1.321
• Heritage looting is removing the physical value of Yemeni cultural sites.	0.739			0.783		5.477	1.344
• Heritage looting is distorting the preservation of archaeological sites in Yemen.	0.740			0.773		5.522	1.351
(5) Civilisation and art		0.863	0.513		0.897	0.593	
• Heritage looting is destroying the civilisation and arts of Yemen.	0.763			0.800		5.418	1.439
• Heritage looting is damaging the ancient communities in Yemen.	0.771			0.806		5.296	1.363
• Heritage looting is erasing the story of historic civilisations in Yemen.	0.722			0.779		5.260	1.389
• I believe that the absence of cultural artefacts influences the civilisations in Yemen.	0.738			0.788		5.326	1.401
• Heritage looting is decreasing the cultural treasures and art assets of Yemen.	0.680			0.750		5.355	1.306
• I believe that looting Yemeni historical artwork is demolishing its legacy.	0.612			0.692		5.433	1.365
(6) International policies and rules		0.901	0.603		0.923	0.668	
• I believe that international policies and rules are too weak to combat heritage looting.	0.729			0.785		5.408	1.633
• I believe that combating heritage looting requires stricter rules and policies.	0.821			0.849		5.333	1.545
• I believe that heritage looters practice their crimes easily and efficiently.	0.795			0.825		5.296	1.568
• I believe that heritage looting market demands increase the supply market.	0.820			0.843		5.278	1.566
• I believe that heritage looters use transits destinations easily and effortlessly.	0.786			0.831		5.314	1.412
• Restrictions in transit and final destinations will decrease heritage looting.	0.702			0.768		5.382	1.467
(7) Direct protection management		0.850	0.589		0.898	0.687	
To combat heritage looting, authorities should	0.711			0.810		4.708	1.855
• prohibit the use of heritage areas with problems during a conflict.							
• increase the number of rangers to combat heritage looting during a conflict.	0.876			0.884		4.760	1.656
• prohibit particularly damaging practices and the targeting of archaeological sites.	0.820			0.850		4.743	1.688
• limit the number of visitors in problematic areas during a conflict.	0.641			0.768		4.833	1.695
(8) Trust in government		0.882	0.654		0.917	0.735	
• I trust in local authorities to make the right decisions in tourism development.	0.780			0.812		3.490	1.947
• I have confidence in the local government to do what is right regarding tourism.	0.908			0.899		3.415	1.739
• I trust the local government to look after the interests of my community.	0.821			0.889		3.497	1.740
• Tourism decisions/plans made by my local government are reliable.	0.713			0.827		3.481	1.827
(9) Community participation		0.837	0.562		0.890	0.669	
To combat heritage looting,	0.726			0.798		5.463	1.607
• locals should provide support and participate.							
• locals should be involved in combating/decision-making regarding heritage looting	0.796			0.847		5.352	1.456
• locals should have some control over the outcome.	0.726			0.809		5.212	1.444
• collaboration with locals is an essential element.	0.748			0.816		5.331	1.471
(10) Sustainable tourism support		0.819	0.532		0.878	0.644	
• I support the development of community-based sustainable tourism initiatives.	0.682			0.779		5.298	1.463
• I cooperate with tourism planning and development initiatives	0.704			0.794		5.300	1.368
• I support local participation in tourism planning and development	0.828			0.866		5.312	1.436
• I participate in the promotion of environmental education and conservation.	0.694			0.768		5.443	1.453

Goodness-of-fit statistics: $\chi^2 = 1967.557$, $df = 1252$, $p < 0.000$, $\chi^2/df = 1.572$, $RMSEA = 0.044$, $CFI = 0.915$, $IFI = 0.916$, $TLI = 0.910$.

Note: SD stands for standard deviation. CR stands for composite reliability. AVE denotes average variance extracted.

Table 4
HTMT discriminant validity results.

Constructs	a	b	c	d	e	f	g	h	i	j
a: Historical and humanity legacy	–	–	–	–	–	–	–	–	–	–
b: Direct protection management	0.099	–	–	–	–	–	–	–	–	–
c: Trust in government	0.229	0.064	–	–	–	–	–	–	–	–
d: Community participation	0.341	0.236	0.201	–	–	–	–	–	–	–
e: Sustainable tourism support	0.437	0.203	0.159	0.814	–	–	–	–	–	–
f: National identity and symbolism	0.600	0.114	0.244	0.306	0.335	–	–	–	–	–
g: Authenticity and originality	0.457	0.118	0.169	0.205	0.187	0.614	–	–	–	–
h: Ecological and environmental	0.586	0.070	0.231	0.351	0.384	0.594	0.557	–	–	–
i: Civilisation and art	0.506	0.187	0.309	0.283	0.316	0.545	0.675	0.662	–	–
j: International policies and rules	0.448	0.232	0.181	0.390	0.353	0.477	0.438	0.518	0.549	–

Note: The HTMT findings indicate that all constructs values are below the suggested 0.9 threshold.

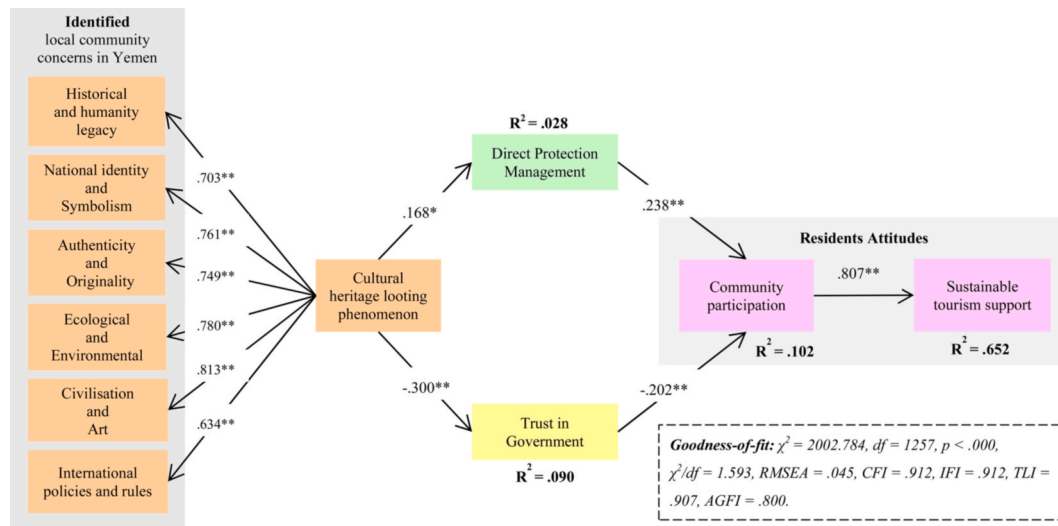


Fig. 3. CB-SEM results.

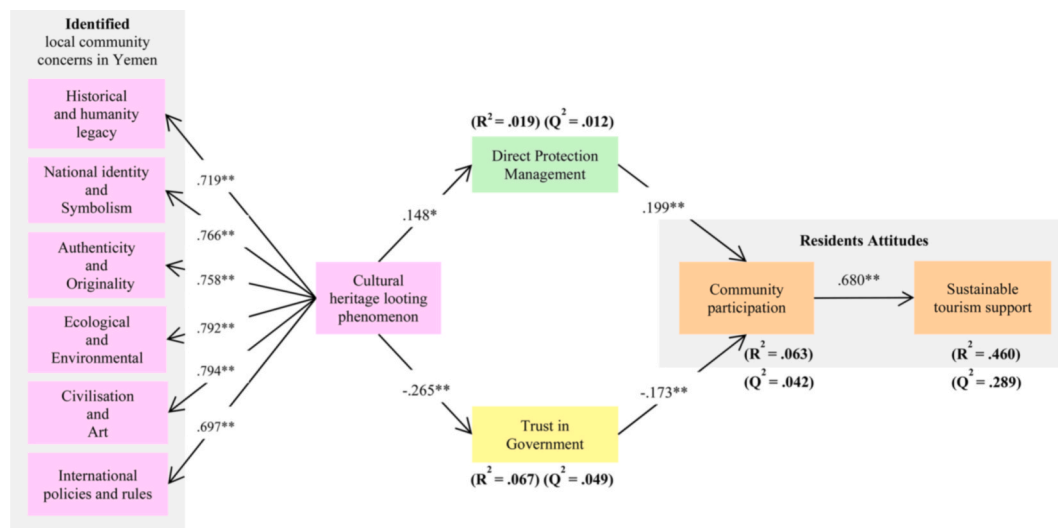


Fig. 4. PLS-SEM results.

been extensively discussed in the previous tourism literature (Eslami et al., 2019; Gursoy et al., 2019; Jamal & Stronza, 2009; Olya et al., 2018; Su & Wall, 2014; Šegota et al., 2017).

5.1. Theoretical implications

Firstly, this is amongst the first tourism studies to discuss the serious global phenomenon of looting cultural heritage, which adversely impacts future tourism planning and sustainable development. It underpins

the threats and risks from heritage looting that affect cultural tourism infrastructure by empirically indicating local community concerns and anxieties. It also determines the primary role of community participation in preventing the looting of heritage and maximizing support for sustainable tourism. This potentially enhances the theoretical concept prevalent in the tourism literature of local community involvement that has been defined by social exchange and collaboration theories (Gursoy et al., 2019; Hall, 1999; Nunkoo & Ramkissoon, 2011). Similarly, this study provides an overarching interpretation for related scientific fields,

Table 5
Dual analysis assessment of SEM (n = 300).

Paths	CB-SEM			PLS-SEM		
	Beta	t	Sig.	Beta	t	Sig.
H1 Cultural heritage looting phenomenon ⇨ Direct protection management	0.168*	2.501	Yes	0.148*	2.140	Yes
H2 Cultural heritage looting phenomenon ⇨ Trust in government	-0.300**	-4.502	Yes	-0.265**	5.347	Yes
H3 Direct protection management ⇨ Community participation	0.238**	3.564	Yes	0.199**	3.174	Yes
H4 Trust in government ⇨ Community participation	-0.202**	-3.118	Yes	-0.173**	2.881	Yes
H5 Community participation ⇨ Sustainable tourism support	0.807**	9.455	Yes	0.680**	18.816	Yes
Total variance explained for CB-SEM:			Total variance explained PLS-SEM:			
R^2 for Direct protection management = 0.028			R^{2adj} for Direct protection management = 0.019			$Q^2 = 0.012$
R^2 for Trust in government = 0.090			R^{2adj} for Trust in government = 0.067			$Q^2 = 0.049$
R^2 for Community participation = 0.102			R^{2adj} for Community participation = 0.063			$Q^2 = 0.042$
R^2 for Sustainable tourism support = 0.652			R^{2adj} for Sustainable tourism support = 0.460			$Q^2 = 0.289$
Goodness-of-fit statistics: $\chi^2 = 2002.784$, $df = 1257$, $p < 0.000$, $\chi^2/df = 1.593$, RMSEA = 0.045, CFI = 0.912, IFI = 0.912, TLI = 0.907, AGFI = 0.800						

*p < 0.05, **p < 0.01.

such as history, archaeology, museology and geography, in understanding the unseen dimensions and functions of the phenomenon of looting cultural heritage.

Secondly, this study identifies another threat to sustainable tourism beyond the common dilemmas that were previously discussed in the literature, such as overtourism, creating a new path for tourism scholars to enrich this critical topic with social, environmental and cultural connotations. The current study extends present knowledge of SET as a predictor of sustainable behaviours and attributes. Furthermore, it is observed that tourism researchers have focused on challenges occurring in developed countries, with lesser attention given to issues in less developing countries. Therefore, the present study widens the context of tourism development and local community attitudes in the case of Yemen as an emerging heritage and cultural tourism destination (Burns & Cooper, 1997). Thirdly, the study design contributes to methodological frameworks and process by adopting a mixed method research approach (conceptual and empirical) and analytical techniques (CA and dual analysis), thereby raise the level of previous and more conventional analyses used in tourism. This demonstrates the employability of a multi analysis process in support of the conceptual discussion. The current study also provides encouragement for tourism scholars to engage in innovative implementation of an intricate research framework and tools. This will allow them to stay abreast of the rapid industry developments, which cannot be effectively interpreted using traditional analytical tools (Khoo-Lattimore et al., 2019).

5.2. Managerial implications

The present research offers critical insights for developers of cultural tourism with particular reference to heritage, art, museums and historical monuments. Suggests have been made about confronting a global threat which is impacting on tourism destinations. This study strongly recommends that international authorities and related organisations, such as UNWTO, UNESCO and ICOMOS, should revise their current policies and strategies and take account of local community participation in combating the phenomenon of looting cultural heritage. The authors found that a major obstacle to international efforts in combating heritage property looters is the lack of integration and collaboration between local communities and related government agencies, particularly those in the USA and Yemen. The authors have provided potential guidance for stakeholders to re-evaluate the central role of local residents in protecting and safeguarding archaeological and monumental sites (Zhao et al., 2016). Implementing intensive social tools and programmes, such as voluntary work, youth initiatives, media campaigns and donations supported by related partners may help to save and protect living heritage properties, along with providing tacit assistance for increased local community awareness. Moreover, encouraging domestic tourism activities, such as school trips, shopping activities and family leisure, to visit historical cities can provide a solid platform for developing tourism capability. Ultimately, heritage and cultural tourism

are core elements of the future of tourism in Yemen, with potential contributions to developing cultural tourism globally.

This study has proposed potential solutions to a global threat. It has sought to explain the invisible consequences of illicit trading of cultural properties on national identity, authenticity, ecological and environmental preservation and sustainability. The rapid increase in looting of cultural treasures has been attributed to the poor management and screening of antique markets and documentation of heritage objects by recipient destinations, located primarily in the developed countries. The weakness of international security in tracking smuggled cultural artefacts either in target, transit or final destinations enables the smooth transfer of such items without effective restrictions and rules. Thus, improving current screening policies and practices are strongly recommended in all international ports to restrict such illegal acts against cultural products (INTERPOL, 2019; UNESCO, 2014).

Finally, this study builds a bridge between internal and external stakeholders to create mutually beneficial and close cooperation amongst local residents, governments, the international community and NGOs to restrain this active black market. Consequently, an active master plan should be developed by a higher authority, such as UNESCO and/or INTERPOL, to impose strict criteria instructing all key players in response to the emergency call to stop art market activities. This should take place until a complete monitoring process is applied exhaustively to all antiques and artefacts before they are exhibited in auctions, art houses or museums to achieve a high level of integrity. In general, fighting global organised crime, such as the phenomenon of looting cultural heritage, will never succeed without full integration, transparency and cooperation amongst stakeholders. Failing to do so will be a black mark against the global diplomatic system (Graci, 2013; Jamal & Camargo, 2018; Jamal & Stronza, 2009; Liburd & Becken, 2017).

5.3. Limitations and future studies

This is amongst the first tourism study to have discussed the global issue of looting cultural heritage. Accordingly, several limitations are observed, creating emerging prospects for future studies to enhance current clarifications and undertake further explorations of this historical phenomenon in particular affected regions. This study focuses on cultural heritage looting within the context of Yemen, which is considered an emerging tourism destination. However, an extensive investigation of this issue in other possible victim destinations listed by ICOM, such as Egypt, Afghanistan, China, Cambodia, Mexico, Italy, Greece and Colombia, will extend the currently limited knowledge about the forms, background, patterns and attributes of looting cultural heritage. This study also captures the views of local residents of the old city of Sana'a in Yemen, which is a particular party concerned with the loss of heritage and cultural values. Nonetheless, future scholars are recommended to observe the perceptions and responses of other parties, including government bodies, international organisations or the private sector in charge of protecting cultural properties.

In addition, this study has used limited constructs in developing a structural model, including community participation, trust in government and local community behaviours in supporting sustainable tourism to test its relationships with the identified aspects of heritage looting. Hence, additional theoretical constructs and concepts, such as locals' knowledge, public awareness, feelings and emotions, can be explored in future investigations. The development of innovative structural models may assist in predicting the causes and effects of looting heritage objects by examining multiple indicators as mediator or moderator constructs. The authors strongly recommend further investigations to uncover formative factors in the looting of cultural heritage. Lastly, this study conducts data collection within a targeted destination, namely Yemen. Evidently, the authors have not considered local residents or communities in the final destinations of smuggled cultural objects, such as the USA, including international visitors of historical museums and art auctions that host stolen cultural collections. Antiques and artefacts are essential cultural and heritage products that attract visitors in many cultural tourism destinations. Therefore, obtaining the perceptions of visitors and local residents towards recipient destinations and their potential attitudes towards such looting issues may generate significant findings to understand their cognitive and affective behaviours.

6. Figures

Statuettes: Statuettes and figurines representing human beings or animals in metal or stone.



14

14. Sandstone sculpture, Southwestern Arabia, 3rd-2nd millennium BC, 27 x 13.9 x 10.9 cm. © The Metropolitan Museum of Art



15

15. Bronze statuettes, Yemen (Sirwah), 1st c. BC-3rd c. AD, 10.4 x 2.7 cm; 8.9 x 3.3 cm. © I. Wagner/Deutsches Archäologisches Institut (DAI)



16

16. Copper alloy statuette, Yemen (Marib), 1st c. BC-2nd c. AD, 21 x 28 x 9.7 cm. © Trustees of the British Museum



17

17. Yellow stone statue, Yemen, 3rd c. BC-3rd c. AD, 20 x 8.3 cm. © Trustees of the British Museum

Statues and busts: Human beings or animal statues or busts made of metal or stone.



18

18. Alabaster funerary statue, Yemen, 1st c. AD, 45.5 x 13.3 x 10.3 cm. © RMN - Grand Palais (Musée du Louvre)/Hervé Lewandowski



19

19. Bronze relief, Yemen, 1st c. BC, 67 x 70 x 9.5 cm. © The National Museum, Sanaa. Photo: Musée du Louvre, dist. Grand Palais/Thierry Ollivier



20

20. Bronze bust, Yemen (Jabal al-Awd), 3rd-2nd c. BC, 23 x 14 cm. © General Organization of Antiquities and Museums (GOAM); CASIS Project, University of Pisa



21

21. Bronze statue, Yemen (Al Baida), 6th-5th c. BC, 140 cm. © The National Museum, Sanaa. Photo: Musée du Louvre, dist. Grand Palais/Anne Chauvet

Appendix. Examples of the Yemeni cultural heritage objects listed in danger 'Red Lists' by the International Council of Museums ICOM. **Source:** <http://icom.museum>.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.tourman.2021.104349>.

References

- Al-Ansi, A., Han, H., Kim, S., & King, B. (2020). Inconvenient experiences amongst muslim travelers: An analysis of the multiple causes. *Journal of Travel Research*. <https://doi.org/10.1177/0047287520934870>
- Alazaizeh, M. M., Hallo, J. C., Backman, S. J., Norman, W. C., & Vogel, M. A. (2016). Value orientations and heritage tourism management at Petra Archaeological Park, Jordan. *Tourism Management*, 57, 149–158.
- Ali, F., Rasoolimanesh, S. M., Sarstedt, M., Ringle, C. M., & Ryu, K. (2018). An assessment of the use of partial least squares structural equation modeling (PLS-SEM) in hospitality research. *International Journal of Contemporary Hospitality Management*, 30(1), 514–538.
- Altaweel, M. (2019). The market for heritage: Evidence from eBay using natural language processing. *Social Science Computer Review*, 39(3), 391–415.
- Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research*, 32(4), 1056–1076.
- Andereck, K. L., Valentine, K. M., Vogt, C. A., & Knopf, R. C. (2007). A cross-cultural analysis of tourism and quality of life perceptions. *Journal of Sustainable Tourism*, 15(5), 483–502.
- Bachman, J. S. (2019). A 'synchronised attack' on life: The Saudi-led coalition's 'hidden and holistic' genocide in Yemen and the shared responsibility of the US and UK. *Third World Quarterly*, 40(2), 298–316.
- Bagozzi, R. P., & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- Bloomberg. (2017, June 27). *At \$240 a Pound, the World's original coffee producer is back in business*. Retrieved from <https://www.bloomberg.com/news/articles/2017-06-27/the-best-coffee-in-the-world-now-comes-from-yemen>.
- Brodie, N. (2003). Stolen history: Looting and illicit trade. *Museum International*, 55(3–4), 10–22.
- Brodie, N., & Renfrew, C. (2005). Looting and the world's archaeological heritage: The inadequate response. *Annual Review of Anthropology*, 34, 343–361.
- Brodie, N., & Sabrine, I. (2018). The illegal excavation and trade of Syrian cultural objects: A view from the ground. *Journal of Field Archaeology*, 43(1), 74–84.
- Bryce, D., Curran, R., O'Gorman, K., & Taheri, B. (2015). Visitors' engagement and authenticity: Japanese heritage consumption. *Tourism Management*, 46, 571–581.
- Burns, P., & Cooper, C. (1997). Yemen: Tourism and a tribal-marxist dichotomy. *Tourism Management*, 18(8), 555–563.
- Byrne, D. (2016). The problem with looting: An alternative perspective on antiquities trafficking in Southeast Asia. *Journal of Field Archaeology*, 41(3), 344–354.
- Chin, W. W. (2010). How to write up and report PLS analyses. In *Handbook of partial least squares* (pp. 655–690). Berlin, Heidelberg: Springer.
- Churchill, G. A., Jr. (1979). A paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64–73.
- du Cros, H., & McKecher, B. (2015). *Cultural tourism* (2nd ed.). New York, NY: Routledge.
- Elia, R. J. (1997). Looting, collecting, and the destruction of archaeological resources. *Nonrenewable Resources*, 6(2), 85–98.
- Eom, T., & Han, H. (2019). Community-based tourism (TourDure) experience program: A theoretical approach. *Journal of Travel & Tourism Marketing*, 36(8), 956–968.
- Eslami, S., Khalifah, Z., Mardani, A., Streimikiene, D., & Han, H. (2019). Community attachment, tourism impacts, quality of life and residents' support for sustainable tourism development. *Journal of Travel & Tourism Marketing*, 36(9), 1061–1079.
- Gerbing, D. W., & Anderson, J. C. (1988). An updated paradigm for scale development incorporating unidimensionality and its assessment. *Journal of Marketing Research*, 25, 186–192.
- Graci, S. (2013). Collaboration and partnership development for sustainable tourism. *Tourism Geographies*, 15(1), 25–42.
- Gursoy, D., Ouyang, Z., Nunkoo, R., & Wei, W. (2019). Residents' impact perceptions of and attitudes towards tourism development: A meta-analysis. *Journal of Hospitality Marketing & Management*, 28(3), 306–333.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice hall.
- Hair, J. F., Jr., Matthews, L. M., Matthews, R. L., & Sarstedt, M. (2017). PLS-SEM or CB-SEM: Updated guidelines on which method to use. *International Journal of Multivariate Data Analysis*, 1(2), 107–123.
- Hall, C. M. (1999). Rethinking collaboration and partnership: A public policy perspective. *Journal of Sustainable Tourism*, 7(3–4), 274–289.
- Hardy, S. A. (2016). *Illicit trafficking, provenance research and due diligence: The state of the art*. American University of Rome and University College London, 30th March.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277–1288.
- ICOM. (2019). *Emergency red list of cultural objects at risk – Yemen*. Retrieved from <https://icom.museum/en/ressource/emergency-red-list-of-cultural-objects-at-risk-yemen/>.
- INTERPOL. (2019, September 23). *Protecting cultural heritage through interagency cooperation*. Retrieved from <https://www.interpol.int/en/News-and-Events/News/2019/Protecting-cultural-heritage-through-interagency-cooperation>.
- Jamal, T., & Camargo, B. A. (2018). Tourism governance and policy: Whither justice? *Tourism Management Perspectives*, 25, 205–208.
- Jamal, T., & Stronza, A. (2009). Collaboration theory and tourism practice in protected areas: Stakeholders, structuring and sustainability. *Journal of Sustainable Tourism*, 17(2), 169–189.
- Jordan, L. A., & Jolliffe, L. (2013). *Heritage tourism in the Caribbean: Current themes and challenges*.
- Khalidi, L. (2017). The destruction of Yemen and its cultural heritage. *International Journal of Middle East Studies*, 49(4), 735–738.
- Khoo-Lattimore, C., Mura, P., & Yung, R. (2019). The time has come: A systematic literature review of mixed methods research in tourism. *Current Issues in Tourism*, 22(13), 1531–1550.
- Lamprakos, M. (2015). *Building a world heritage city: Sanaa, Yemen*. Ashgate Publishing, Ltd.
- Lasaponara, R., Leucci, G., Masini, N., & Persico, R. (2014). Investigating archaeological looting using satellite images and GEORADAR: The experience in lambayeque in North Peru. *Journal of Archaeological Science*, 42, 216–230.
- Lee, T. H. (2013). Influence analysis of community resident support for sustainable tourism development. *Tourism Management*, 34, 37–46.
- Lee, L., Petter, S., Fayard, D., & Robinson, S. (2011). On the use of partial least squares path modeling in accounting research. *International Journal of Accounting Information Systems*, 12(4), 305–328.
- Li, P. (2017). *Japanese war crimes*. Routledge.
- Liburd, J. J., & Becken, S. (2017). Values in nature conservation, tourism and UNESCO World Heritage Site stewardship. *Journal of Sustainable Tourism*, 25(12), 1719–1735.
- Li, M., & Cai, L. A. (2012). The effects of personal values on travel motivation and behavioral intention. *Journal of Travel Research*, 51(4), 473–487.
- Live Science. (2019, June 05). *Blood antiquities' looted from war-Torn Yemen bring in \$1 million at auction*. Retrieved from <https://www.livescience.com/65641-yemen-blood-antiquities-investigation.html>.
- López, M. F. B., Virto, N. R., Manzano, J. A., & Miranda, J. G. M. (2018). Residents' attitude as determinant of tourism sustainability: The case of Trujillo. *Journal of Hospitality and Tourism Management*, 35, 36–45.
- Mackintosh-Smith, T. (2014). *Yemen: The Unknown Arabia*. ABRAMS.
- Martin, H. S., de los Salmones Sanchez, M. M. G., & Herrero, Á. (2018). Residents' attitudes and behavioural support for tourism in host communities. *Journal of Travel & Tourism Marketing*, 35(2), 231–243.
- Megeirhi, H. A., Woosnam, K. M., Ribeiro, M. A., Ramkissoon, H., & Denley, T. J. (2020). Employing a value-belief-norm framework to gauge Carthage residents' intentions to support sustainable cultural heritage tourism. *Journal of Sustainable Tourism*, 28(9), 1351–1370.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage.
- Moon, H., & Han, H. (2019). Tourist experience quality and loyalty to an island destination: The moderating impact of destination image. *Journal of Travel & Tourism Marketing*, 36(1), 43–59.
- Myers, M. D. (2013). *Qualitative research in business and management* (2nd ed.). Sage Publications Limited.
- Nicholas, L. H. (1994). *The rape of europe: The fate of europe's treasures in the third reich and the second world war* (Vol. 53). Vintage.
- Nicholas, L., & Thapa, B. (2013). The politics of world heritage: A case study of the pitons management area, st lucia. *Journal of Heritage Tourism*, 8(1), 37–48.
- Nicholas, L. N., Thapa, B., & Ko, Y. J. (2009). RESIDENTS' PERSPECTIVES OF a world heritage site: The pitons management area, st. Lucia. *Annals of Tourism Research*, 36(3), 390–412.
- Nunkoo, R., & Ramkissoon, H. (2011). Developing a community support model for tourism. *Annals of Tourism Research*, 38(3), 964–988.
- Nunkoo, R., Ramkissoon, H., & Gursoy, D. (2013). Use of structural equation modeling in tourism research: Past, present, and future. *Journal of Travel Research*, 52(6), 759–771.
- Nunkoo, R., & So, K. K. F. (2016). Residents' support for tourism: Testing alternative structural models. *Journal of Travel Research*, 55(7), 847–861.
- Olya, H. G., Alipour, H., & Gavilyan, Y. (2018). Different voices from community groups to support sustainable tourism development at Iranian world heritage sites: Evidence from bisotun. *Journal of Sustainable Tourism*, 26(10), 1728–1748.
- Olya, H. G., & Gavilyan, Y. (2017). Configurational models to predict residents' support for tourism development. *Journal of Travel Research*, 56(7), 893–912.
- Panella, C. (2014). Looters or heroes? Production of illegality and memories of 'looting' in Mali. *European Journal on Criminal Policy and Research*, 20(4), 487–502.
- Patuelli, R., Mussoni, M., & Candela, G. (2013). The effects of world heritage sites on domestic tourism: A spatial interaction model for Italy. *Journal of Geographical Systems*, 15(3), 369–402.
- Polner, M. (2019). Preventing illicit trafficking of cultural objects: A supply chain perspective. In *The palgrave handbook on art crime* (pp. 769–793). London: Palgrave Macmillan.

- Ransom, M. (2014). *Silver treasures from the Land of Sheba: Regional Yemeni Jewelry*. Amer Univ in Cairo Press.
- Rasoolimanesh, S. M., & Jaafar, M. (2017). Sustainable tourism development and residents' perceptions in World Heritage Site destinations. *Asia Pacific Journal of Tourism Research*, 22(1), 34–48.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). *SmartPLS 3*. Bönningstedt: SmartPLS. Retrieved from <http://www.smartpls.com>.
- Segota, T., Mihalić, T., & Kusćer, K. (2017). The impact of residents' informedness and involvement on their perceptions of tourism impacts: The case of Bled. *Journal of Destination Marketing & Management*, 6(3), 196–206.
- Seraphin, H., Sheeran, P., & Pilato, M. (2018). Over-tourism and the fall of Venice as a destination. *Journal of Destination Marketing & Management*, 9, 374–376.
- Simpson, K. (2001). Strategic planning and community involvement as contributors to sustainable tourism development. *Current Issues in Tourism*, 4(1), 3–41.
- Steen, M. K. (2008). *Collateral damage: The destruction and looting of cultural property in armed conflict*. From the Selected Works of Matthew K Steen III.
- Su, M. M., & Wall, G. (2014). Community participation in tourism at a world heritage site: Mutianyu Great Wall, Beijing, China. *International Journal of Tourism Research*, 16(2), 146–156.
- The Washington Post. (2019, January 02). *The U.S. art market for stolen antiquities from Yemen must be shut down*. Retrieved from https://www.washingtonpost.com/opinions/the-us-art-market-for-stolen-antiquities-from-yemen-must-be-shut-down/2019/01/01/c3df44aa-db9d-11e8-85df-7a6b4d25cbbb_story.html.
- The WSJ. (2017, May 31). *Prominent art family Entangled in ISIS antiquities-looting investigations*. Retrieved from <https://www.wsj.com/articles/prominent-art-family-entangled-in-investigations-of-looted-antiquities-1496246740>.
- The Guardian. (2016, December 03). *Looted Palmyra relics seized by Swiss authorities at Geneva ports*. Retrieved from <https://www.theguardian.com/world/2016/dec/03/looted-palmyra-relics-seized-by-swiss-authorities-at-geneva-ports>.
- Timothy, D. J., & Nyaupane, G. P. (Eds.). (2009). *Cultural heritage and tourism in the developing world: A regional perspective*. Routledge.
- Um, N. (2011). *The merchant houses of mocha: Trade and architecture in an Indian ocean port*. University of Washington Press.
- UNESCO. (1954). *Hague convention for the protection of cultural property in the event of armed conflict*. Retrieved from <http://www.unesco.org/new/en/culture/themes/armed-conflict-and-heritage/convention-and-protocols/1954-hague-convention/>.
- UNESCO. (1982). *Yemen*. Retrieved from <https://whc.unesco.org/en/statesparties/ye>. (Accessed 15 November 2019).
- UNESCO. (2014). *Anti-trafficking Campaign: Your actions count – help fight trafficking!*. Retrieved from <http://www.unesco.org/new/en/culture/themes/illicit-trafficking-of-cultural-property/meetings/forums-seminars-and-information-meetings/unwto-campaign/>.
- Vella, C., Bocancea, E., Urban, T. M., Knodell, A. R., Tuttle, C. A., & Alcock, S. E. (2015). Looting and vandalism around a World Heritage Site: Documenting modern damage to archaeological heritage in Petra's hinterland. *Journal of Field Archaeology*, 40(2), 221–235.
- Warnke, U. (2019). 'Blood antiquities': The problem of illicit trafficking for tourism. In *Yellow tourism* (pp. 119–133). Cham: Springer.
- Zhao, S., Nyaupane, G. P., & Timothy, D. J. (2016). Residents' preferences for historic preservation criteria and their determinants: An American example. *Journal of Heritage Tourism*, 11(4), 395–410.



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