Stolen history: community concerns towards the looting of cultural heritage and its tourism implications

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, is the problem of looted cultural heritage. This study proposes a research framework combining conceptual and empirical approaches to explore the previously neglected concerns of local communities towards the smuggling 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 significantly associated with: 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 academia.

Keywords: Cultural property, heritage looting, community participation, sustainable tourism, Yemen

1. Introduction

Millions of visits are made each year to museums and historical monuments in countries across the globe. Despite the efforts of authorities 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 – listings of potentially endangered cultural objects in Asia, South America, Africa and the Middle East. The losses have taken a heavy toll on the infrastructure of these countries across these regions and undermine cultural and heritage values (ICOM, 2019). Inadequate security, political conflicts and/or economic instability impede the capacity of countries in these areas to restore and safeguard their lost cultural assets. Yemen is a recent appearance at the top of the list, indicative of the endemic vandalism of its rich culture and heritage, dating back to the ancient world (3000 BCE), as shown in Appendix A.

A Live Science report (2019) has stated that dozens of distinguished exemplars of authentic Yemeni civilisation, such as antiques, statues, monuments and coins, were looted between 2015 and 2018. The smuggled items generated over US$6 million at auctions in the USA, driving the governments of both countries to take action based on the Hague Convention for the Protection of Cultural Property (1954). Meanwhile, the United Nations World Tourism Organisation (UNWTO) launched global campaigns to prevent this 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, looting of cultural heritage continues to escalate, whilst flourishing art houses, museums and auction centres in several European countries and the USA continue to exhibit stolen cultural properties (The Washington Post, 2019; Altaweel, 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. These impact directly on vulnerable communities by eliminating heritage, legacy and treasures, and cause extreme harm to aesthetic, historical and spiritual characteristics to the detriment of present and future generations (Byrne, 2016; du Cros & McKercher, 2015). In charting the evolution

51 of tourism in Yemen it is vital to note its reliance on heritage and cultural resources that
52 represent the homeland of the Arabian civilisation (Mackintosh-Smith, 2014). The earliest
53 evaluations of tourism development in Yemen by contemporary tourism scholars emphasized
54 the importance of cultural heritage objects as a tourism resource (Burns & Cooper, 1997).
55 Furthermore, Yemeni national identity draws heavily on the attachment of local communities
56 to their culture, food, history, customs and traditions (Mackintosh-Smith, 2014). However, the
57 focal role of local communities in protecting cultural properties has not been fully incorporated
58 into the initiatives of authorities and nongovernmental organisations (NGOs). Identifying the
59 complex ambiguities and nexus between community participation and sustainable development
60 during periods of conflict remains an enduring challenge for the tourism sector (Su & Wall,
61 2014).
62   Cultural and heritage products are essential components of tourism and give rise to the
63 phenomenon of cultural tourism (du Cros & McKercher, 2015). This concept proposes a
64 potential focus for communities around quality of life (Andereck et al., 2007). When managed
65 effectively it takes account of sustainable tourism principles and contributes to the broadening
66 of environmental and social values (Jamal & Stronza, 2009). The phenomenon is widely and
67 explicitly manifest in the process of managing heritage materials, preserving identity and
68 originality with prospective local benefits (Zhao, Nyaupane & Timothy, 2016). Bryce et al.
69 (2015) provided empirical confirmation of the roles for authentic heritage tourism in creating
70 memorable travel experiences. Tourism competitiveness is diminished in the absence of
71 tangible and/or intangible heritage. Visitors to historical and archaeological destinations
72 perceive such notions actively (Bryce et al., 2015; Zhao et al., 2016). As indicated in the
73 preceding discussion, sustainability can guide cultural and heritage tourism and underpins the
74 protection of identities and authenticity by integrating stakeholders into local communities.
75   Scholars have addressed the phenomenon of looting cultural heritage in the context of
76 archaeology, history, geography, museology, anthropology and law (Brodie, 2003; Patuelli et
77 al., 2013; Panella, 2014; Lasaponara et al., 2014; Vella et al., 2015; Hardy, 2016; Warnke,
78 2019; Polner, 2019). However, there is a dearth of tourism specific studies and its potential
79 impacts on sustainable tourism development have been largely unexplored. Although tourism
80 scholars have identified challenges such as overtourism, congestion, climate change and
81 stakeholder engagement (Gursoy, Ouyang, Nunkoo & Wei, 2019), no comprehensive efforts
82 have been made to connect cultural heritage looting with tourism planning and sustainability.
83 Consequently, it is important to unravel the repercussions of this issue on tourism. The current
84 study aims to identify local community concerns (e.g., negative impacts) towards the
85 phenomenon of looting cultural heritage by developing a validated scale. It also examines the
86 potential impact of the explored constructs on a conceptual structural model in the context of
87 Yemen consisting of direct protection management, trust in government, community
88 participation and sustainable tourism support. The study provides insights about this complex
89 topic for scholars, governments and tourism policy makers by adopting a psychometric analysis
90 and a research framework that combines qualitative and quantitative approaches.
91
2. Literature Review
2.1 Global evolution of cultural heritage looting
94   Historically, the phenomenon of looting items or belongings refers to previous acts
95 committed by nations, typically during natural disasters, riots, occupations or winning battles.
96 Such actions have extended to all types of belongings in targeted nations, including food,
97 materials, weapons, and furniture (Brodie, 2003). Nations that are based on previous
98 civilisations have been particularly vulnerable to targeting by thieves because of their valuable
99 possessions. Egyptian civilisation is notable for loosing many treasures and historical artefacts.
100 Even prior to Alexander the Great's invasion of Egypt in 332 BCE, the pharaohs' tombs had

been subjected to plundering by robbers (Elia, 1997). Various tragic occurrences through the 20th century prompted growing global awareness about the preservation of cultural heritage. The so-called colonial period was a dark era and documentation has witnessed massive heritage destruction and looting across the world (Brodie, 2003). Examples included the actions towards European heritage of Nazi Germany and the Soviet Union, of the British Empire towards its colonies in Asia, the invasion of Asia by the Japanese Empire and the colonisation of Latin American by European conquerors (Nicholas, 1994; Brodie & Renfrew, 2005; Li, 2017). Moreover, the massive damage to heritage and archaeological sites that was caused by the two World Wars prompted international efforts to agree on the protection of historical and cultural objects during wartime. This eventually led to the 1954 Hague Convention for the Protection of Cultural Property (UNESCO, 1954).

Despite globally enforced protections for cultural objects, the illicit trade in antiques and historical objects increased along with post-War economic and tourism development. Cultural heritage traffickers involved in global organised crime have targeted countries as diverse as: 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 perpetuates the enrichment of suppliers and dealers from revenues generated in targeted countries. Business increases when destinations such as many in the Middle East, experience armed conflict or unstable politics and economies (Elia, 1997). Conversely, the recipients of stolen collections are typically Western nations such as the USA, and European countries including the UK. Some destination countries have imposed relatively more stringent cultural property laws (Brodie, 2003). Dealing with the issue of looting cultural heritage is not a one-sided responsibility but a global challenge that requires concerted international actions through different channels and strategies, such as cooperation in fighting other global threats (i.e. drug smuggling and human trafficking).

2.2 Pillaging of Yemeni cultural and heritage treasures

Yemen has witnessed a gradual plundering of its legacy and heritage properties dating back to the period 2,000–3,000 BCE (Khalidi, 2017). A report entitled 'Blood Antiques' indicated that over 100 Yemeni artefacts - ancient manuscripts, inscriptions, coins, statues and historical crafts – that were sold in art auctions during the past years in the USA, Europe and the United Arab Emirates (Live Science, 2019). Similarly, after targeting by Saudi-UAE military airstrikes backed by western weapons due to political conflicts ongoing there, several national museums and historical sites in Aden, Dhamar, Zabid and Taiz cities have been partly or completely burglarised since 2015 (Bachman, 2019). As shown in Figure 1, the cultural heritage properties of Yemen have been targeted because of the priceless antiquities from inhabitants of its millennia-old civilisation that has been highlighted several times in the many holy books, including the Hebrew Bible, the ancient scriptures of Greeks and Romans and Islam's holy book, the Qur'an. These sources highlighted the wonders of the Queen of Sheba from the Kingdom of Saba (1000 BCE) in the legendary story of Balqis and King Solomon. Moreover, Yemen is the original homeland of the utmost ancient Arabian civilisations, such as the Himyarite, Qataban, Ma'in, Awsan and Hadramout kingdoms (UNESCO, 1982). These form the roots of authentic Arabian tribes that ruled the region for centuries (Mackintosh-Smith, 2014; Ransom, 2014). The ancient Yemeni civilisation was a major hub that controlled the ancient world's trade in spices and frankincense between the east and the west, significantly enriching local cultures and producing unique traditions (Um, 2011). For the aforementioned reasons, looters and thieves have strategically targeted Yemeni heritage treasures during armed conflict, exploiting the political situation and inadequate security for economic benefit.

150　　　　The international community has acknowledged the rise of smuggling of Yemeni
151　heritage antiques. In 2016, for example, Swiss authorities seized stolen Yemeni relics in
152　Geneva (The Guardian, 2016). The Swiss government also investigated suspects involved in
153　illicit trade activities and imposed import restrictions to enhance protection for cultural items
154　(The Wall Street Journal [WSJ], 2017). Furthermore, a free gallery of art events was staged in
155　Washington, DC to increase public awareness about cultural heritage threats in Yemen.
156　Entitled 'A Glimpse of Ancient Yemen' it exhibited collections of treasures from Yemeni
157　civilisation. The Yemeni government recently issued an official warning against the growing
158　illicit market and worked with the United Nations (UN) and the USA to investigate, block and
159　track smuggled Yemeni antiquities (The Washington Post, 2019). The authorities' actions to
160　restrain such illegal activities have partially helped to secure Yemen's cultural and heritage
161　treasures. The current study investigates the role of government actions and protection
162　strategies to prevent the looting of Yemen's cultural properties in the tourism context.
163
164　　　　　　　　　　　　　**Please insert Figure 1 here**
165
166　*2.3 Social exchange theory (SET)*
167　SET is a widely accepted construct that captures interactions between individuals and groups
168　(Gursoy et al. 2019). It explains the dynamic process of economic, sociocultural, and
169　environmental interests based on positive/negative impacts. Scholars have made a number of
170　evaluations of stakeholders' interactions during the tourism development. Nunkoo and So
171　(2016) found that positive impact (e.g., economic benefits) has a positive influence on
172　community support for tourism activities. It is commonplace for communities to reject
173　incubations of tourism development when there is a perception of negative impacts (e.g.,
174　pollution, heritage destruction). There is a strong association between behaviours and
175　intentions and perceived community benefits/losses through positive and/or negative impacts
176　(Andereck et al., 2005; Lee, 2013). However, Gursoy et al. (2019) has noted a lack of scholarly
177　tourism focus on community responses associated with negative impacts (e.g., sociocultural
178　losses). Locals are less supportive when tourism development impinges on their cultural
179　identities (Lee, 2013; Megeirhi et al., 2020). Alazaizeh et al. (2016) explored the impact of cu
180　ltural heritage values on raising public awareness about the process of preservation.
181　Community concerns are triggered in the face of potential losses to identities and culture when
182　local residents are aware of the consequences, they take greater responsibility for protecting
183　cultural heritage (Lee, 2013; Gursoy et al., 2019; Megeirhi et al., 2020). Thus, considering the
184　negative impact of heritage looting, community members' responses are reflected their
185　concerns toward historical and cultural legacy.
186
187　*2.4 Collaboration theory*
188　Collaboration is a flexible and dynamic process engaging a multiplicity of stakeholders in
189　working together to address issues or problems (Jamal & Stronza, 2009). There have been
190　extensive discussions of its applications to tourism and sustainable development (Hall, 1999;
191　Gursoy et al., 2019). Collaboration is a critical element in the formation of solid partnerships
192　in pursuing achieve best practice between authorities, local communities, and tourism agencies
193　(Hall, 1999). Variations in collaboration lead to a strengthening or weakening of the
194　relationships between stakeholders, eventually impacting on the coherence and consistency of
195　productivity (Jamal & Stronza, 2009). Fluctuations often occur when heritage and cultural
196　values are involved. Endeavours to protect heritage by governmental agencies often confront
197　how locals evaluate the consequences of such practices (Nunkoo & Ramkissoon, 2011; Jamal
198　& Camargo, 2018). It either builds or undermines trust between local residents and
199　governments. Scholars have addressed such interactions and/or conflicts at various stages of

tourism development in different countries – before, during and/or after (Gursoy et al., 2019). When managing heritage sites, local historical and spiritual values are highly sensitive (du Cros & McKercher, 2015). However, sustainable practices to protect heritage and culture will not be achievable without local community collaborations (Hall, 1999; Nunkoo & Ramkissoon, 2011). Given this background, combating heritage looting will require enhancing trust and partnership through an active alliance with the local community. Locals are negatively disposed to supporting sustainable tourism when there is a perception of cultural loss (i.e., traditions). Meanwhile, their response to sustainable practices (i.e., heritage protection) might critically different in the issue of heritage looting (Gursoy et al., 2019). Accordingly, the association between tourism development, cultural preservation and community behaviours imply enacting a sustainable collaboration.

2.5 Community participation and sustainable tourism

Community participation refers to the number of local residents involved in tourism development, including decision-making. It indicates the engagement of local residents in supporting and enhancing tourism establishments (Eom & Han, 2019; Moon & Han, 2019; Simpson, 2001). Lee (2013) asserted that sustainable tourism development requires community involvement in strategic planning. Likewise, Simpson (2001) reported that local involvement is critical to community-based tourism; locals can manage tourism implementation and progress either fully or partially. Nunkoo and Ramkissoon (2011) identified a significant role for the community in supporting tourism development. Šegota, Mihalič and Kuščer (2017) emphasised the importance of positive community attitudes to tourism development, including transparent decision-making. They also found 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 protecting cultural heritage encouraged locals to participate in evaluations. It is evident that community engagement is integral to both cultural heritage protection and 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 elucidated the essential role of 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 losing their cultural heritage values (Seraphin et al., 2018). Though it is possible to restore damaged heritage, the financial costs are high and the process can be 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; Šegota et al., 2017). Heritage looting raises apprehensions within the community, because smuggling cultural property damages both symbols and dignity (Steen, 2008). However, the threat posed by heritage looting to sustainable tourism has been largely unrecognised. 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 Hypotheses development

To plan effectively for the protection of culture, cooperation is essential between authorities, NGOs and local communities (Graci, 2013). To smooth such mutual interests the roles of direct management actions and trust in government are critical. Nunkoo and So (2016) determined the functionality of government actions, sustainable practices and trust of local

residents, which depend on the prevailing level of community empowerment. The ensuing social, economic, or environmental benefits will determine whether such actions strengthen or weaken the relationship. 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) prompt a loss of trust amongst locals in their government, thereby increasing their responsibilities towards the protection process (Alazaizeh et al. 2016; Nunkoo & Ramkissoon, 2011). Trust is critical in constructing coherent collaborations between the relevant parties (Hall, 1999). There is overwhelming evidence within tourism of government policies to increase or decrease local community behaviours (i.e., heritage preservation orientation) (Gursoy et al., 2019). Olya, Alipour and Gavilyan (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.

However, sustainability is significantly affected by residents' sense of belonging in heritage areas (Eslami et al., 2019). By contrast, the involvement of local communities in preserving their cultural assets exerts an intangible influence on their attitudes (Su & Wall, 2014). Gursoy et al. (2019) indicated the homogeneity of the perceived 'positive impact' of locals in supporting tourism progress, whilst coverage of the perceived 'negative impact' remains limited in the tourism literature. Concerns about the loss of heritage (e.g., authenticity, identity) and recognition of cultural values (e.g., history) stimulate local communities to face potential threats (Megeirhi et al., 2020). It appears as if negative impacts (i.e., cultural and heritage losses) trigger active responses from the local community to government policies, thereby shaping their attitudes and behaviours. There is currently insufficient integration between local communities, governments, and international initiatives in fighting heritage looting, constituting a major drawback to combating this illegal market (Polner, 2019; INTERPOL, 2019). With cultural tourism growing pre-pandemic, alongside the incidence of heritage looting there is an evident dissonance in the interplay between sustainable development and society (Patuelli et al., 2013; Martín et al., 2018; Altaweel, 2019). From a theoretical perspective, 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 investigation using a mixed method approach is divided into two major phases (Khoo-Lattimore et al., 2019). The first phase entails the adoption of 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 cultural artefact smuggling. 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 their 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 its 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 Figure 2, Churchill's (1979) procedures and Gerbing and Anderson's (1988) guidelines were used to develop and estimate the associations of the structural model.

Please insert Figure 2

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. They examined only reputable international sources published in English between 2015 and 2019 with a view to restricting the sample. 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 to ensure inclusion of the highest number of sources between November and December 2019 (Hsieh & Shannon, 2005). Semi-structured interviews were also conducted with 20 local residents of historical cities in Yemen. Employing a team of native 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 1,000 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 of 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

349 validity of the information. MAXQDA (2020) software was used as the primary qualitative
350 data analysis tool.
351
352 **3.3 Empirical approach**
353 *3.3.1   Measurement and survey development*
354   The prior observation process of local community concerns generated 36 items that were
355 constructed under 6 variables. To verify the clarity of these items, two cultural tourism experts
356 were asked to check the proposed items. Slight improvements were suggested relating to terms
357 and linguistic issues. Supplementary valid constructs were also adapted from previous studies
358 and included direct protection management, trust in government, community participation and
359 sustainable tourism support, with 4 items for each. The authors have made slight modifications
360 to the measurements in the adaptation process to suit the study context. The later developed
361 constructs were acquired from Alazaizeh et al. (2016), Nunkoo and So (2016), Olya and
362 Gavilyan (2017), Nicholas, Thapa and Ko (2009), Andereck et al. (2005) and López et al.
363 (2018). All of the developed study items were measured using a seven-point Likert scale
364 ranging from 1 (strongly disagree) to 7 (strongly agree). A field-based survey was adopted
365 using non-probability convenience sampling. The survey questionnaire was initially designed
366 in English and then translated into Arabic, which is the official speaking language in Yemen.
367 Thus, a blind back-translation technique was used and eventually verified by a native-speaking
368 tourism academic. In this context, the survey questionnaire design consisted of three sections.
369 Firstly, the study's purpose was highlighted for each participant using textual and pictorial
370 content. Secondly, the measurement questions were presented in two subparts. Thirdly, the
371 demographic profiles of the participants were obtained. To verify the validity of the survey
372 contents, a preliminary pilot study was conducted with approximately 10 participants to ensure
373 the clarity of the questions and the overall survey design.
374
375 *3.3.2   Data collection and participant profile*
376   The survey collection was conducted in the old city of Sana'a (WHS) because it is an
377 invaluable landmark in Yemeni heritage and tourism. Sana'a is one of the world's oldest living
378 cities and played a significant role in ancient human civilisation around 3000 BCE (e.g.
379 Ghumdan Palace) and during the flourishing of the Islamic Era in the 7th–8th century
380 (UNESCO, 1982). It was a major global centre for trading, agriculture and architecture and
381 hub of the Islamic enlightenment with more than 100 mosques and 6,000 mud brick multi
382 storey towers (Lamprakos, 2015). Prior permission was obtained from the local authority
383 concerning compliance with legal protocols. Well-trained local students from the University
384 of Sana'a assisted the data collection. The survey covered most of the old city's remarkable
385 sites and markets. Participants were approached in their local business shops or during social
386 gatherings. A total of 300 local residents participated in the survey with all forms being
387 returned complete and considered suitable for final analysis. The sample size is sufficient to
388 allow the application of SEM criteria (Hair et al., 1998).
389   The sample consisted of 67% (201) males and 33% (99) females. Their ages were
390 grouped as follows: 35% (105) 19–29 years old, 29.3% (88) 30–39 years old, 19.7% (59) 40–
391 49 years old and 16% (48) 50 years old and above. Household type was as follows: 51% (153)
392 were owners, 44.7% (134) were renters and 4.3% (13) belonged to others. With regard to
393 educational level, 41% (123) completed high school, 27.3% (82) completed less than high
394 school, 17.3% (52) had a 2-year community college degree, 10.7% (32) were university degree
395 holders and 3.7% (11) were holders of higher graduate degrees. The participants' marital status
396 was as follows: 53.7% (161) were married, 40.3% (121) were single and 6% (18) belonged to
397 others. In addition, the respondents' jobs were 27.7% (83) public sector employees, 25% (75)
398 were students, 20.7% (62) were private sector employees, 15.3% (46) were freelancers/jobless

399 and 11.3% (34) were merchants. For their duration of stay in this heritage city, the majority of
400 the respondents, i.e. 53.7% (161) reported staying there for over 10 years. Lastly, the duration
401 time for completing the field survey questionnaires was between January and February 2020.
402
403 *3.3.3 Dual analysis using CB-SEM and PLS-SEM*

404   The use of SEM analysis through CB or PLS has been insightful in the tourism literature
405 because of its capacity to estimate developed structural model paths and coefficients (Lee et
406 al., 2011; Hair et al., 2017). Each application has a unique setting for interpreting the critical
407 consequences of data sets. However, scholars from different fields still lack sufficient
408 awareness of how selecting an appropriate analysis tool can provide a completely adequate
409 research framework (Ali et al., 2018). CB-SEM is sufficient to estimate the developed model
410 based on covariances, while PLS-SEM is more to explain the variances. (Ali et al., 2018). It is
411 necessary to understand the features of diverse analyses that achieve the study objectives which
412 might not apply to all structural models (Hair et al., 2017). It is probably inadvisable to consider
413 dual analysis when the design of the structural model is complex (e.g., reflective-formative)
414 (Ali et al., 2018). The model developed in the current study is evaluated by merging CB-SEM
415 and PLS-SEM to diagnose ambiguities beyond the functionality of both tools in a dual analysis
416 process (Nunkoo et al., 2013; Ali et al., 2018). Although dissimilarity of using both analytical
417 tools are notable in processing structural data. Al-Ansi, Han, Kim and King (2020) confirmed
418 the consistency of both tools empirically in developing a scale. The present study advances
419 current analysis usability in tourism to the next level by providing insights into and effective
420 solutions for complicated issues confronting the industry. The authors proceed to analyze the
421 data with SPSS® Amos™ 24.0 and SmartPLS 3.2.9 software.
422
423 **4. Findings**
424 **4.1 Conceptual approach**

425 *4.1.1 Content analysis CA*
426   The authors used a word combination technique with 3 word settings. Out of a total of
427 30,418 words, 2,761 combination words were established from 35 articles. To narrow down
428 wording frequency, the top 50 repeated words that emerged in the articles were activated prior
429 to merging concepts with similar contextual meanings. Amongst the 50 words, the 20 most
430 frequent combination words were determined. A basis for the articles' contents was established
431 to identify potential terms and issues frequently discussed in media reports (Hsieh & Shannon,
432 2005). The final 20 most common words included the following: 'The United States',
433 'Antiquities and Museums', 'Looting and Trafficking', 'The Middle East', 'Around the World',
434 'Trafficking of Cultural', 'National Museum of', 'The Arabian Peninsula' and 'Queen of
435 Sheba'. Conceptually, we classified these words into three major categories. The first category
436 [Targeted destinations] included words such as 'The Middle East' and "The Arabian Peninsula'.
437 The second category [Targeted properties and actions] can be detected in words such as
438 'Trafficking of Cultural', 'Queen of Sheba', 'Looting and Trafficking', 'Around the World'
439 and 'National Museum of'. The third category [Recipient destinations] strongly indicates the
440 places and host markets where smuggled artefacts are sold, such as 'The United States'. The
441 three categories provide a base to progress an observation process that identifies local resident
442 responses.
443
444 *4.1.2 Semi-structured interviews*
445   The authors determined local community concerns and feelings towards the topic of looting
446 heritage artefacts. During the interviews, the authors observed consensus about the destruction
447 and intended actions to eradicate their culture and history and its potential impacts on future

448 tourism growth. It is noted earlier that heritage tourism provides a primary social and economic
449 structure for local communities in Yemen (Burns & Cooper, 1997; UNESCO, 1982). The
450 absence of cultural products will place obstacles in the way of developing its national identity
451 and quality of life. The following statements were selected to explain this notion.

453 *...While we are proud of our distinguished civilisation and culture, which root back to the*
454 *son of Noah, Sam, from the period after the great flood, others find a way to destroy this legacy,*
455 *the local people need to stand up together to stop such irresponsible actions.*
456 (Ali, 29 years old)

458 *...When I was in elementary school, I got a chance to visit the National Museum of Sana'a.*
459 *The first instruction given to us was do not touch or damage any antique or artefact. Such act*
460 *is prohibited. Today, these treasures are stolen and brought outside the country, eliminating*
461 *their historical value.*
462 (Yahia, 23 years old)

464 *...I remember in the late 1990s, many Westerners visited historical places in Sana'a, Ibb*
465 *and Marib, including Awwam Temple (i.e. Queen Bilqis Ruins). They claimed they were*
466 *archaeologists. Since then until now, some heritage objects have disappeared. We cannot trust*
467 *anyone at all.*
468 (Khalid, 49 years old)

470 *...I never expected that the international community in the 21st century is still incapable of*
471 *stopping such illegal activity. Unfortunately, it is an awful crime against culture that shows us*
472 *the dark side of the era that we are living in.*
473 (Saeed, 44 years old)

475 [with a deep breath] *...the time we struggle to save our families' living expenses and daily*
476 *work to preserve our nation and cultural symbols, we are shocked by such an illicit trade that*
477 *demolishes everything. I cannot foresee how our economic and social lives will turn out in the*
478 *future.*
479 (Nasir, 38 years old)

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

488 **Please insert Table 1**
489 **4.2 Empirical approach**

490 *4.2.1 Exploratory factor analysis (EFA)*
491 EFA was initially performed using the principal component analysis technique and the
492 promax method to identify local community concern constructs towards the heritage looting
493 phenomenon. A total of 36 items was captured. Interestingly, all the developed items were
494 retrieved completely and loaded above 0.60 (Li & Cai, 2012). Thus, no item was excluded in
495 the process. The retained items were generated in 6 constructs. As presented in Table 1, the
496 Kaiser–Meyer–Olkin (KMO) value was 0.924 and Bartlett's test of sphericity was highly
497 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.

Please insert Table 2

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: χ^2 = 1009.750, df = 573, p < .000, χ^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.

Please insert Table 3
Please insert Table 4

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: χ^2 = 1967.557, df = 1252, p < 0.000, χ^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).

547   A second evaluation step of the measurement model involving two sub-estimation levels
548 covered convergent and discriminant validities as suggested by Ringle et al. (2015). Hence, the
549 convergent estimation involved CR values ranging from 0.878 to 0.923, which were
550 determined as excellent thresholds values; meanwhile, the AVE scores were between 0.593
551 and 0.735, which supported the required standards (Bagozzi & Yi, 1988; Hair et al., 1998), as
552 indicated in Table 3. To estimate discriminant validity, a heterotrait–monotrait ratio (HTMT)
553 criterion was adopted, achieving perfect scores between 0.099 and 0.675, which were below
554 the 0.9 threshold suggested by Henseler et al. (2015), as exhibited in Table 4.
555
556   **Please insert Table 5**
557
558 *4.2.4 Dual analysis of structural model (CB-SEM versus PLS-SEM)*
559   Firstly, a CB-SEM statistical technique was performed to test the developed model
560 associations. As shown in Figure 3, the goodness-of-fit results achieved excellent values as
561 follows: $\chi^2 = 2002.784$, df $= 1257$, p < 0.000, $\chi^2/df = 1.593$, RMSEA $= 0.045$, CFI $= 0.912$, IFI
562 $= 0.912$, TLI $= 0.907$ and adjusted goodness-of-fit index (AGFI) $= 0.800$. As predicted in
563 Hypotheses 1, 3 and 5, the relationships of the constructs were positively and significantly
564 supported as follows: H1: β Cultural heritage looting phenomenon $\rightarrow$ Direct protection management $= 0.168$, t $= 2.501$,
565 p < 0.05; H3: β Direct protection management $\rightarrow$ Community participation $= 0.238$, t $= 3.564$, p < 0.01 and H5:
566 β Community participation $\rightarrow$ Sustainable tourism support $= 0.807$, t $= 9.455$, p < 0.01. Conversely, the path
567 relationships were negatively and significantly affected in in Hypotheses 2 and 4: H2: β Cultural
568 heritage looting phenomenon $\rightarrow$ Trust in government $= -0.300$, t $= -4.502$, p < 0.01 and H4: β Trust in government $\rightarrow$
569 Community participation $= -0.202$, t $= -3.118$, p < 0.01). The total explanation power of 'Direct
570 protection management' was $R^2 = 0.028\%$, 'Trust in government' was $R^2 = 0.090\%$. Meanwhile,
571 the R^2 values for 'Community participation' and 'Sustainable tourism support' were 10.2% and
572 65.2%, respectively.
573   Secondly, the PLS-SEM approach was established. As shown in Figure 4, the findings
574 indicated sufficient scores that are consistent with the CB-SEM outcomes. In Hypotheses 1, 3
575 and 5, the scores of the construct path coefficients were positively and significantly supported
576 as follows: H1: β Cultural heritage looting phenomenon $\rightarrow$ Direct protection management $= 0.148$, t $= 2.140$, p < 0.05;
577 H3: β Direct protection management $\rightarrow$ Community participation $= 0.199$, t $= 3.174$, p < 0.01 and H5: β Community
578 participation $\rightarrow$ Sustainable tourism support $= 0.680$, t $= 18.816$, p < 0.01. Similarly, the associations of the
579 constructs were negatively and significantly affected in Hypotheses 2 and 4, as follows: H2: β
580 Cultural heritage looting phenomenon $\rightarrow$ Trust in government $= -0.267$, t $= 5.347$, p < 0.01 and H4: β Trust in government
581 $\rightarrow$ Community participation $= -0.173$, t $= 2.881$, p < 0.01). Moreover, the total variance of the
582 endogenous constructs was accounted for, as follows: Direct protection management $= 0.19\%$,
583 Trust in government $= 0.67\%$, Community participation $= 0.63\%$ and Sustainable tourism
584 support $= 46\%$. Furthermore, the predictive relevance (Q^2) results achieved acceptable scores
585 amongst constructs. That is, Direct protection management $= 0.012$, Trust in government $=$
586 0.049, Community participation $= 0.042$ and Sustainable tourism support $= 0.289$ (Chin, 2010).
587   By contrast, the higher-order construct of the structural model 'Cultural heritage looting
588 phenomenon' obtained excellent coefficient scores with the explored lower-order model
589 constructs in both statistical approaches. For CB-SEM (Historical and humanity legacy $= 0.703$,
590 p < 0.01; National identity and symbolism $= 0.761$, p < 0.01; Authenticity and originality $=$
591 0.749, p < 0.01; Ecological and environmental $= 0.780$, p < 0.01; Civilisation and art $= 0.813$,
592 p < 0.01 and International policy and rules $= 0.634$, p < 0.01). For PLS-SEM (Historical and
593 humanity legacy $= 0.719$, p < 0.01; National identity and symbolism $= 0.766$, p < 0.01;
594 Authenticity and originality $= 0.758$, p < 0.01; Ecological and environmental $= 0.792$, p < 0.01;
595 Civilisation and art $= 0.794$, p < 0.01 and International policy and rules $= 0.697$, p < 0.01). In
596 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.

Please insert Figure 3
Please insert Figure 4

5. Discussion

This study has investigated an issue that impacts on community tourism development globally though has not been discussed 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 cultural object looters 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 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 (UNESCO, 2014; Altaweel, 2019; 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, Thapa & Ko, 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 over past centuries between local communities, their identity and culture (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 (Um, 2011; Bloomberg, 2017). 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

13

647 local culture, harming its social, environmental and economic growth. The previous tourism
648 literature reported the crucial role played by heritage and cultural physical products in
649 establishing dynamic tourism development that completely fosters tourism sustainability
650 (Timothy & Nyaupane, 2009; Jordan & Jolliffe, 2013). The continuous practice of looting
651 cultural heritage results in a decline of trust between authorities and local communities. Local
652 residents clearly do not rely on governments and other stakeholders to assume responsibility
653 in combating the illicit trade of cultural objects (Jamal & Stronza, 2009). The authorities play
654 a key role in tracking the illicit trade process and identifying smuggled artefacts; hence, the
655 local government is recommended to declare an emergency alert to the international
656 community to help stop cultural objects from passing through their borders by imposing
657 rigorous screening processes and sharing related information and events with the public to
658 reduce further loss of confidence.

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

673   The structural model results also highlight the intention of local communities to protect
674 their heritage. Thus, they should be considered during the process of decision making and
675 management (Zhao et al., 2016). Moreover, providing logistical and financial support is
676 important for facilitating the partnership, such as funding private sector projects related to
677 heritage preservation. In general, the lack of collaboration between authorities and local
678 communities significantly increases the act of cultural heritage looting, considerably expanding
679 the gap between stakeholders in establishing constant sustainable tourism development. By
680 contrast, engaging the local community is a focal component in supporting sustainable tourism.
681 The controversy regarding the credibility of community participation and tourism sustainable
682 support has been extensively discussed in the previous tourism literature (Jamal & Stronza,
683 2009; Su & Wall, 2014; Šegota et al., 2017; Olya et al., 2018; Eslami et al., 2019; Gursoy et
684 al., 2019).

5.1 Theoretical implications

687   Firstly, this study amongst the first in the tourism field to discuss the serious global
688 phenomenon of cultural heritage looting, which adversely impacts future tourism planning and
689 sustainable development. It underpins the threats and risks from heritage looting that affect
690 cultural tourism infrastructure by empirically indicating local community concerns and
691 anxieties. It also determines the role of community participation as a primary concept in
692 preventing the looting of heritage and maximize sustainable tourism support, thereby
693 enhancing the theoretical concept of local community involvement in the tourism literature
694 defined by social exchange and collaboration theories (Hall, 1999; Nunkoo & Ramkissoon,
695 2011; Gursoy et al., 2019). Similarly, this study provides an overarching interpretation for
696 related scientific fields, such as history, archaeology, museology, geography, etc., in

understanding the unseen dimensions of the cultural heritage looting phenomenon and its functions.

Secondly, this study identifies another threat to sustainable tourism beyond the common dilemmas discussed previously in the literature (e.g. overtourism), creating a new path for tourism scholars to enrich this critical topic with social, environmental and cultural connotations. Thus, it extended present knowledge of SET in predicting sustainable behaviours and attributes. Likewise, current tourism researchers focus on challenges that occur in developed countries, whilst minimal attention is given to issues in less developed 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 provides an overall contribution to the methodological framework and process by adopting a mixed method research approach (e.g. conceptual and empirical) and analytical techniques (e.g. CA and dual analysis), which considerably raise the present conventional analysis used in tourism studies, demonstrating the employability of a multi analysis process that supports the conceptual discussion. This study also encourages tourism scholars to engage in innovative implementation of an intricate research framework and tools to keep abreast of the rapid growth of the tourism industry, which cannot be effectively interpreted using traditional analytical tools (Khoo-Lattimore et al., 2019).

5.2 Managerial implications

The present research formulates critical insights for cultural tourism developers with regard to heritage, art, museums and historical monuments on how to confront global threats that impact 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 the obstacle to international efforts to combat 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 reconsider the effectiveness of the key role played by 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 Yemen future tourism, with potential contributions to the development of cultural tourism globally.

This study has proposed potential solutions to a global threat by understanding the invisible consequences of illicit trading of cultural properties on national identity, authenticity, ecological and environmental preservation and sustainability. The rapid increase in cultural treasure looting has been attributed to the poor management and screening of antique markets and documentation of heritage objects by recipient destinations, located primarily 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 (UNESCO, 2014; INTERPOL, 2019).

Finally, this study builds a bridge between internal and external stakeholders to create mutually beneficial and close cooperation amongst local residents, governments, the

747 international community and NGOs to restrain this active black market. Consequently, an
748 active master plan should be developed by a higher authority, such as UNESCO and/or
749 INTERPOL, to impose strict criteria instructing all key players in response to the emergency
750 call to stop art market activities. This should take place unless a complete monitoring process
751 is applied exhaustively to all antiques and artefacts before they are exhibited in auctions, art
752 houses or museums to achieve a high level of integrity. In general, fighting global organised
753 crimes, such as the cultural heritage looting phenomenon, will be unsuccessful without full
754 integration, transparency and cooperation amongst stakeholders. Failing to do so will be a black
755 mark against the global diplomatic system (Jamal & Stronza, 2009; Graci, 2013; Liburd &
756 Becken, 2017; Jamal & Camargo, 2018).
757
5.3 Limitations and future studies

758
759   This is amongst the earliest tourism studies to discuss the global issue of cultural
760 heritage looting. Accordingly, several limitations are observed, creating emerging prospects
761 for future studies to enhance the current clarification and further explore this historical
762 phenomenon in particular regions that experience such illicit practices. This study focuses on
763 cultural heritage looting within the context of Yemen, which is considered an emerging tourism
764 destination. However, an extensive investigation of this issue in other possible victim
765 destinations listed by ICOM, such as Egypt, Afghanistan, China, Cambodia, Mexico, Italy,
766 Greece, Colombia, etc., will help extend the currently limited knowledge on cultural heritage
767 looting forms, background, patterns and attributes. This study also captures the views of local
768 residents of the old city of Sana'a in Yemen, which is basically considered a particular party
769 that is concerned with losing its heritage and cultural value. Nonetheless, future scholars are
770 recommended to observe the perceptions and responses of other parties, including government
771 bodies, international organisations or the private sector in charge of protecting cultural
772 properties.
773   In addition, this study uses limited constructs in the developed structural model,
774 including community participation, trust in government and local community's behaviour in
775 supporting sustainable tourism to test its relationships with the identified heritage looting
776 aspects. Hence, additional theoretical constructs and concepts, such as locals' knowledge,
777 public awareness, feelings and emotions, are encouraged to be explored. That is, the
778 development of innovative structural models will assist in predicting the causes and effects of
779 heritage object looting by examining multiple indicators as mediator or moderator constructs.
780 The authors strongly recommend further investigations to uncover formative factors in the
781 looting of cultural heritage. Lastly, this study conducts data collection within a targeted
782 destination, i.e. Yemen, and evidently does not cover local residents or communities in the
783 final destinations of smuggled cultural objects, such as the USA, including international
784 visitors of historical museums and art auctions that host stolen cultural collections. Antiques
785 and artefacts are essential cultural and heritage products that attract tourists in many cultural
786 tourism destinations. Therefore, obtaining the perceptions of visitors and local residents
787 towards recipient destinations and their potential attitudes towards such looting issues will
788 establish significant findings for understanding their cognitive and affective behaviour.
789

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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

		α	Eigenvalue	% Variance		
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
KMO and Bartlett's test = 0.924, Sig = 0.000				**Total:** 63.247%		

Note[1]: 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 < .000, χ^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,

Table 3. Dual analysis assessment of measurement model

Scale Items	CB-SEM			PLS-SEM				
		CR	AVE		CR	AVE		
(1) Historical and humanity legacy	**Beta**	**0.864**	**0.515**	**Beta**	**0.902**	**0.605**	**Mean**	**SD**
▪ 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

Item	Loading	CR	AVE	Loading	CR	AVE	Mean	SD
▪ 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								
▪ prohibit the use of heritage areas with problems during a conflict.	0.711			0.810			4.708	1.855
▪ 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,								
▪ locals should provide support and participate.	0.726			0.798			5.463	1.607
▪ 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: χ^2 = 1967.557, df = 1252, p < 0.000, χ^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.

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:					_Total variance explained:_		
	R^2 for Direct protection management = 0.028					R^{2adj} for Direct protection management = 0.019	$Q^2 = 0.012$
CB-SEM	R^2 for Trust in government = 0.090				**PLS-SEM**	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
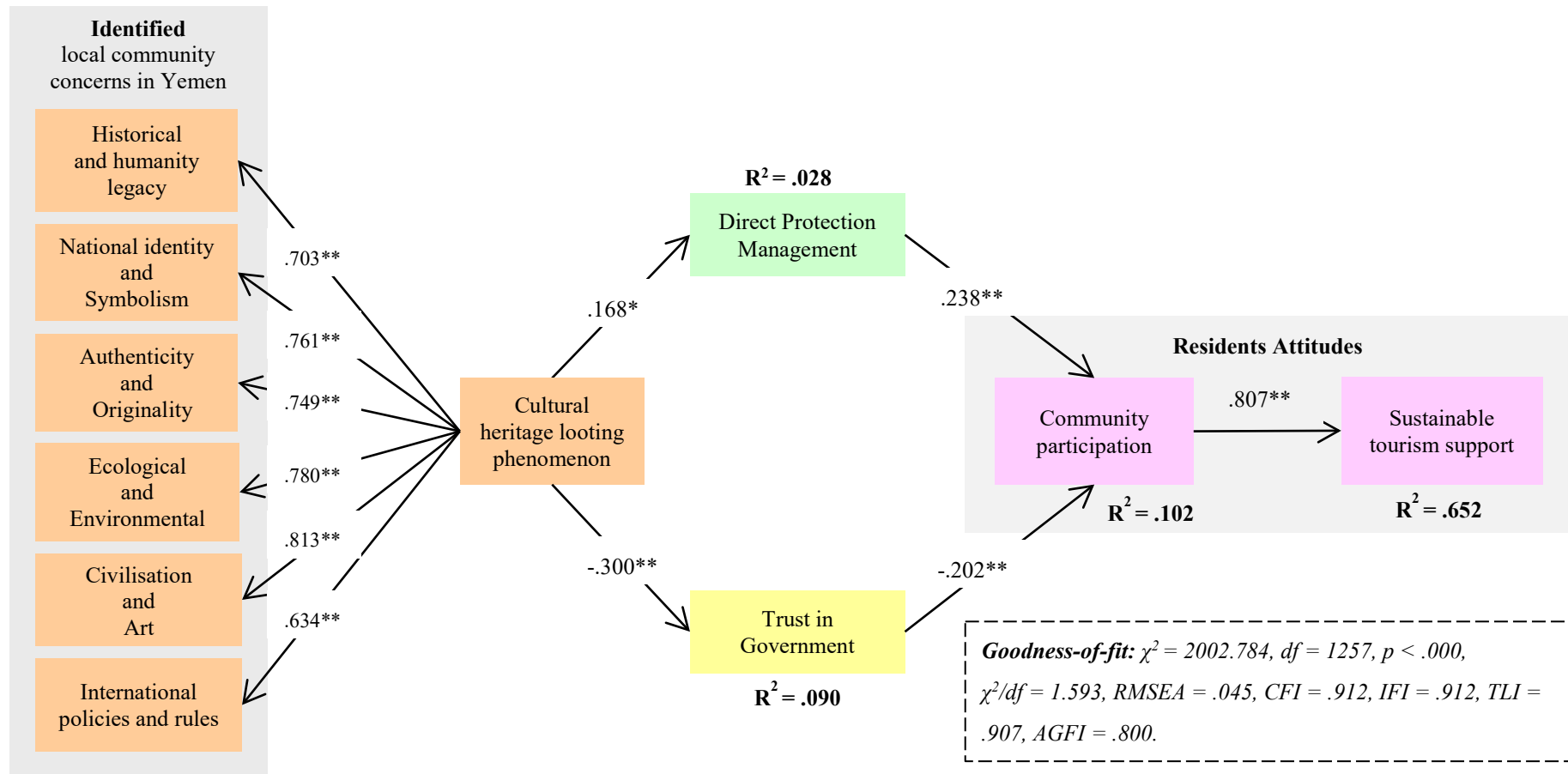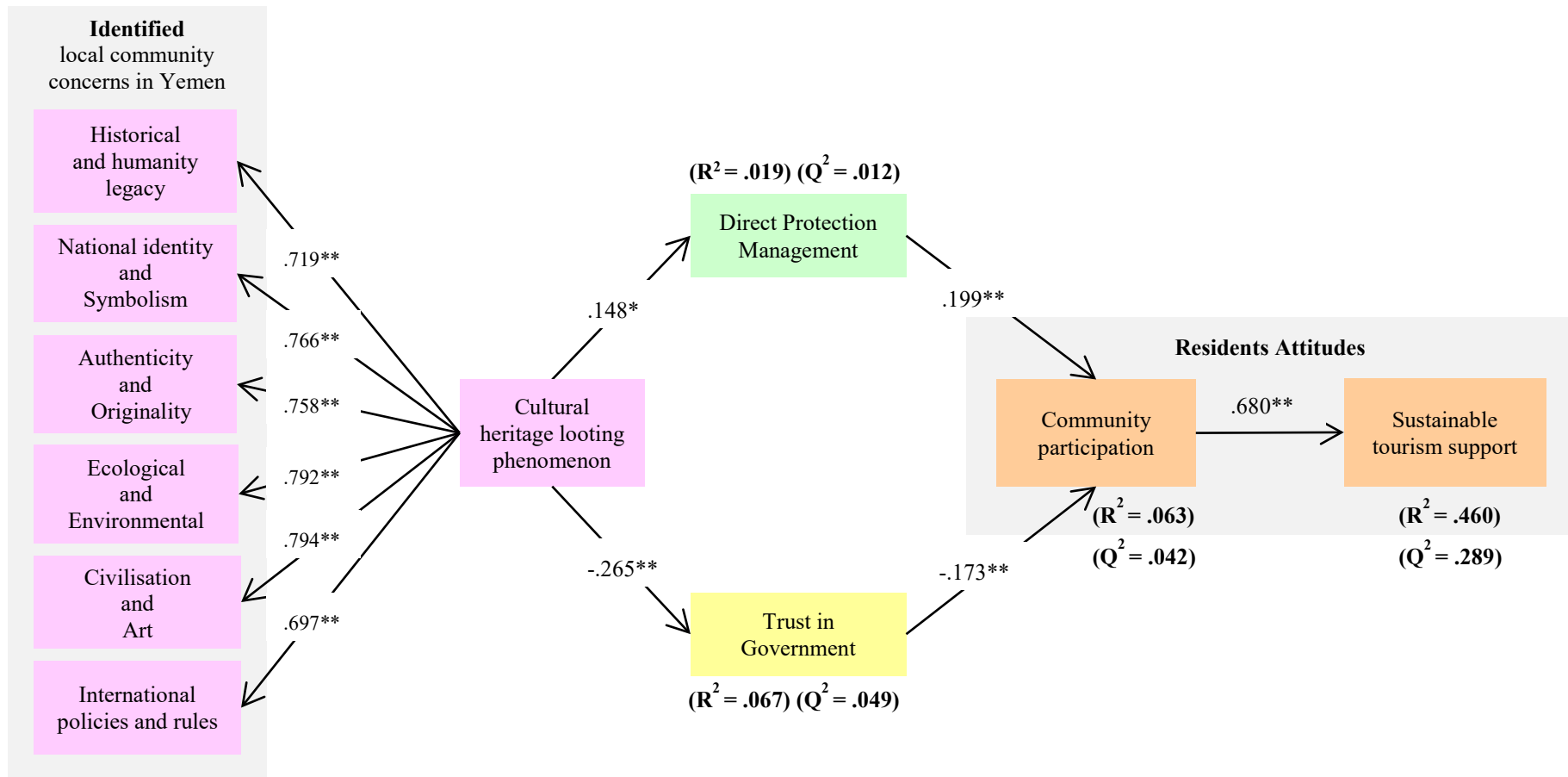
*p < 0.05, **p < 0.01
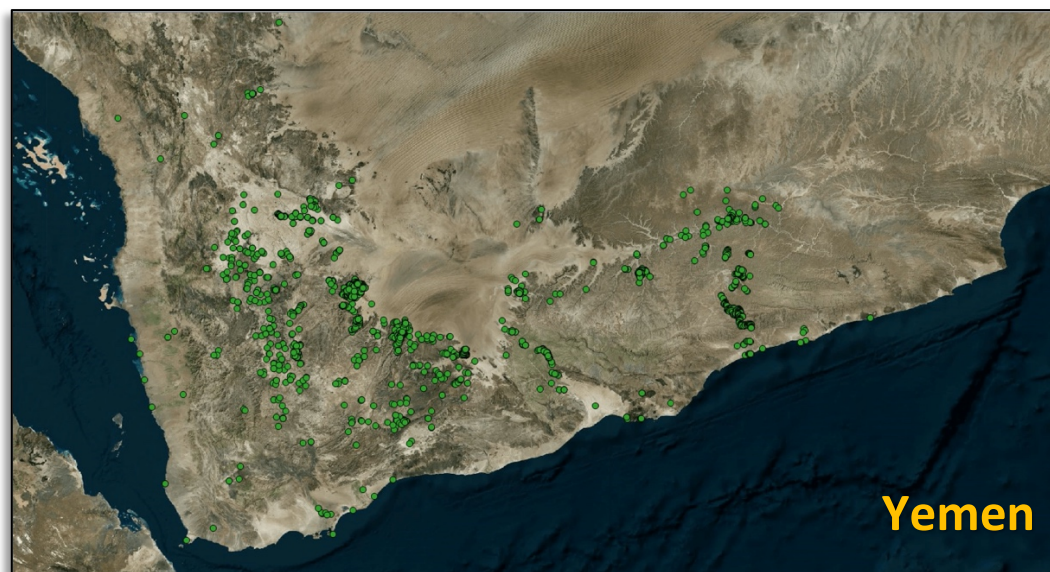
Figure 1. Map of Antique heritage sites in Yemen by the German Archaeological Institute (DAI)
Source: https://www.archernet.org/
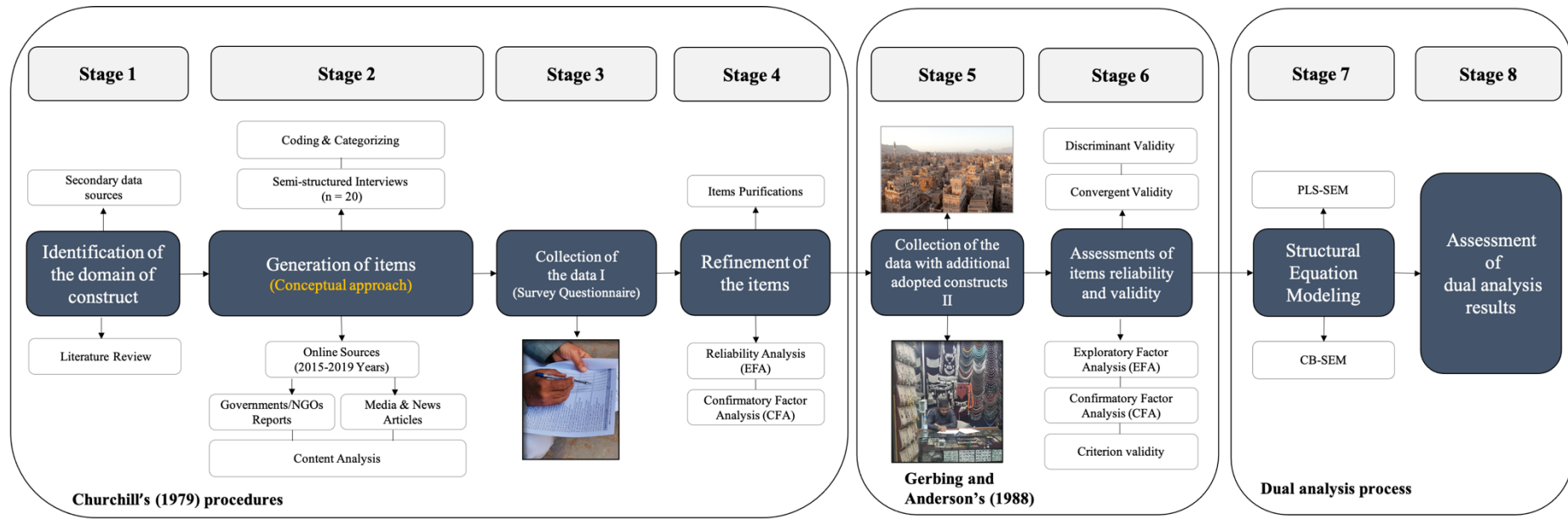
Figure 2. Research design and process

Figure 3. CB-SEM results

Figure 4. PLS-SEM results

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

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

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

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