

The effects of world heritage status on European city residents' subjective quality of life

World heritage status and quality of life

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Abstract

Purpose – Being awarded world heritage status is a distinguishing factor when it comes to promoting tourism in a city. Tourism in these cities should be developed in a way that does not compromise either the city's heritage or the inhabitants' quality of life. Thus, the main purpose of this paper is to analyze the effects of a European city achieving world heritage status on the subjective quality of life of its citizens.

Design/methodology/approach – First of all, we classify European cities according to whether or not they have been declared world heritage sites. Then, we analyze the effect of this classification on the main aspects used to measure the residents' perception of quality of life that are available in the Flash Eurobarometer 419.

Findings – The results show that achieving world heritage status has a negative effect on residents' perceptions of the noise level, air quality and feeling of safety. However, it does not affect their perceptions of public transport or cleanliness. In addition, world heritage status positively affects residents' perceptions of the cultural activities in the city and their ease of finding a job. Residents report high levels of happiness in both world heritage and non-heritage cities, although levels are somewhat higher in non-heritage cities.

Originality/value – Residents' perceptions of the influence of tourism on their quality of life are undoubtedly of major importance; however, due to a lack of available data, few studies have examined this subjective quality of life at the city level.

Keywords World heritage city, Cultural tourism, Quality of life, Happiness, Residents, Europe

Paper type Research paper

1. Introduction

Tourism has been and continues to be a key factor in countries' economic recovery; hence, various initiatives have been developed with the aim of enhancing their tourism offer. The preservation of cultural heritage has played a beneficial role in the development of cities and countries (Vargas, 2018) and being declared a world heritage site by the United Nations Educational, Scientific and Cultural Organization (UNESCO) is a distinguishing factor to promote tourism in a city. Nevertheless, attempts to boost tourism in these cities need not be at odds with heritage conservation itself and the sustainability goals, as the preservation of cultural heritage can be seen as a means to achieve sustainable development (Guzmán *et al.*, 2017). In this sense, UNESCO (2023a) developed an international framework that allows the cooperation and coordination across sectors to facilitate the development of sustainable tourism in world heritage cities. The World Heritage Cities Program by UNESCO establishes a theoretical framework for urban heritage conservation and provides technical assistance to states for integrate urban heritage conservation into its socio-economic development (UNESCO, 2023b). This World Heritage Cities Program away from a concentration on the

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preservation of individual sites and monuments towards a broader approach to the conservation of Historic Urban Landscapes (HUL).

In this regard, the paradigms of sustainable development can be expanded to include intangible aspects such as quality of life. Similarly, natural and cultural heritage are increasingly becoming the focus of various policies put in place by governments and a list of natural and cultural assets has been drawn up, which together make up the UNESCO World Heritage List. This list, which grows longer each year, is testament to the global commitment to preserving the world's heritage. In this paper, the world heritage cities will be urban settlements with properties inscribed on this list, located in or at the outskirts of their urban area. [UNESCO \(2016\)](#) thus underlines the contribution made by cultural heritage to the creation of a sustainable city. Taking into account that most of world heritage sites are in urban areas, UNESCO adopted the HUL recommendation ([UNESCO, 2023c](#)) and called for the application of a landscape approach to balance between urban development and heritage conservation considering the urban heritage as resource of sustainable area development. In this sense, [Bandarini and Van Oers \(2012\)](#) developed an interesting overview of HUL, and [Ginzarly *et al.* \(2019\)](#) and [Rey-Pérez and Pereira Roders \(2020\)](#) developed an interesting systematic literature review about the HUL.

When it comes to defining heritage, it is necessary considers that cultural heritage conservation is part of sustainability and must be recognized as such. It should also reflect the shifting definition of sustainability, moving away from the traditional perspective focused on material aspects and basic social needs towards the inclusion of intangible aspects such as heritage and well-being ([Colantonio, 2007](#)). The social benefits of cultural heritage have been associated with improvements in inhabitants' quality of life, by giving them a sense of belonging, creating pleasant living environments ([WCED, 1987](#)), mitigating excessive urbanization and helping to adapt to climate change. However, there are not papers in the literature that analyze the effects of world heritage status in the residents' perceived quality of life considering several cities and at European level. In this paper we analyze if the world heritage status represents a distinguishing factor in residents' perceived quality of life. In the present paper, we attempt to test this hypothesis, analyzing the extent to which residents' perceived quality of life differs between world heritage and non-world heritage cities. In this sense, the European Horizon 2020, the world heritage convention, its operational guidelines and the standard setting texts of its advisory bodies are key, as well as the Faro Convention, among others. The European Horizon 2020 Strategy establishes the need to achieve a better standard of living; one way of ensuring such improvements is to enhance European citizens' perception of their quality of life. Promoting sustained well-being and happiness has become a priority objective at the political level. Thus, to address this relevant policy issue, this study is aimed at gaining an understanding of how world heritage status development affects the well-being and happiness of residents.

Although quality of life is a very intuitive concept, providing a scientific definition is a complex task, especially if we consider other closely related aspects such as standard of living, well-being and happiness. [Somarriba *et al.* \(2015\)](#) defined it considering both objective and subjective factors. In this sense, the Sustainable Development Solutions of [United Nations \(2023\)](#) published since 2012 a World Happiness Report that contains a ranking of national happiness and emphasize the main factors that's affect the people happiness. Thus, the concept of quality of life cannot be defined exclusively in terms of objective life conditions but must also take into account subjective aspects such as perceived standard of living or happiness. [Maggino and Ruviglioni \(2008\)](#) proposed a classification of the objective components in two levels: micro, which covers individual life conditions; and macro, which refers to the economic, social and health contexts. Regarding the subjective component, this relates to an individual life assessment, gauged through individuals' or groups' answers to questions about happiness or satisfaction with their lives. Hence, analyses of individuals'

perceived quality of life refer to subjective quality of life (Ivaldi *et al.*, 2016). In this paper, we analyze individuals' perceived quality of life with a particular emphasis on measuring residents' happiness related to satisfaction with life in the city.

An increasingly important line of research examines the effectiveness of tourism in facilitating and supporting quality of life policies that aim to reduce poverty in the host communities, revitalize the heritage and culture of the community, conserve and protect natural and cultural resources and ensure sustainability. This line of research should help ensure that quality tourism experiences can be provided while at the same time avoiding the overexploitation of resources. Similarly, the aim should be to promote conservation of a city's heritage for future generations, but without affecting the quality of life of the current generation of residents. As such, the research should focus on analyzing the impact of tourism on residents' life satisfaction, a key aspect in the development of tourism and of cities. Nevertheless, this impact has already been analyzed from a number of different perspectives, without reaching a general consensus. Some studies have found that tourism has a positive impact on a range of factors and on residents' quality of life, while others emphasize the negative effects. Moreover, there is no general agreement as to how to measure quality of life; objective or subjective approach. These studies are analyzed in the literature review section.

In this study, following the recommendations of Perdue *et al.* (2010) we use a subjective approach. They argue that research on the value of tourism has undergone a shift towards a greater focus on non-economic measures such as quality of life and satisfaction, leaving aside other ways of measuring quality of life based primarily on economic variables. In this regard, a valuable source of information is the Flash Eurobarometer 419 by Eurostat in 2015; it collects and reports European citizens' responses to survey questions on their perceived quality of life.

In addition, using data from this survey enables us to carry out an analysis at the city level. Analyzing quality of life at city level enables an assessment of more homogeneous groups of citizens than in cases where the focus is on countries or regions. This aspect represents another novel contribution of this paper, since most of the existing studies of the relationship between tourism and quality of life have been carried out at country level (Somarriba *et al.*, 2015), or at best, at the NUTS 2 level in Europe (Okulicz-Kozaryn and Strzelecka, 2017). However, there are no previous studies at the city level, except those that focus on the analysis of specific cities (Jeon *et al.*, 2016) or those that analyze quality of life in cities but without reference to its relationship with tourism (Weziak-Białowolska, 2016).

Thus, in this paper to solve the limitations that we have seen in the literature, we develop an analysis in order to test the effects of world heritage status in the residents' perceived quality of life but considering the quality of life with a subjective perspective at city level. This study makes three contributions in the literature because we consider the world heritage status; measure quality of life from a subjective point of view; and develop the study at local level.

The rest of the article is structured as follows. First, we present a review of the literature that has allowed us to establish the theoretical bases of the hypotheses to be tested. Later, we present the source of the data used and discuss how to measure the different concepts considered. We also provide a brief justification for and explanation of the statistical techniques used to test the hypotheses. Following that, we detail the main results and their implications, before presenting the main conclusions drawn and the future lines of research that this study opens up.

2. Literature review

There have been two main approaches to the analysis of the impact of tourism on quality of life: the first is based on analyzing the impact of tourism on the well-being of the host

communities (Yu *et al.*, 2011; Uysal *et al.*, 2016); while the second focuses on a people-centered analysis, whether tourists or residents (Andereck and Nyaupane, 2011; Nawijn and Mitas, 2012; Kim *et al.*, 2013; Bimonte and Faralla, 2014). That said, much of the attention has focused on the tourists (Prebensen *et al.*, 2016), rather than residents (Kim *et al.*, 2013; Woo *et al.*, 2015). The main conclusion of these studies that take a tourist-centered perspective is that tourism has a limited effect on the tourist's happiness: travel ranks only 13th among happiness-inducing factors (Ratz and Michalko, 2011). An excellent review of these aspects based on an analysis of the residents of host communities and tourists can be found in Uysal *et al.* (2016). They conclude that the vast majority of studies analyzing these two dimensions find that tourism experiences and activities have a significant effect on both tourists' overall life satisfaction and the well-being of residents. Hence, the objective of this study is to analyze the influence of tourism development on residents' quality of life; to date, there has been very little focus on residents in the literature, although they are undoubtedly an important group for tourism.

The externalities generated as a result of tourism development can be categorized into different domains relating to: cultural heritage (Shahzalal, 2016; Akova and Atsız, 2019), the environment (Yu *et al.*, 2011), urban security (Lankford and Howard, 1994), life satisfaction (Okulicz-Kozaryn and Strzelecka, 2017), residents' cultural life (Perucca, 2019); or happiness (Rivera *et al.*, 2016). Of all these domains, it is worth highlighting the analysis of the effect of tourism development on life satisfaction or happiness from the point of view of residents. This approach has not been extensively developed, as the subjective assessment of quality of life is complicated by the lack of official sources of information, with measurements being made on the basis of individual surveys. Measured in this way, quality of life refers to a kind of emotional satisfaction; there is little information available on this concept, but happiness stands out as one of the most important components of subjective well-being. In this sense, Rivera *et al.* (2016) conclude that tourism development and happiness are positively correlated but only weakly so, emphasizing the important role played by social comparison in happiness. Thus, in this paper we analyze the effects of achieving world heritage status on life satisfaction and happiness. In so doing, we consider the fact that tourism can also affect human capital through education, health and the quality of jobs. Moreover, cultural tourism development in world heritage cities involves a special emphasis on aspects related to the environment and heritage conservation, so residents in these cities should have a better perception of these aspects.

Focusing the analysis on the influence of tourism on happiness requires an understanding of the key factors that affect residents' happiness, Graham *et al.* (2011) suggest that improving health and education, demographic variables, community connections and life opportunities, can make people happier. Oswald (1997) states that sociodemographic variables play a key role in explaining the variation in happiness, with aspects such as job security or leisure time also exerting an effect. Thus, in this paper we consider the influence that world heritage status has on each of these aspects and thus indirectly on residents' happiness.

Residents' happiness is undoubtedly a key issue given that happy residents tend to behave in a friendly, hospitable manner towards tourists, thereby positively influencing tourists' perception of the destination and their likelihood of returning (Carmichael, 2006). Andereck and Nyaupane (2011), Nawijn and Mitas (2012) and Kim *et al.* (2013) also refer to the importance of residents' support for the industry. Sanetra_Szeliga (2022) emphasized the culture and heritage as a potential opportunity to improve the quality of life for residents analyzing the case of Wrocław. In their study focusing on Arizona residents, Andereck and Nyaupane (2011) showed that the perceived personal benefits derived from tourism mediated the effect of the economic aspects of quality of life on the perceptions of the role of tourism in the local economy. Nawijn and Mitas (2012) investigated the impact of tourism on the

happiness of residents of Palma de Mallorca, accounting for emotional and cognitive components. Their findings showed that tourism affected only the cognitive component of residents' well-being and not the affective component. [Kim et al. \(2013\)](#) examined how tourism affects multiple domains of life satisfaction for residents in Virginia (USA) and found that various dimensions of tourism (economic, social, cultural and environmental) influence residents' overall life satisfaction. However, [Richards \(2021\)](#) considers that the new cultural tourism trends include the expansion of the spaces that these tourists wish to discover immersing in the resident life and street activities. The extreme of it means to discover new areas of the city where tourists don't go, and these new experiences include interactions with local people. Thus, for Richards the sole correlation between world heritage and resident quality of life is not as relevant as could seem. [Battis-Schinke et al. \(2021\)](#) and [Ksiazek et al. \(2022\)](#) analyzing 10 towns in the Polish-German borderland, showed that, it is adequately managed, cultural heritage contributes to all three pillars of sustainability and predominantly to socio-psychological dimensions of urban quality of life. [Biljana et al. \(2023\)](#) propose a sustainability model based on UNESCO Outstanding Universal Value (OUV) to evaluate the effect of tourism over the residents' perception of quality of life in Ohrid (North Macedonia) (WH destination) concluding that tourism has a beneficial economic impact but with a negative influence on the residents' perception of quality of life. In this regard, we propose that achieving world heritage status could positively affect the happiness of residents. It is reasonable to suppose that:

H1. World heritage status positively affects residents' happiness.

It is not possible to carry out an overall analysis of the effect of a city's world heritage status on quality of life, nor can it be analysed based on a component such as happiness. Rather, it is necessary to analyze the effect that heritage status has on the various aspects that influence quality of life. This analysis is particularly complex since there is no clear conclusion regarding the positive or negative impact of tourism; indeed, the development of tourism can trigger a variety of economic, sociocultural and environmental effects on a destination. Although it is expected to have positive effects and to improve the lives of residents, this is not always the case. Some of the positive aspects worth highlighting are: rising standards of living; job creation; improved appearance of the community; tourism revenue; attracting investment ([Zhang et al., 2015](#)). Of these positive aspects, it is worth noting that achieving world heritage status should raise the resident's standard of living as tourism fosters the development of cultural activities, increasing the number of museums, plays, etc. Moreover, by attracting tourists and investors, tourism should enhance job creation. We can thus propose the following hypotheses:

H2. World heritage status has a positive influence on cultural facilities in the city.

H3. World heritage status has a positive influence on the ease of finding work.

However, other authors point to negative aspects such as: overcrowding; traffic congestion; loss of authenticity and social value of tangible cultural assets caused by mass tourism; the deterioration of host countries' traditional local culture; and increased pollution ([Ashaton-Adie et al., 2020](#); [Bobic and Akhava, 2022](#)). Some of the notable negative aspects related to residents' quality of life include: the loss of cultural identity and historic resources; environmental degradation; crowds; noise; rubbish; traffic; parking problems; water pollution; rising crime; increased cost of living; friction between residents and tourists; and changes in residents' way of life ([Bastias-Perex and Var, 1995](#)). Other authors such as [Ander et al. \(2013\)](#) consider the well-being including in health and analyze the effect of heritage over the health and well-being. That said, most of these aspects are carefully considered when awarding world heritage status, as the main objectives of being listed as a heritage site

include the preservation of the city's heritage and the development of tourism in a sustainable way that does not affect either current residents' or future citizens' quality of life. This means that the negative aspects highlighted in the literature—the problems generated by rubbish; transport; environmental degradation leading to pollution, especially noise pollution and poor air quality and higher crime rates—can be mitigated by the achievement of world heritage status. Or, conversely, the growing number of tourists attracted by the heritage status may exacerbate these negative effects. Considering this, we formulate the following hypotheses:

- H4.* World heritage status has a negative influence on residents' perception of the noise level.
- H5.* World heritage status has a negative influence on residents' perception of the transport system.
- H6.* World heritage status has a negative influence on residents' perception of the city's cleanliness
- H7.* World heritage status has a negative influence on residents' perception of the air quality
- H8.* World heritage status has a negative influence on residents' perception of safety in the city.

In addition, some studies indicate that residents' perceptions of their quality of life and their attitude towards tourism tend to differ according to the level of development of tourism, since most of the benefits accrue in the initial stages (Kim *et al.*, 2013). Okulicz-Kozaryn and Strzelecka (2017) find that tourism at low levels of development contributes more to happiness than highly-developed tourism. As such, higher levels of tourism development are more likely to lead to unhappy residents and, in turn, to more negative attitudes towards tourism. This relationship may suggest that residents in world heritage cities—which are cities with greater development and recognition of tourism—must be less happy. In this regard, we assume that cities which have held their world heritage status for longer have a higher level of development of tourism and that tourism is more entrenched there than in those cities that joined the list more recently. Therefore, we can hypothesize that:

- H9.* The year that the city achieves world heritage status has a negative influence on the perception of happiness.

3. Methodology

The empirical analysis in this research is based on the city-level information available for 2015 in the Flash Eurobarometer 419 (European Union, 2016) developed by Eurostat. This survey represents the opinion of nearly 40,000 citizens from 79 European cities and 4 greater cities, although these greater cities have been left out of the analysis. This means that around 500 people were surveyed in each of these 79 cities, located in the 28 member states of the European Union, as well as in Turkey, Iceland, Norway and Switzerland.

Respondents evaluated the perceived quality of different services such as education, transport and health, as well as elements such as urban safety, noise and air pollution. They also addressed the way they perceive aspects such as migration, safety and life in the city, a key question for measuring people's happiness in their place of residence. For each of the 28 indicators, the surveyed citizens had to provide an answer on a 4-point Likert scale (strongly agree; somewhat agree; somewhat disagree; strongly disagree), therefore lower values reflect respondents' greater satisfaction.

The use of this information offers an alternative to existing approaches, as it allows the researcher to work with city-level information and is based on a subjective approach to measuring quality of life. This local approach is particularly valuable when measuring perceptions; evaluating perceptions at the country level often results in anecdotal evidence, since residents' perceptions necessarily vary over such a large territory and respondents' tend to assign a value based on their perception of their immediate surroundings. However, despite the interesting official information it offers, the Flash Eurobarometer 419 has not been widely exploited in the literature, therefore, we use this Eurobarometer to develop this novel proposal to measure the influence of achieving world heritage status—a critical factor for tourism development—on residents' quality of life.

As a first step, we classify the cities in terms of whether or not they have been awarded world heritage status by UNESCO. Thus, of the 79 cities with information in the Flash Eurobarometer 419, 24 have been awarded heritage status (Table 1). To classify the cities as heritage or not we have used information available in world heritage site website (<https://www.worldheritagesite.org/>) considering only the cities that have the cultural category taking into account that the category represents the core of why a site has become a world heritage site.

In addition to this classification, the year that heritage status was awarded has been included as an indicator of the level of development of cultural tourism. In cities that have held this status for longer, cultural tourism is presumably more established, and this affects residents' quality of life according to the literature review presented in the previous section.

Another noteworthy aspect is the inclusion of happiness in the analysis as a central element of quality of life; this key subjective aspect is incorporated by considering residents' perceived satisfaction with life in their city. There are two theoretical approaches to measuring this subjective quality: there are those who consider that quality of life can be measured subjectively by focusing on a single variable that captures overall satisfaction with life; while others argue that in order to measure it, a number of different domains must be accounted for. Thus, some quality-of-life researchers assume that quality of life can be captured through a summative satisfaction score, or an average value for life domains such as the material life, emotional life, environmental life, family life, community life and leisure life (Genc, 2012). For other authors, however, general satisfaction with life is usually measured by means of a single-item question, such as "How would you rate your life overall?" Perucca (2019) measured residents' perception of cultural life in their city through the question, "Generally speaking, please tell me if you are very satisfied, rather satisfied, rather unsatisfied or not at all satisfied with cultural facilities such as concert halls, theatres, museums and libraries in your city?" Weziak-Białowolska (2016), the response to the question

Country	City	Year	Country	City	Year	Country	City	Year
Austria	Graz	1999	France	Paris	1991	Latvia	Riga	1997
Austria	Wien	2001	France	Strasbourg	1988	Malta	Valletta	1980
Belgium	Brussel	1998	Hungary	Budapest	1987	The Netherlands	Amsterdam	1996
Czech Republic	Praha	1992	Italy	Napoli	1995	The Netherlands	Rotterdam	2014
Germany	Berlin	1990	Italy	Roma	1980	Poland	Krakow	1978
Estonia	Tallinn	1997	Italy	Verona	2000	Poland	Warszawa	1980
Spain	Oviedo	1985	Lithuania	Vilnius	1994	Sweden	Stockholm	1991
France	Bordeaux	2007	Luxembourg	Luxembourg	1994	Turkey	Istanbul	1985

Source(s): Authors' own elaboration

Table 1. Cities and the year that world heritage status was awarded

about satisfaction with life in a city represents an indicator of urban quality of life. Veenhoven (2005) suggested that happiness reveals the individual's assessment of general aspects of life and life conditions, and how much the individual likes the life that he/she lives; therefore, the central concept of happiness is the subjective assessment of one's life, or satisfaction with life. Somarriba *et al.* (2015) propose measuring happiness through the concept of "satisfaction with life in this city". In this paper, we follow this latter approach and propose that the way to measure residents' happiness with their city is through their response to the statement "I am satisfied with life in ...".

Given the characteristics of the available information, statistical techniques for analyzing qualitative variables are the most suitable in this case. Thus, we first determine whether there is a relationship between the qualitative variables involved in each of the hypotheses. To that end, we use contingency table analysis with the chi-square statistic. The null hypothesis to be tested is that of independence between the characteristics, with the alternative being dependence between them. The chi-square statistic is defined by the following expression:

$$\chi^2 = \sum_{i=1}^p \sum_{j=1}^q \frac{(n_{ij} - E_{ij})^2}{E_{ij}}$$

where n_{ij} are the values observed in the contingency table for each pair of modalities of the analyzed characteristics and E_{ij} are the theoretically expected values under the assumption that variables X and Y are independent.

Once the existence of a relationship has been established, we carry out a non-parametric analysis of variance (ANOVA). This allows us to determine whether there are significant differences between the mean values for each of the variables in the group of world heritage cities and the non-world heritage cities. To that end, assuming the samples are independent, we apply the Mann–Whitney U test. This test is an alternative to the Student-t test when normally-distributed samples cannot be assumed, a situation that may arise when the variable is a Likert scale, although we verify this using the Kolmogorov–Smirnov test. The Mann–Whitney U statistic is used to test the null hypothesis that the mean values in the samples considered are equal, versus the alternative that the mean values are different. The U statistic used for this test is the minimum of U_1 and U_2 :

$$U_1 = n_1 n_2 + \frac{n_1(n_1 + 1)}{2} - R_1$$

$$U_2 = n_1 n_2 + \frac{n_2(n_2 + 1)}{2} - R_2$$

where n_1 and n_2 are the sizes of each sample and R_1 and R_2 are the rank sums of each sample.

In cases where the difference is statistically significant, the mean value for each group is determined to see the effect of the world heritage status on each of the characteristics analyzed. Finally, to analyze the effect of the year the city achieved heritage status on residents' satisfaction with life in the world heritage city, we use a Pearson correlation coefficient, which allows us to determine if the relationship between the variables is positive or negative.

4. Results

The methodology described in the previous section allows to develop an analysis of the information for the case of the 79 European cities with available information to determine the influence that the world heritage status has on the perception of quality of life by part of

the residents. To be able to advance in the analysis of the information, the first thing is to determine the existence of a relationship between the different aspects related to the quality of life considered in hypotheses 1 to 8 and the world heritage status. So, the Chi-squared results of [Table 2](#) indicate that in no case is world heritage status independent of the different characteristics considered in hypotheses 1 to 8, being clear the influence that the heritage status in the perception by residents of the quality of life as a whole and in the different aspects analyzed.

Given these results, we expand the analysis to investigate the influence that a city's achievement of world heritage status has on the residents' perception of each of the characteristics considered. The Kolmogorov–Smirnov test results of [Table 2](#) are conclusive, and the data are not found to be normally-distributed in any of the cases. Moreover, the Mann–Whitney test results of [Table 2](#) allow to set out some initial conclusions. First, using the response to the statement “I am satisfied with life in . . .” as a variable that measures residents' happiness, we can conclude that there is a difference between residents' happiness in world heritage cities versus non-world heritage cities. Therefore, being awarded heritage status affects the happiness of a city's residents, although it is yet to be determined whether that influence is positive or negative.

If we analyze its influence on the perception of the cultural activities, the noise level, the air quality and the level of safety in the city, it can be seen that in all cases, world heritage status affects the residents' perception of these factors. However, in terms of perceptions of the cleanliness of the city and its public transport, we do not find significant differences between the residents of world heritage and non-world heritage cities. In light of these results, we reject [hypotheses 5](#) and [6](#), as it has been shown that achieving world heritage status does not influence residents' perceptions of cleanliness and public transport in the city. This may be due to the fact that tourism in cities that contain heritage sites is focused on certain areas of the city rather than the city as a whole. Therefore, residents of those cities do not perceive major effects of heritage status on public transport throughout the city or on the cleanliness of

	Chi-squared			Kolmogorov–Smirnov			Mann–Whitney		
	Chi-square	df	Sig. Level	N	Statistic	Sig. Level	U de Mann–Whitney	Z	Sig. Level
I am satisfied to live in . . .	70.547	4	0.000	39,900	0.344	0.000	161,700,513	−6.479	0.000
Cultural facilities such as concert halls, theaters, museums and libraries	55.517	4	0.000	39,900	0.303	0.000	160,480,348	−7.293	0.000
It is easy to find a job in . . .	166.703	4	0.000	39,900	0.162	0.000	157,026,184	−10.401	0.000
The noise level	171.195	4	0.000	39,900	0.270	0.000	155,702,099	−12.028	0.000
Public transport, for example the bus, tram or metro	28.595	4	0.000	39,900	0.287	0.000	166,335,092	−1.339	0.181
Cleanliness	14.984	4	0.005	39,900	0.267	0.000	166,341,076	−1.343	0.179
The quality of the air	527.142	4	0.000	39,900	0.268	0.000	146,925,676	−20.804	0.000
I feel safe in . . .	89.715	4	0.000	39,900	0.275	0.000	160,780,415	−6.986	0.000

Source(s): Authors' own elaboration

Table 2. Chi-squared, Kolmogorov–Smirnov normality and Mann–Whitney tests

the whole city. This justification is based on the fact that normally, the residence of the citizens is located outside the areas with the greatest tourist concentration due to their declaration as world heritage city and they do not perceive in effect of said declaration on the aspects of cleaning and transport public.

These conclusions obtained would not be complete if we are unable to analyze whether the influence of the heritage status is positive or negative and, therefore, it is necessary to determine the mean value for each of the variables in world heritage and non-heritage cities (Table 3).

To analyze the results of Table 3 it should be noted that due to the way the variables are measured, a low value indicates greater satisfaction, while a higher value is an indicator of a lower level of satisfaction with the aspect in question. In the case of happiness, in general the level of satisfaction is quite high in both cases. However, the lower mean value corresponds to the non-world heritage cities. Therefore, we cannot accept H1, as heritage status does not have a positive influence on residents' happiness. In those cities not declared as world heritage cities, the perception of quality of life by citizens measured through happiness shows a better assessment, although it should be noted that in general the citizens surveyed show a great happiness in living in your city regardless of the declaration of it as world heritage or not world heritage city. In this case it is necessary to analyze whether the declaration as world heritage city weighs more on the happiness of the residents or, on the contrary, the lower presence of tourists in non-world heritage cities facilitates greater happiness of its residents.

World heritage city residents do have a better perception of the aspects related to cultural activities. Thus, we can accept H2 and suggest that the achievement of cultural heritage status leads to a greater endowment of cultural facilities in a city, which are positively appreciated by the residents. In this sense, it is obvious, and it has been empirically proven that the heritage status is associated with an incentive to cultural activities to consolidate the presence of tourists attracted by cultural tourism and that greater range of activities is valued as positive way for residents in those cities.

Another aspect that should be enhanced by world heritage status is job creation. This factor is the worst perceived by residents, although it is somewhat better perceived in world heritage cities, thus corroborating H3. However, it should be noted that fairly poor values are registered in both cases. This may well be because the available information is from 2015, just as Europe was emerging from one of the greatest economic crises in its history and at a time when finding work was hard, not just in the tourism sector. Although, it is necessary to emphasize the small incentive that the heritage status supposes.

There is a better perception of aspects related to noise level, air quality and safety in non-world heritage cities. As such, we can accept hypotheses 4, 7 and 8. This may be because, although being awarded world heritage status requires a series of commitments to the environment, the resulting influx of tourists has a negative impact on residents'

	Heritage cities	No heritage cities	Total
I am satisfied to live in . . .	1.572	1.535	1.546
Cultural facilities such as concert halls, theaters, museums and libraries	1.982	2.060	2.036
It is easy to find a job in . . .	3.033	3.154	3.118
The noise level	2.387	2.271	2.306
The quality of the air	2.477	2.276	2.337
I feel safe in . . .	2.077	2.022	2.038

Table 3.
Average values

Note(s): Italic values are the lowest average
Source(s): Authors' own elaboration

perception of these aspects, which outweigh the measures put in place by various authorities to address these issues. This aspect is something that must be considered by the managers of the world heritage cities since one of the key aspects in this declaration is the development of sustainable tourism and, nevertheless, the results show that, either there is no such sustainability, or the perception on the part of the residents is not good in those aspects.

Finally, we consider that the year a city was awarded heritage status may be an indicator of a higher level of tourism development. The value of the Pearson correlation coefficient between happiness and the year a city was awarded heritage status is -0.071 , therefore a negative effect exists although it is not statistically significant and therefore, we reject [H9](#).

5. Conclusions

The analysis of the effect of tourism on residents' quality of life is an important element in enhancing tourism in a city. Nevertheless, the analysis of this influence at city level has received little attention in the literature and fewer studies have taken a subjective approach. In this study, we carried out an analysis to determine the influence of tourism on different aspects related to residents' subjective perception of quality of life distinguishing between world heritage cities—where attracting tourists is a major objective—and non-world heritage cities, which emphasize aspects other than tourism.

The results show the positive influence of world heritage status on residents' perception of the cultural activities in the city and on the ease of finding work. Conversely, its effect on the noise level, air quality and safety in the city was found to be negative, as residents in non-world heritage cities register higher values for their perception of these factors. Therefore, the tourist draw resulting from being awarded heritage status enhances certain aspects that shape residents' perception of their quality of life. That said, care must be taken with other aspects that are adversely affected by the influx of tourists due to heritage status. We should make particular mention of the effect on residents' happiness; despite the existence of significant differences between world heritage and non-world heritage cities in terms of residents' perceptions, the real difference in mean values is small. This finding underscores the fact that, on average, European citizens report a good score for this aspect in the 79 cities with information available.

From these results, highlight the need to address tourism authorities in world heritage cities from a sustainable point of view with a special emphasis on aspects related to safety, noise level and air quality given that, residents of these cities value these aspects that are key in the sustainable development of tourism in those cities in a rather poor way. It must be taken into account that the mere existence of cultural heritage does not imply a contribution to the quality of life and sustainable development, but it is a potential that requires activation with integrated management. In this sense, sustainable cultural tourism is encouraged from Europe as a regional development strategy and different actions are proposed to promote it, which can be consulted in the [European Commission \(2023\)](#) and which can make it possible to alleviate several negative effects highlighted in this paper, for example, enhancing cycling routes can reduce the effects on noise level and air quality detected as negative in this paper. Furthermore, it must be taken into account that tourism planning at the local level may not be effective, requiring top-down planning, starting with planning developed by European organizations down to local levels.

This work opens up new lines of research; for example, researchers could examine the evolution of these perceptions in order to determine whether the influence of achieving world heritage status on residents' perception of quality of life changes over time and whether it is affected by external factors. In addition, information covering a wider geographical scope, including cities from other continents, would allow researchers to determine whether the

effects analyzed relate only to the European continent or if they can be extrapolated to other areas of the world. Furthermore, we could include aspects of the Operational Guidelines for world heritage and most recent instruments such as the ICOMOS International Cultural Tourism Charter or the VMAST (UNESCO World Heritage Visitor Management Assessment and Strategy Tool). Finally, it is necessary highlight that this study has been developed with information before the COVID-19 and therefore, when information will have available, it is very important to analyze the effects of this pandemic without precedents in the results obtained.

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World heritage
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