

Lisbon as the European Green Capital in 2020: Tourism Preferences in an Urban Context



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Abstract

The European Green Capital is an annual initiative by the European Union designed to showcase and celebrate a European Capital city throughout a year considered through three postulates based on tourist inquiries face-to-face to Perceptions of Tourists Visiting Lisbon in 2020. Discernment of Tourists Visiting Lisbon (DTVl) were based on Reasons for the Visit (Reasons), Tourist Experience of the Visit (Experience), and Perception of the Historical Heritage (Perception). Each had a relevant correlated achievement in Lisbon regarding the Tourist Profile, the Purpose of the Visit, and the Perception of Historical Heritage. The statistical investigation started with the Alpha-Cronbach test to examine the internal consistency of each of the dimensions. It was a qualitative analysis through a questionnaire, and the evaluation was examined by SM and MM models. The questions that make up the survey are outstanding reliability. The defer to application outlines its approach and objectives for achieving the seven sustainability indicators of the United Nations, as we concluded.

Keywords: European green capital; Sustainability; Perception of tourists; Model's SM and MM

Abbreviations: ICT: Communications Technology; GAV: Gross Added Value; CFI: Comparative Fit Index Tucker; TLI: Lewis Index; IFI: Incremental Fit Index

Introduction and Literature Background

The Green Capital of Europe award has attracted wide interest in Europe due to tourism, monuments, and culture [1] and environmental concerns [2]. Since its launch in 2010, 46 cities in 22 European countries have competed for the title. The chosen cities are good examples of how green investment, environmental protection, and economic growth can coexist and mutually support each other in large cities through private and public actors [3]. The Green Capital of Europe competition aims to transform cities into more pleasant places to live and work, i.e., to create a healthy environment and help design a sustainable urban environment for current and future generations [4]. This study aims to analyze the effects and energies on the city of Lisbon during the first year of the pandemic caused by the SARS-CoV-2 virus, responsible for the COVID-19 disease, through a cross-sectional survey of a group of tourists who responded freely to the listening questions. Regarding the future of justifiable investment,

particularly in the tourism sector concentrated in Lisbon, there is an undeniable shift toward sustainable development. Companies are increasingly recognizing business opportunities and risks, reflecting this transformation [5]. This aspiration, in a continuous period, implies new risk assessment methods and new rationales associated with the decision-making process, what [6] wrote as being "cases in which an expert panel is asked to decide on one binary question, which involves a comparison between a risk assessment and a risk threshold". In addition to any decision involving an associated risk, it will always have implications for people. However, managing risk is most important by considering it as part of a broader approach to corporate and government institutional risk management "to prevent the risks from escalating into hazards and crises" [7]. This is the case in the Tourism sector, where "As organizations face supply chain disruption, rising inflation, environmental disasters, and workforce exhaustion,

they must be more resilient than ever” [8]. Supply chains in the tourism sector involve many countries and long distances due to their relevance and crucial importance in most countries and their economies and societies [9].

They mirror reliable transport, but are also more exposed to interruptions, highlighting the importance of considering the interconnectivity of transport and supply chains in designing future policies aimed at the sectors surrounding Tourism [10]. The contributions of the tourism sector and its development to economic growth are widely recognized in all economies, especially those strategically led by this sector [11,12]. However, this sector’s evolution also impacts environmental quality and social sustainability. One of the performances of tourism concerning the environment is its protection and preservation over time [13]. In addition, the high uncertainty of economic policy also has repercussions on the environment that is intended to be healthy [14]. According to the Organization for Economic Cooperation and Development [15]. “About 48% of the population that constitutes it lives in urban regions or metro-regions. Almost half of the population lived, in geographical terms, in 6% of the territory”. According to the same organization, “the phenomenon of “cities in decline” brings unprecedented challenges to policymakers and is expected to become even more pressing in the coming decades.” (OECD, 2019, p. 96). Cities embody the enormous challenge of our daily coexistence and the future of extreme uncertainty and exponential risk that the pandemic has brought to the surface [16]. In a scenario like this, continuing to grow economically, and providing greater social progress, while ensuring a reduction in pollution and a sustainable use of natural resources is not confined to an accessible task.

In this regard, [17] state that “many times the countries remain in the process of generating revenue from these resources but an oversight that these resources are depleting with revenue generation activities (...) investigated the relationship between energy, tourism, and resource depletion”. The answer to these challenges will be decisive in any sustainable development agenda and represents an opportunity for innovation with a focus on economic, environmental, and social progress, and with the intervention of all agents in the urban ecosystem [18]. We are talking about, e.g., citizens, families, schools, local authorities, central authorities, working methods, processes, and organizational structures of companies and other organizations [19]. According to the Sustainable Development Goals established by the United Nations (UN, 2018, p. 1) “the 2030 Agenda points out the path to be taken for development and that this plan must be given life as a defining element of our time and an integrated platform to respond to the needs of people and governments”. Tourism is included in the Global Goals, a document that contains seventeen objectives broken down into one hundred and sixty-nine targets.

Urban sustainability is the most visible facet of tourism, namely due to the variety of its built cultural heritage and its values

[20,21]. For tourism organizations, achieving the Sustainable Development Goals in cities requires them to offer opportunities in the areas of housing, energy, efficient construction, mobility, water, and sanitation [22]. Many already consider this transition as strategic, developing solutions that contribute to urban sustainability sanitation [23]. In practice, in contemporary society, there is an even more robust set of forces with high potential that connects this triple combination to create a virtuous cycle formed by sustainability, inclusion, and economic growth [19]. Dealing with these matters in an exclusive and disjointed way does not conceive of the social effects genuinely desired by all. That said, and focusing on the case of Portugal, many Portuguese cities have sustainability as a fundamental priority, as ISO 37120 acclaims [24]. All over the world, in the urban paradigm, being one of the recognized “smart cities” is the new goal to be achieved by Portuguese cities. From a conceptual point of view, “smart cities” fall under the umbrella of sustainable cities [25]. The concept of sustainable smart cities synthesizes two distinct concepts: sustainability and smart cities. The concepts “have unique characteristics that complement each other’s weaknesses” [26].

Lisbon has been a pioneer in this effort and, for this very reason, on June 21, 2018, it received the title of European Green Capital 2020, announced by the European Commissioner for the Environment, Maritime Affairs and Fisheries, Karmenu Vella. The award resulted from the evaluation of a group of international specialists on efforts to mitigate climate change, adapt to it, and implement more sustainable urban mobility systems, of which the advances in social passes in transport are an excellent example, the preservation of green spaces and biodiversity, air quality, combating noise pollution and waste, efficient water and energy management, long-term sustainable growth, eco-innovation, and municipal governance [27].

However, tourists were not left out of this rationale [28]. In this context of rapid transformation, we are presently witnessing the need for clear and straightforward information from investors to anticipate future challenges [29]. However, this still imposes the incorporation of risks and factors by the managers of tourist assets in any national market long way to go in matters of organization, operational conditions, and risk management [30]. Its defensible success depends largely on the appropriate “expertise” and “know-how” of the operators, on the existence of a sufficiently diversified universe of options and tangible assets, comparable and reliable information, and innovation [31]. The conceptual framework of the definition of risk management in the tourism sector is understood here as the assessment that tourism companies make of their appropriate motivation for their resources and technical capabilities at the business level to develop broader resources in the production chain to assist the management of risks [32]. Risk is usually restricted in literature as the probability of potential losses, and nowadays they focus, according to the 2021 Global Risks [33], on potential risk indicators of more significant impact in the next decade.

These risks are stated to be infectious diseases, the failure of climate action, and other environmental risks, followed by concerns of threats from weapons of mass destruction, the persistence of debt crises, and the risk of breakdown of infrastructure based on Information and Communications Technology (ICT) [34], Ram & Hall, 2021. For these reasons, the path must be taken in an integrated and balanced way that defines, rather than imposes, rigid and prescribed rules as the Portuguese government has done, e.g., with the “golden visas”, inadequate taxation given the sector’s contribution to the Gross Added Value (GAV) of the country, to the guidelines and general norms of an authentic Rule of Law [35]. Ensuring proportionality and fiscal stability and adding energy transition are requirements to improve institutions’ environmental performance and quality, considering the vast diversity of investment styles and approaches in tourism [36], at least in the most emblematic zones in the country. They started with Lisbon, the most sought-after place by tourists yearly [37].

The structure of the article is divided into seven parts; the first concerns meeting the objectives set for a city to be elected as a European Green Capital. The methodology and model used to process survey data are set out below. Then, the presentation of the statistical model and the treatment of the hypotheses. Fourthly, the validation of statistical indicators. Then, the results of the software used. Sixthly, there are reflections on socio-economic sustainability within the urban system. Finally, the conclusions and lines for future research for this type of European initiative Table 1.

The Environments of the 2020 Lisbon Green City Goals

Lisbon is the capital of Portugal and its largest city, with the municipality population reaching over 545,000 according to the 2021 Census (INE, 2023). It is on the southeast coast, the country’s main port and political and commercial center. Lisbon has experienced significant challenges in the past, particularly in 1755 when on 1 November an earthquake and tsunami devastated around 2000 of the 20,000 existing dwellings and left more than two-thirds uninhabitable [38], becoming “one of the most important eighteenth-century urban design achievements in Western Europe” [38,39].

More recently, the global economic downturn of 2008 greatly affected Portugal. Still, despite such challenges, Lisbon has made strides in cementing the city’s environmental sustainability strategy and in turn enhancing the quality of life of its citizens, showing that environmental protection and economic growth can go hand in hand [38]. The vegetable gardens and greens since the Middle Ages have been a) the sea as never felt before, b) the sea is our land, c) drawing in notebooks and photographs, d) exhibition on historical gardens in Lisbon, e) paper cities like reprints and arming constructions and f) exhibition of the master of the landscape [40]. “Rather than reiterating narratives of urban entrepreneurialism as dominated by narrow economic

agendas and being socially exclusionary, this form of urban entrepreneurialism encourages us to look at cities as places that can be coproduced in context-sensitive ways by multiple entities” as say [41] about Bristol Green City in 2015 Table 2. The Sustainable Urban Mobility Lisbon, following the guidelines of the European Institute of Innovation and Technology (2023) has a cohesive city-wide vision for sustainable mobility and is achieving this through measures to restrict car use and prioritize walking, cycling, and public transport. In 2017 Lisbon launched a bike-sharing scheme, with electric bikes comprising two-thirds of the fleet to encourage cycling in the hillier parts of the city [42].

Sustainable Land Use, Lisbon is committed to protecting and enhancing its natural areas while providing quality outdoor recreational space for citizens because of leisure spaces and social purposes [43]. This is exemplified in Lisbon’s management of Monsanto Park, for which the city has received the Sustainable Forest Management Certification. Like other cities, Green Growth & Eco-Innovation Lisbon is working towards a fully integrated city, employing a holistic approach to urban planning that considers all aspects of the city, including water, mobility, waste, education, and employment [2]. The city involves many stakeholders, such as citizens, businesses, academia, and international partners, in its policies and programs for urban innovation and urban agriculture [44]. The city also creates new green space along this corridor, allowing wildlife to flourish and protecting its biodiversity [45]. At the beginning of the century, there was a vital concern about the quality of life in cities from public policies [46].

Mike Childs in his forward to McLaren & Agyeman’s book (2015, vii) stated that “When Mayor of London Ken Livingstone, Mayor Michael Bloomberg from New York, and others set up the C40 Cities Network a decade ago, they had the vision that cities will be the locations where the world’s greatest environmental challenges will be solved”. Therefore, by 2030, Lisbon must guarantee everyone’s access to safe, adequate, and affordable housing, including its inherent essential services, and improve conditions in slums, like other cities in the EU (Lisbon Declaration on the European Platform on Fighting Homelessness, 2021).

In addition, it provides access to safe, accessible, sustainable, and affordable transport systems for all, improving road safety through the expansion of the public transport network, with particular attention to the needs of people in vulnerable situations, women, children, people with disabilities, and the elderly [40]. It increases inclusive and sustainable urbanization and capacities for participatory, integrated, and sustainable citizen consent planning and management in all appropriate locations in the city, according to the “2030 Agenda for Sustainable Development” [47,48]. It strengthens efforts to protect and safeguard cultural and natural heritage. Significantly reduces the number of deaths and the number of people affected by disasters and substantially the direct economic losses caused by this route in the Gross Domestic Product (GDP), including water-related cataclysms, focusing above all on protecting the most vulnerable people in

situations of greater vulnerability to rare violent phenomena [49]. Reduces per capita negative environmental impact in cities by paying particular attention to air quality and municipal and other waste management [49,50].

Provide universal access to safe, inclusive, accessible, and green public spaces, particularly for women and children, older persons, and persons with disabilities phenomena [51]. Supports positive economic, social, and environmental relationships between urban, peri-urban, and rural areas, strengthening national and regional development planning [49]. Substantially increases the number of cities and human settlements that have adopted and implemented adopting and implementing integrated policies and plans for inclusiveness, resource efficiency, climate change mitigation and adaptation, and disaster resilience [52]. and finally develops and implements holistic disaster risk management [30]. The strengthening and improvement of the risks of disasters and accidents, natural or man-made manufactured, are in line with

the Sendai Framework for Disaster Risk Reduction 2015- 2030 (United Nations, 2015) adopted at the Third United Nations World Conference in Sendai, Japan, on March 18, 2015, supported by the United Nations Office for Disaster Risk Reduction at the request of the UN General Assembly United Nations, 2015 [53-55].

Methodology

According to [56,57], the study was based on structured questions "sampling by convenience". The sample was collected in 2020, using a non-probabilistic sampling method, due to accessibility and based on the principle that they can represent the population under analysis by "sampling by convenience". For this purpose, 320 surveys were carried out. However, the sample was reduced to a set of 241 validated answers. It should be noted that 2020 was the beginning of the COVID-19 pandemic, having greatly conditioned the flow of tourism without historical precedents (INE, 2021). The global structure of the total sample is presented in Figure 1.

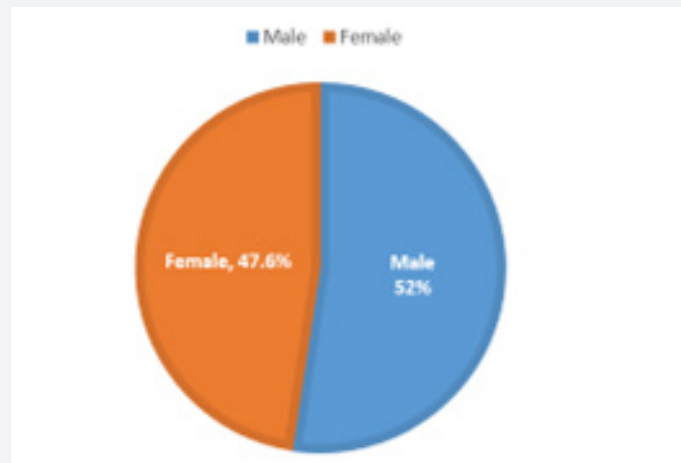


Figure 1: Global Structure of the Total Sample.
Source: own elaboration.



Figure 2: The Proposed Research Model.
Source: own elaboration.

The Research Model

The statistical analysis started with the examination of statistical measures, such as the mean and standard deviation, in addition to the relative frequencies. We began by analyzing the

Alpha Cronbach test to examine the internal consistency of each survey's dimensions we studied. This section presents the model and methods of this work, providing the general framework of the research model. Statistical Methods and Techniques Used Data processing was performed using the SPSS26 software Table 3.

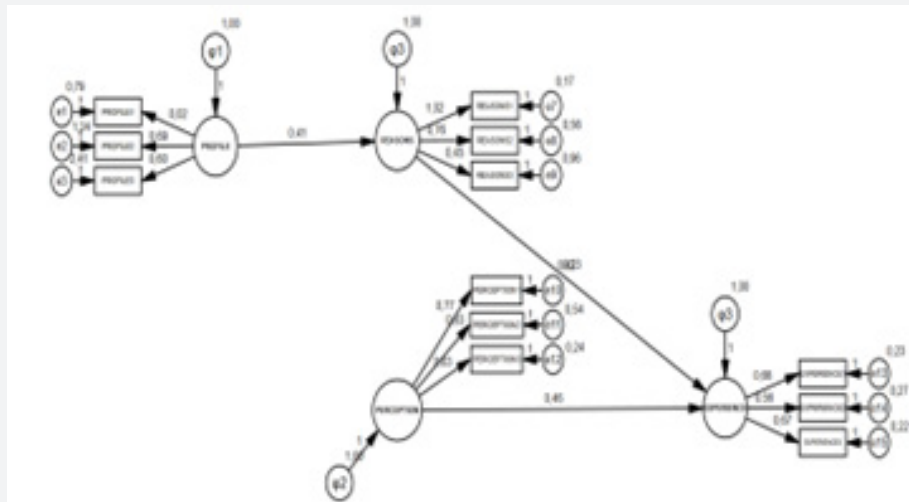


Figure 3: SM, factorial weights, fit, and errors.
Source: own elaboration.

General model

The proposed research model is presented schematically in Figure 2, which evaluates the Perception of Tourists Visiting Lisbon (PTVL) relating to their profile as a) the Reasons for the Visit, b) the Tourist Experience of the Visit, and c) the Perception of the Historical Heritage. They are presented under the following hypothesis:

Hypothesis 1 (H_1): The perception of tourists visiting Lisbon about the Reasons for the Visit is positively related to the Tourist Profile.

Hypothesis 2 (H_2): The perception of tourists visiting Lisbon about the Tourist Experience for the Visit is positively related to the Purpose of the Visit.

Hypothesis 3 (H_3): The perception of tourists visiting Lisbon about the Tourist Experience of the Visit is positively related to the Perception of Historical Heritage.

The present model defines the fact that Tourist Profile (Profile) and Perception of Historical Heritage (Perception) are independent variables (exogenous constructs), and Reasons for the Visit (Reasons) and Tourist Experience of the Visit (Experience) are dependent variables (endogenous variables). As presented in Figure 1, four constructs (two exogenous and two endogenous) and the four hypotheses are defined to represent the

research model.

Based on the relations defined among the variables in the theoretical model, it becomes feasible to prove the hypotheses established by applying the modeling technique called Structural Equation Modeling (SEM). This multivariable analysis for linear models is the basis methodology for this study. Employing the SEM method, two sub-models are defined to statistically validate the rest [58,59] each model: the Structural Model (SM) and the Measurement Model (MM). In SM, the relationship between constructions (exogenous and endogenous) is established and influences how independent constructions affect the dependent constructions. In MM, the ties among constructs and their manifested variables are evaluated. Both sub-models will apply to be the Confirmatory Factor Analysis (CFA).

Data collection

Based on the literature review, a set of manifested variables was found to define the constructs, presented in Table 1.

A survey was conducted among Lisbon tourists, using the variables shown in Table 1 to collect data. Each variable was considered an answer based on a 5-point Likert scale: 1 – completely disagree and 5 – agree. The sample obtained was 241 validated answers, overcoming the defined value by Westland (2010) for the minimum sample size Table 4.

Table 1: Defined constructs and their variables.

Constructs	Manifested Variables
Profile	Academic formation (Profile1) Age (Profile2) Family income level (Profile3)
Perception	Educational contribution (Perception1) Part of the patrimonial heritage (Perception2) Feeling better (Perception3)
Reasons	Historical and monuments richness (Reasons1) Heritage knowledge (Reasons2) Touristic reputation (Reasons3)
Experience	Right choice (Experience1) An important level of satisfaction (-) Positive recommendation (Experience3)

Source: own elaboration.

Table 2: Adjustment indices values and criteria.

Adjustment indices	Adjustment Criteria
$\chi^2 / \text{g.l.}$	< 3
GFI	> 0,9
CFI	> 0,9
TLI	> 0,9
IFI	> 0,9
PCFI	> 0,6
RMSEA (IC 90%); p-value	< 0,08; p > 0,05
AIC	Smaller than independent model

Source: own elaboration.

Table 3: Adjustment validation of the SM and the MM.

Adjustment indices	Adjustment Obtained		Adjustment Criteria
	SM	MM	
$\chi^2 / \text{g.l.}$	3.09 (fair)	1.95 (good)	< 3
GFI	0.91 (good)	0.94 (good)	> 0.9
CFI	0.90 (good)	0.96 (good)	> 0,9
TLI	0.86 (fair)	0.93 (good)	> 0,9
IFI	0.90 (good)	0.96 (good)	> 0,9
PCFI	0.69 (good)	0.70 (good)	> 0,6
RMSEA (IC 90%); p-value	0.093 (0.077 – 0.110); p=0 (fair)	0.063 (0.044 – 0.082); p=0.128 (fair)	< 0,08; p > 0,05
AIC	211.392 < 1100.926 (good)	153.482 < 1,100.926 (good)	Smaller than the independent model

Source: own computation.

Table 4: Adjustment validation of the SM and the MM.

Hypothesis	Exogenous Construct	Endogenous Construct	Est.	SE	CR	p-value	Conclusion
H ₁	Reasons Reasons for the Visit	Profile Tourist Profile	0,409	0,160	2,554	0,011	Confirmed
H ₂	Experience Tourist Experience of the Visit	Reasons Reasons for the Visit	0,458	0,096	4,751	<0,001	Confirmed
H ₃	Experience Tourist Experience of the Visit	Perception perception of Historical Heritage	0,227	0,081	2,788	0,005	Confirmed

Source: own computation.

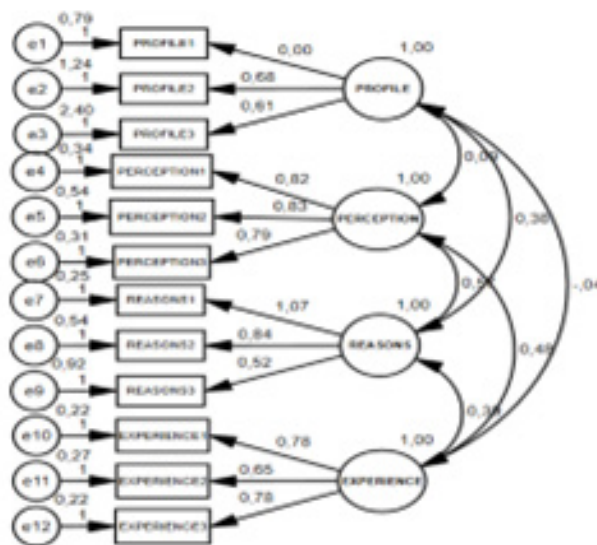


Figure 4: MM, factorial weights, fit, and errors.
Source: own elaboration.

Models' indicators for fitness and validation

To analyze the quality of the data collected in the established models, an evaluation of the models (SM and MM) is required concerning the fitness and the validity of the manifest variables. In this research, the most common validation indices are:

- Absolute indices: χ^2/df ratio (chi-square and degrees of freedom ratio) and Goodness of Fit Index (GFI)
- Relative indices: Comparative Fit Index (CFI) [60] Tucker Lewis Index (TLI) and Incremental Fit Index [60]. (IFI)
- Parsimony-adjusted index: Parsimony CFI (PCFI) [61,62].
- Population discrepancy index: Root Mean Square Error of Approximation (RMSEA) [60].
- Information theory-based index: Akaike Information

Criterion (AIC) [63].

- The adjustment indices values and criteria to evaluate the fit of each index are presented in Table 2.

Results

The parameters of the SM and MM were achieved using the SPSS Amos and SEM software and employing the Maximum Likelihood Method. Factorial weights, fitness, and errors are presented for the SM and the MM in Figure 3 & 4 respectively.

Practically all manifest indicators have significant factorial weight in their constructs, except the manifested variable Age (Profile2) in the construct Tourist Profile (Profile). This means that, based on the collected data, this variable does not influence the characterization of the Tourist Profile. Concerning the adjustment indices' quality, the SM and the MM adjustments validation were plotted by the software Amos and are presented

in Table 3.

An assessment of the theoretical sub-models is feasible under the values obtained in Table 3. The values of the adjustment quality in the Structural Model (SM) ($\chi^2/df = 3.09$, GFI = 0.91, CFI = 0.90, TLI = 0.86, IFI = 0.90, PCFI = 0.69, RMSEA = 0.093, and AIC = 211.392) and the Measurement Model (MM), ($\chi^2/df = 1.95$, GFI = 0.94, CFI = 0.96, TLI = 0.93, IFI = 0.96, PCFI = 0.70, RMSEA = 0.063, and AIC = 153.482) reveal that fair and good adjustments are achieved in both models, leading to an overall statistical fit in SM and MM. Table 4 shows the adjustment validation of the values obtained in the SEM software to estimate the structural relationships in the SM among the constructs.

In the SM model, all hypotheses were confirmed (p-values of H_1 , H_2 and H_3 are less than 0.05). Based on the proposed model, the results of this research prove that there is a relationship between:

- a) The tourist profile with the reason for the Reasons for Visit.
- b) The purpose and the Tourist Experience of the Visit.
- c) The Perception of the Historical Heritage and the Touristic Experience of the Visit.

Discussion

The response to the challenges sets out above will be decisive in the Sustainable Development agenda and represents an opportunity for innovation with a focus on economic, environmental, and social progress, and with the intervention of all agents of the urban ecosystem – citizens, schools, local authorities, companies, and other organizations. For the United Nations (2023), it is the eleventh in seventeen of the Sustainable Development Goals – making cities and communities resilient. Among Portuguese cities, many have made sustainability a priority. Lisbon has been a pioneer in this effort and, for that very reason, received the European Green Capital 2020 award. By 2023, Lisbon must become a more sustainable urban city with mobility – of which the advances in the monthly transportation tickets are an excellent example, the preservation of green spaces and biodiversity, air quality, the fight against noise pollution and waste, efficient management of water and energy, sustainable growth, eco-innovation, and governance. The United Nations created the ranking of sustainable and environmental priorities in which the tourism sector is represented [64].

It is helpful for the community to know that cities with organized municipal governments pay back the collected taxes, in return for their goods and services. We know that in these cities the population pays relatively equitable taxes. The example comes from the European cities presented with this award aimed at focusing management results on “Best Quality of Life”. The Green Capital of Europe award has attracted wide interest in Europe. Until 2020, since its launch in 2010, 46 cities in 22 European countries competed for the title. Stockholm and Hamburg, Green Capitals of

Europe for 2010 and 2011, are examples of how environmental protection and economic growth can be mutually supportive and coexist in relatively large cities [65]. With urban populations set to grow further, we face increasing pressures related to housing, transport, waste disposal, energy, and streams below ground. At the same time, we like to live and work in cities with clean air, easily accessible green spaces, well-managed waste and water systems, pedestrian and cycle facilities, and public transport.

These aspects make a city healthy and help create a sustainable urban environment for current and future generations. This European Green Capital award shows local efforts to improve the urban environment and promote sustainable growth cities [66-70]. Cities must share ideas and encourage their counterparts to develop creative solutions for a sustainable way of life. Something ends up staying, such as innovative solutions to the environmental challenges that medium-sized cities face. More than 400 medium-sized cities in Europe have populations ranging from 100,000 to half a million. The European Green Capital competition ultimately aims to transform cities into more pleasant places to live and work. As the competition for Europe’s Green Capital in 2025 has been launched, we would like to see cities encouraged to take advantage of this opportunity to review and publicize their environmental credentials and plan a sustainable future for their citizens.

Conclusion and Lines for Future Research

For the EU, each Green Capital of Europe award is given annually to a European city with more than 100,000 inhabitants which is an example in terms of environmental, social, and economic sustainability. The submitted application demonstrates its path and the goals to be achieved for the seven sustainability indicators: i) air quality, ii) noise, iii) water, iv) nature, biodiversity, and sustainable land use, v) waste and circular economy, climate change, vi) mitigation and vii) adaptation. Lisbon is taking steps to meet these targets. Commitments to climate neutrality and zero waste, guarantees to environmental education, and structuring projects were some of the many highlights for a green Lisbon shortly. From the outset, it joined and led the work of the various institutions in the municipal perimeter, along with other public and private institutions, emphasizing tourism. As we can see from the framework of reliability statistics, the questions that make up the survey are of excellent reliability. It should be noted that the sum gives more than 100% because some respondents answered with more than one option, especially those who came for work and to participate in conferences and ended up staying in the city for leisure. Measurable variables are scientifically supported. The aggregation criterion in question blocks allowed the disaggregation of the variables and their integration into the respective groups. This is a partial work in order not only to relate the Green City to sustainable tourism but also to apply this link to sustainable tourism practices in an urban context, such as the city of Lisbon cities [71-76].

For future studies, we aim to apply preliminary analysis to the data (missing data and outliers) and perform descriptive data analysis. For example, if the missing data in each variable is more significant than 10% of the total, replacing it with the median of the scale will most certainly generate later problems of collinearity, being preferable to suppress it, or perhaps it is better to reduce the sample size excluding respondents that may contaminate these variables. Eventually, other data analyses will be carried out, also checking if more than a second-order factor emerges, through the construction of a model following its sequence, always using reflective constructs, and finally, a CFA analysis, using AMOS, which matches well with SPSS software.

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