Article
Can Destination Cards Help to Shape Areas’ Sustainability?
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Abstract: This paper examines whether destination cards can simultaneously serve tourists’ needs and sustainability goals. It provides useful insights for tourism authorities and policymakers in designing a smart tourist card that meets the needs of tourists while preserving and supporting areas’ wellbeing. Taking Thessaloniki city as a case study, a tourist survey, designed based on the key features of European destination cards, was implemented to identify needs and motivations. Interesting insight was revealed: tourists want to self-explore the city, are coming with their families, are history-lovers and gastronomy-keen, and are strongly willing to be provided with a destination card offering unlimited access to public transport. The latter reveals an opportunity for the city; the tourists are willing to use sustainable mobility options, which means that a base of sustainable travelling exists. The proposed Thessaloniki smart card can bring together tourists’ needs with the city’s sustainability goals; the development of tourist packages, including sustainable mobility provisions, walking-talking tours, and bike rentals, should be the backbone of the card. The next challenge for the city is to build a cooperation network to support this smart destination card implementation and promotion.

Keywords: tourism; destination cards; tourists’ needs; sustainability

1. Introduction
The shock event of the COVID-19 pandemic marked a digitalization acceleration [1,2], ‘pushing’ destinations into a process of smart transformation and exploiting the powers of new technologies in order to create opportunities while serving sustainability and resilience visions [3–5]. People are willing to re-invest in travelling again, discovering new places and experiencing novel forms of tourism within safe and reliable destinations [6–8]. Additionally, the severe fallout from Russia’s aggression against Ukraine, unstable geopolitical situations, and the energy and economic crises are posing new challenges to the sector, as tourism [9–11] is considered as one of economy’s main boosters with large influence on GDP and constituting an important element of social and political development [12]. At the same time, tourism can be blamed for environmental degradation, loss of local identity, and natural and cultural heritage destruction, so there is an impelling need for tourist destinations to have a coordinated and holistic response towards more sustainable modes of development, and towards offering sustainable, innovative provisions to tourists [13–15]. Sustainability and innovation must be the rule, not exceptions. This dipole is the main challenge that should be served in the next few years at European and global level through targeted policies and innovative governance [16–18], technological solutions and novel touristic provisions [19–24], awareness raising, and smart marketing campaigns [25–29].

1.1. Efforts to Reach Sustainable Tourism
The need to boost tourism sector competitiveness by futureproofing against sustainability challenges has been widely discussed for years. Sustainable development has long been recognized as a necessity, as countries acknowledge the high pressure human activity puts on resources. The Earth Summit in Rio de Janeiro in 1992 brought together United
Nations countries to work towards sustainable environments at the national level [30]. However, the transition from words to actions has been challenging due to vague notions of sustainability, uncertainty regarding the impact of changes [31], a rapidly changing environment, low capacity for innovation in planning, and limited motivation and incentives to adopt a new model. Several key milestones and developments have shaped the focus on sustainable tourism and the need for its implementation. The first World Conference on Sustainable Tourism, held three years after the Earth Summit, emphasized the importance of global coordination and acceleration of efforts towards sustainability [32]. It called for the management of resources at a global level while considering local peculiarities and community needs and emphasized the need for collaboration between public and private sectors. Stakeholders such as researchers, industry workers, citizens, and tourists were identified as crucial in promoting sustainability principles. The Cape Town declaration in 2002 further emphasized responsible tourism, aiming to minimize negative impacts and enhance the wellbeing of host communities [33]. Despite these efforts, there remains a gap between the goals set in tourism agendas and their effective implementation [34,35]. A multi-layer approach in sustainable and responsible tourism planning was still missing, and was caused mainly by the complexity of the sector and tourism system’s rapid and frequent changes [36–39]. The ST + 20 World Summit on Sustainable Tourism in 2015 brought together key actors to integrate sustainability into tourism policies and operations, aligned with the UN Sustainable Development Goals [40–43]. Global tourism has experienced significant growth [44], but the lack of a shared understanding of the benefits of sustainable practices has hindered the goals’ widespread adoption [45]. The COVID-19 pandemic served as a turning point, highlighting the urgency of a shift towards a more sustainable and resilient tourism industry. In Europe, the Transition Pathway for tourism and the European Agenda for Tourism 2030 were introduced to decouple economic growth from resource consumption and to promote sustainable practices [46–48]. Smart solutions have been proposed across various dimensions of tourism, including accessibility, accommodation, amenities, attractions, activities, and governance and planning. These solutions range from promoting sustainable mobility options to incorporating renewable energy, adopting circular economy practices, and leveraging new technologies [49,50].

1.2. Destination Cards as a Tool Serving Tourists’ Needs and Sustainability Goals

One of the measures identified for simultaneously serving sustainability goals and tourists’ needs are the touristic cards. Firstly, tourists require access to comprehensive and up-to-date information about the destination, including attractions, activities, transportation options, and local services. Additionally, they seek a seamless and hassle-free experience throughout their journey, from planning to on-site navigation. Personalization and customization are also important, as tourists expect tailored experiences aligned with their preferences and interests. Safety and security play a crucial role, with tourists seeking reliable information and updates on safety measures and emergency services [51–55]. Moreover, both locals and tourists are increasingly concerned about sustainability and responsible tourism practices, desiring to make informed choices that minimize their environmental impact and contribute to local communities [56]. Authentic local experiences that allow them to engage with the destination’s culture and traditions are highly valued. Furthermore, tourists appreciate social connectivity, whether through connecting with fellow travelers or sharing their experiences online [57]. By addressing these needs, a smart touristic card can enhance the overall tourist experience, promote sustainability, and contribute to the destination’s branding goals.

Taking into account the above policy directions and following good practices for co-created smart solutions and provisions that serve parallel sustainability and branding goals while satisfying and transforming tourists into destinations’ ambassadors, the current paper focuses on a co-created smart destination card product for Thessaloniki, Greece. The paper tries to explore tourists’ needs, joining them with city’s tourism strategy and providing an app: a one-stop-shop for the destination. The main goal of the smart destination card,
and of the current research that focuses on examining the specific case of Thessaloniki as a destination and extracting its tourists’ needs, is to increase area’s visibility (virtual experiences for digital tourists who have the potential of being transformed into real tourists) while raising awareness and rewarding sustainable choices (i.e., discounts while combining active mobility with sightseeing).

The remainder of this paper is structured as follows: Section 2 presents a literature review of destinations cards, their role, and their link to sustainability; Section 3 briefly describes Thessaloniki as a tourism destination and presents the methodology followed for identifying the needs and motivations of tourists (survey), which will be incorporated into the design of the product, the smart destination card of Thessaloniki; Section 4 demonstrates the results of interactions with the tourists; and Section 5 discusses the results in light of sustainability implications. Finally, Section 6 summarizes the findings and presents the limitations and avenues for future research.

2. Literature Review

Destination cards have increased in popularity among potential visitors and, therefore, mapping the semantic boundaries of these cards will help both in understanding the tool itself and in understanding the current needs of the visitors. Smart use of destination cards is linked with the promotion of sustainability goals, i.e., promoting sustainable mobility options for sightseeing, offering discounts, and rewards for sustainable and responsible behaviors [58].

According to Leung [59], the steep rise of tourist cards is due to the patchwork of special offers and discounts they offer and, as a result, destinations consider them a promising marketing tool for improving their competitive profile. Lee et al. [60], incorporating the payment function, defined tourist cards as a service that offers a contactless payment method during a trip. Therefore, combining the above two theories, Digiorgio [61] proposed a new definition, arguing that destination cards are a set of aggregate tickets that enable visitors to access a range of services at a significantly lower total price than individual services, while at the same time enabling visitors to purchase these services using the contactless payment method.

Beginning, therefore, from the first generation of destination cards, according to Kotoula et al. [51], their function was limited to a package offering free or discounted access to specific tourist attractions available in each tourist destination. The first tourist card was issued in Stockholm in 1970, with the aim of improving mobility and facilitating its visitors in their tour of the city [51]. The second generation of destination cards, now equipped with a microchip, can collect behavioral data, recording the services chosen (e.g., trip recording, preferred recording services used, and expenditures), making them a marketing tool for consumer behavior research [62,63] and transforming them into an arsenal for the support of sustainability promotion.

The third generation of destination cards, according to Basili et al. [64] and Angeloni [65], represents a ‘mobile travel assistant’, which will contain a wide range of information and services (e.g., information, mobile ticketing, mobile payment, and loyalty point management). The ‘tourist pack’, a primary project in the creation of third-generation destination cards, is a smart destination card that could be obtained from the largest public postal operator in Italy and from the destination management organization (DMO) of Basilicata in Italy [65]. This tourist card is embedded in the mobile application and provides alternative payment options, as well as a range of discounted product-services [65]. The main offers included: free entry or discounts to museums, churches, monuments, free use of public transport, a guide with a map, and in some cases discounts in restaurants, shops, leisure parks, guided tours, events, car rental, bicycle rental, urban parking, etc. The period of validity varies from one to three days, which is the typical duration of a tourist stay in the city. The card is either date-stamped or contains a smart microchip. Due to the use of a destination card, the tourist experience can be monitored and personalized services can be offered. This tool, therefore, according to Angeloni [65] represents a ‘mobile travel assistant’.
assistant’ that provides users with new levels of comfort and optimization in their overall travel experience.

In line with the above, mobile technologies enable the creation of a more general transformation of the travel process [66–68]. The third-generation tourist card, which is enriched with various online services and is a ‘mobile travel guide’, enables the visitor to create his/her journey before arriving at the destination [69]. Thus, the visitor, through the ‘primary digital assistant’, can enhance and optimize their experience by receiving information and digital services for the place in advance [61]. This, according to one paper [64], has increased ‘value for money’ transactions and at the same time reduced the ‘neutral time’ of a trip, resulting in ‘value for time’ transactions.

Moreover, the centralized process of services provided by a tourist card helps the visitor to organize, in such a way, his/her time so that he/she can access more attractions and points of interest than without it. One paper [70] concluded that the tourist card acts as ‘an incentive for tourists to visit attractions that they would not otherwise include in their itinerary’ and this results in them perceiving the area as more attractive. Another paper [71], conducting a survey in Germany, concluded that 92% of cardholders reported that they had visited more places than they had originally intended because of the increased number of attractions covered by the cards. Furthermore, in the same study, it was shown that there was an increased use of public transport when visiting places of interest, thus promoting sustainable travel and sustainable tourism [71–73].

Therefore, a tourist card is a useful tool, both for visitors, since it represents a mobile travel assistant, and for the destinations themselves, since it highlights more points of tourist interest and not necessarily only the most popular ones [74]. The latter helps to avoid overcrowding, encouraging a controlled tourist flow to the attraction in question, and can also act as a tool for demand/visitor management (seasonality of a destination) by highlighting activities and areas within a destination for the whole year [75].

In addition, in terms of benefits to the local community, the destination card promotes a bottom-up and collaborative model [76] as it creates a network of synergies between public actors (regions, municipalities, institutions) and the private sector (entrepreneurs of interest). Collaborative entrepreneurship enhances the creation of a more appropriate commercial product because it results from the exchange of information, knowledge, and ideas of the respective entity/entrepreneur [77]. As one study [78] states, firms operating within strategic networks can share information and resources, increasing the economic value of a commodity. Thus, tourist cards are a good practice for public-private initiatives in marketing and destination management [79].

Consequently, tourist cards/destination cards or tourist passes are used as tools both for the management of tourist destinations and for expanding coverage of tourist needs [80]. The technological tools incorporated into the tourist card have led to an optimized version of the tourist card, turning it into a complete travel assistant, now enriched with information that holistically covers a destination and with functions that facilitate a visitor’s travel planning [68].

It is obvious that the transformation that tourist cards have undergone with the development of technology has created a new playing field for users. A smart tourist card must provide optimized tools tailored to the needs of visitors so that they are accessible to all [81]. Therefore, the need to cover this field of research is extremely important as through the investigation of tourism needs, it will become even clearer which functions a smart tourist card should cover, which services should be included, and how they should be presented. This research attempts to decode tourism needs in order to enable the creation of innovative, smart tourist cards that will be useful tools for both the potential visitor and the host location. After clarifying the terms and content of the existing cards, both through the approved scientific research community, it is then necessary to follow through the exploratory approach with an inventory of the most popular smart tourist cards, through which we will be able to extract useful material, services, and tools to create a survey of visitor needs. Through this process, it will be possible to show which features should be
included within the cards to constitute a successful policy. The study as presented below has led to both the optimization of potential smart tourist cards and the creation of a new definition that captures the full socio-economic scope of such a policy.

Destination tourist cards have the potential to offer a selected combination of primary and secondary products of the host destination. They include natural, cultural, historical, and social points of interest [74], while at the same time they can offer specific discounts on public transport, accommodation and catering services, parking services, souvenirs, alternative transport equipment rental, guided tours and tours of the destination, and a range of services that will make the visitor buy the tourist card [82].

Therefore, a thorough literature review, with an exploratory approach regarding the characteristics of existing tourist cards, is necessary for a full understanding of their use and contribution to the tourism field. For this research, after collecting and assembling the tourist cards, they were classified based on the existing categories that were derived through relevant scientific studies in order to carry out a survey of good practices. Specifically, the first category is tourist cards (1st and 2nd generation) and the second category is smart destination cards (3rd generation) [51,64,65].

Most of the European tourist cards studied in this paper have a validity period of 1 to 7 days, while their price is variable, depending on the days, season, and demand. The price range identified is from EUR 13 (simple provisions) to EUR 80 (including tours and more advanced experiences). In addition, discounts are offered for children aged 0–6 years and, in some cases, there are discounts for family packages (Hamburg Card, 2022).

Regarding the services included in their package, the most frequently recorded are unlimited use of public transport for the whole duration of the tourist card, entrance to selected museums/exhibitions/galleries, while at least four tourist cards include in their package unlimited entrance to their respective contracted points of interest (Innsbruck Card, Nuremberg Card, Stuttgart Card, Valencia Card). In addition, one of the main benefits identified was the use of a tourist bus (for a 2 h journey) and the provision of information on attractions, either in the form of magazines or audio guides.

Furthermore, the destination cards studied offer special discounts in restaurants, cafés, and gift-souvenir shops, with the discount ranging from 10–20%. Regarding ‘fast track entry’ and ‘airport transfer’ services, very few tourist cards include these. As regards the provision of maps and tourist guides, few cards include such material in the offer package, while only one tourist card provides a tour and information application, but without having this integrated into the card itself.

Through the exploratory analysis of smart tourist cards that was conducted by the authors of the current paper, a summary table of good practices was created (Table 1), which brings together the characteristics of cards that exist to date. This table was used as a guide for the development of a new card: the Thessaloniki touristic card, which is the case study for the current work.

Thus, destination cards, by bringing all these elements together, simplify a complex system in the eyes of a visitor. The identification of both good practices and the possible shortcomings of existing tourist cards is, therefore, a very important tool for a destination to strengthen its competitive products. One of their key features is the Premium/Simple version option, which enables the visitor to choose between the basic version of the smart tourist card, with specific service benefits, and the Premium version with additional services. In the basic version, the visitor does not have to pay a price for the application, but instead can download it on his/her mobile device completely free of charge, with limited access to its functions. In the Premium version, the visitor has the possibility, by paying the corresponding fee, to have access to a variety of services such as a complete tourist guide, specialized tourist packages, tour guide audio, larger discounts in restaurants/gift shops, and more points of interest than the basic version.

In addition, the tourist card and the mobile ticket optimize the visitor’s journey, as they enable the visitor to have all his/her data registered in a QR Code, thus avoiding printing vouchers. Two additional features are the mobile wallet and the provision of
booking, which enable the individual to pay without the use of card or cash, which mainly optimizes data security.

Table 1. Summary of key features of the sample of European destination cards [authors’ elaboration based on the review].

<table>
<thead>
<tr>
<th>Feature</th>
<th>London Pass</th>
<th>Paris Pass</th>
<th>Vienna Pass</th>
<th>Amsterdam Pass</th>
<th>Gothenburg Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free Download Application</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maps</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City Guide</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tour Bus</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unlimited/Limited Free Public Transport Routes</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Alternative Methods of Travel</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Selected Fast Track Entry</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed/Limited Attraction Information</td>
<td></td>
<td></td>
<td></td>
<td>Limited information</td>
<td>Limited information</td>
</tr>
<tr>
<td>Tour Guide Audio</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Virtual City/Culture Tours</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specialized Tour Packages</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Create Your Tour Plan</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Special Offers/Discounts on Events/Exhibitions</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>/Catering/Shops, etc.</td>
<td></td>
<td></td>
<td></td>
<td>Limited information</td>
<td>Limited information</td>
</tr>
<tr>
<td>Mobile Wallet</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different Payment Methods</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Money Back Guarantee</td>
<td>No</td>
<td>✔</td>
<td></td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Mobile Ticket</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special Category Discounts</td>
<td>30% (children)</td>
<td>40-70% (children)</td>
<td>50% (children)</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

In terms of tourist services, the free entrance to points of interest (depending on the duration of the card), the provision of a digital tourist guide in several languages, and the selected fast track entry, as well as discounts in restaurants, make the tourist products of the place even more attractive, because the cost is much lower than in the case of individual consumption.

In addition, creating such packages, which bring together all of these services in a tourist card in the form of a tourist guide, enables the visitor to have audiovisual material of the offered products before his/her visit. This has the effect of enabling the visitor to become familiar with all the options provided by a destination and to decide in advance what he or she wants to consume (trip planner). Furthermore, it is very important that the touristic offers are designed in such a way that destinations are protected, i.e., sustainable mobility should be heavily promoted within such cards. As one study [83] states, a smart tourist card with the above features induces the visitor to consume more products than he/she would consume without it, but can also support a shift to responsible behaviors [51].

As for the other services, the tour bus and unlimited public transport routes are considered two of the most attractive benefits of a tourist card. With the unlimited public transport service, the visitor can discover the destination at a much lower cost than the total sum of individual tickets. On the other hand, with this practice the destination is boosting their use while at the same time promoting the use of alternative means of transport and environmentally friendly policies in general.

On the other hand, innovative suggestions recorded by relevant studies were not identified in any of the tourist cards studied. In particular, services such as virtual cultural tours, alternative methods of payment, and suggestions according to the visitor’s profile in the form of notifications could be used as innovative tools that would make a new smart tourist card stand out from the existing ones [62].

3. Research Methods
3.1. The Case Study

Based on the above findings of the literature review on the powers and key features of destination cards, and with a view to propose an innovative card for a Greek city that will support increasing touristic flow while supporting the sustainability goals of the area, a dedicated survey was designed aiming to identify tourists’ needs and link them with
sustainability principles. Before presenting the survey, a quick presentation of the city and the city’s tourism growth goals follows.

Thessaloniki is the second-largest city in Greece, located in the region of Central Macedonia. Known for its rich history, diverse cultural heritage, and stunning natural beauty, it has become a popular destination for tourists from around the world. The city’s history dates back to ancient times, and it has been influenced by various civilizations throughout the centuries, including the Greeks, Romans, Byzantines, Ottomans, and Jews. This cultural diversity is reflected in the city’s architecture, museums, and galleries, making Thessaloniki a hub for art and history enthusiasts. Thessaloniki also boasts a vibrant culinary scene, with a wide range of local and international cuisines available in its many restaurants, cafes, and tavernas. Its location near the Aegean Sea and Mount Olympus also offers opportunities for outdoor activities such as hiking, swimming, and water sports. Furthermore, Thessaloniki is home to numerous festivals and events throughout the year, including the Thessaloniki International Fair, the Dimitria Festival, and the Thessaloniki Documentary Festival, among others. Overall, Thessaloniki offers a unique blend of history, culture, cuisine, and outdoor recreation, making it a must-visit destination for anyone traveling to Greece.

According to the ‘Thessaloniki Strategic Management and Branding Plan (2020–2030)’ conducted on behalf of Thessaloniki Tourism Organization, the goals set for the city are as follows:

- Enhancing the visibility and visitation of the city;
- Strengthening the occupancy rates of existing accommodation units;
- Expanding economic activities that contribute to tourism development and the creation of an integrated experience;
- Developing productive, intra-industry, and inter-industry connections at the local level with the aim of enhancing local partnerships;
- Strengthening investment in sectors directly and indirectly related to tourism activity;
- Enhancing and maintaining local employment, creating conditions of equal employment opportunities, and increasing local income;
- Increasing the added value of production through promoting entrepreneurship;
- Creating a structured, diversified, and innovative tourism product based on the utilization of local characteristics (environmental, cultural, social), on the quality of the services and goods provided, and on authenticity;
- Improving the quality of life of residents and visitors and increasing sustainability.

In line with the above goals is the recent initiative of developing the Thessaloniki City Card based on blockchain technology in the framework of #Thessaloniki_Tourism_Blockchain project (https://thesstourblock.imet.gr/en/, accessed on 14 April 2023).

3.2. Materials and Methods

As mentioned above, serving the goals of #Thessaloniki_Tourism_Blockchain initiative, a dedicated tourism survey was implemented in order to examine both the motivations and needs that drive a visitor to buy a smart tourist card, and to capture their interest in integrating digital cultural content during a trip to the Thessaloniki. Initially, after clarifying theories and definitions regarding the importance of studying motivation, the motivations and attraction factors of a smart tourist card and the digital material it can provide were mapped through international and domestic studies. The mapping carried out is of dual importance because, on the one hand, it became possible to redefine the digital tourist card, since as technologies are integrated a transformation occurs, and, on the other hand, it created a list of features and services that was used both in the first part of the research and in the second part of the research. In the second stage, an empirical qualitative study was carried out in order to produce useful information and conclusions on: the interest of tourists in purchasing a smart tourist card, the types of services and facilities that should be included in it, the provision of digital material, and finally its cost in relation to its validity period.
All of the above led to conclusions about the needs of potential users of such a tourism application and their motivation towards the tourism industry in general.

A qualitative tourism needs survey was conducted during 2022 in the form of a questionnaire addressed to domestic and international, potential and real visitors. The questionnaire was circulated in a digital format and was promoted through applications, as well as through social media (Facebook, Twitter, LinkedIn). Various types of statistical analysis were applied to process the data. Descriptive statistics were conducted to analyze the profile of the subjects. Frequency evaluation analysis was performed to provide a complete picture of the distribution of the data on the measurement scale. A statistical significance analysis was then conducted to compare the sample with the population and to examine whether the statistical sample was not statistically significantly different on a population parameter. Finally, a series of multiple linear regression analyses were implemented in order to test the correlations. Finally, a chi-square test was used to calculate the significance of the regression model.

The questionnaire was constructed according to the data of the literature review conducted during the first phase. Four main sections were created, including: personal data, the evaluation of proposals based on the degree of agreement on the characteristics of Thessaloniki, the features that a smart tourist card can contain, and the integration of digital material within the product. A total of 22 closed and open-ended questions were constructed, which were measured with different nominal, tactical, and interval scales in order to produce in-depth conclusions.

The first section aims to control demographic characteristics and visitor diversity by presenting the demographic data of respondents (age, gender, ethnicity, income scale) and information on the characteristics of their holidays.

In the second section, the questions are framed by the personal assessment that the potential visitor will make of the degree of agreement or importance. In the first question, the characteristics that Thessaloniki can provide for a visitor are placed on a Likert scale, and the second question of this section, which is again on a Likert scale, concerns characteristics that can be included in a smart tourist card. The respondent is thus able to indicate his/her personal level of agreement and what he/she considers important in a smart tourist card. Through these questions, results can be obtained on the preferences and requirements of visitors.

In the next section, smart tourist card packages are presented, which are priced according to their benefits. The respondent, after studying them, should be able to answer which card he/she would prefer from the two and how he/she would rate them through a ‘Star Rating’ system. Various benefits are then given over a 48 h period, during which the potential visitor should choose what he or she would like to do. Through this module it is possible, using the frequency rating model, to carry out an analysis on visitors’ preferences regarding the ready-made tourist card packages.

Finally, the fourth section of the questionnaire gives weight to the digital city tools. The questionnaire in this section is structured through both multiple choice and single-choice questions about the digital promotion of a city through the smart tourist card. The answers will enhance the conduct of in-depth results on whether a visitor has a need to use a digital tool of a city, as well as what kind of digitization he/she would like.

The last phase of the empirical study is the interpretation and evaluation of the results:

- Evaluation based on frequency: frequency distributions are one of the best-known methods for presenting a data set. Frequency distributions can be structured either as tables or as graphs. In both cases, the aim is to give a complete picture of the distribution of the data on the measurement scale. Depending on the category of data (quantitative or qualitative), different forms of these distributions (histograms or bar charts, respectively) are used. In this paper, through the frequencies, both the demographic characteristics of the sample and the frequency rate of each requirement selected will be presented.
• Statistical significance analysis: with One Sample T-Test, this enables the researcher to compare the sample with the population and test whether the statistical sample is not statistically significantly different on a population parameter. A significance test is a standard procedure for comparing observed data, with a claim (also called a hypothesis), the truth of which is evaluated. The claim is a statement about a parameter, such as the population proportion \( p \) or the population mean \( m \). The results of a significance test are expressed as a probability, which measures how well the data and the assertion agree.

The exploratory literature review was applied in order to answer the question ‘which are the clear needs of visitors for the purchase/use of a smart tourist card?’ This phase aims to identify the main explicit and latent needs of tourists related to the use of smart tourist cards, as well as the ideal characteristics of the new service. In the second phase of this study, the aim was to answer the following question ‘how should the new service be designed in order to satisfy visitors and improve their travel experience?’ For this purpose an integrated approach was applied, combining frequency assessment and statistical significance analysis. Both the former and the latter approach aided in better understanding the features and services that would be included in a potential smart tourist card application. The importance of applying these methodological analyses demonstrates the very essence of this study and its enhancement in the general scientific field, as it presents the prioritization made by potential users of the services of such an application.

4. Results

A total of 161 questionnaires were received (survey following a snowball sampling exploring social networks’ power due to the hard-to-reach population of tourists), which formed the basis of the data analysis reported in this paper. The project partnership, within which the current survey was conducted, distributed the questionnaire to individuals in their social media network who had previously visited the city. Two research and academic partners, namely the Centre for Research and Technology Hellas/Hellenic Institute of Transport and Hellenic International University, leveraged contacts from previous projects that involved visits to Thessaloniki. Additionally, the Thessaloniki Tourism Organization, a supporter of the DigitalThessaloniki2030 project, shared the survey with tourists from their own datasets. The initial recipients of the survey were encouraged to forward it to others who had visited the city or to actively seek out such groups among their contacts. Prior to the survey, respondents were informed about the purpose of the survey, the survey method, procedure, and anonymity regarding data analysis.

Leveraging social networks rapidly expanded the sample size, a need that was imposed by existing time and cost restrictions. The inherent limitation of not randomly selecting respondents (digital word of mouth communication exploited to diffuse the survey among connections between tourists that have visited the city), which can limit the generalizability of the findings, has to be considered.

4.1. Frequency Evaluation

After the data coding, a frequency assessment was performed on the demographic results to determine the sample collected from the questionnaire. Therefore, starting the analysis with the characteristics of the respondents, the total sample was reduced to 161 participants, having 49.7% female, 47.8% male, and 1.9% participants who did not wish to indicate their gender. Of the total respondents, most of the respondents held at least a postgraduate degree, at 68.3%, while the next in line, at 16.8%, held a doctoral degree.

It is worth noting the income scale where most respondents were identified: the majority, 35.4%, were placed in the 10,000–20,000 range, while 19.9% were placed in the 20,000–30,000 range.

In this current, quick survey, the focus was on collecting and analyzing qualitative data, which involve subjective information, opinions, beliefs, and the experiences of tourists, data that are not measured on a continuous numerical scale, therefore, do not have the
same assumptions as quantitative data, such as normality. As presented below, the analysis focused on understanding the meaning and context of the data rather than assessing statistical assumptions.

Respondents were given four prefixed packages of services for a destination card for the city and were asked to select the best for their needs (Figure 1).

![Figure 1. Proposed touristic packages for Thessaloniki destination card [authors’ elaboration].](image)

Regarding which card respondents would choose most often out of the sample given to them, the single tourist cards B and C proved to be the most popular (Figure 1). The respondents showed their preference with 37.3 and 29.8 percent, respectively. Concerning the tourist card D, it is worth noting the small percentage it gathered (8.1). Through this analysis, a preliminary picture is constructed about the preferences of potential visitors in relation to what a destination card should contain.

The record of income categorization is of great interest in relation to the selection of single tourist cards given above. It appears that the category of people belonging to the income range 10,000–20,000 chose, in the majority, the single tourist card B with a percentage of 11.25% (18 people), while potential users belonging to the category of 20,000–30,000 showed their preference for the single tourist card C. As we move up the income scale, the percentage opting for the Single Tourist Card C increases compared to the lower income categories.

It is obvious, however, that the two middle income categorizations that capture the largest percentage of our sample would choose the B or C.

Moreover, it is interesting that of the three possible market value card cost prices, most chose those with 35 euros across all salary scale categories. It is obvious that the people participating in this survey believe that a smart tourist card should cost less than 50 euros, regardless of the services that may be included, and range from 35–40. This is a useful conclusion for the host countries, which will be able to know the market value of this product in the first place. The price of a tourist card is of paramount importance and has a multi-faceted impact because the services included will be proportional to the final cost of a destination card. In addition, a destination card is intended to be accessible to all levels of society, so the desired cost of a destination card will lead both existing and new cards to optimize supply and demand.

In addition, regarding the digital services to be integrated into a smart destination card, users were asked about the costs they would expect to pay for virtual/visual audio/visual walking or cycling tour services in the city, for 60 min virtual/visual audio/visual tours of key tourist attractions and for live broadcast services of concerts and theatre performances.

Using the frequency analysis evaluation model, the following results were obtained: 80.1% consider it necessary to offer digital material for concerts and events in cities within a smart destination card. The presentation of general information about the city can enhance the visitor’s desire to visit a destination and, at the same time, can enhance the desire to
consume more services than without it. Indeed, as stated by one paper [74], showing the daily happenings of a destination through digital material gives the visitor a more authentic image of the destination. It is also considered very important to have a communication channel between tourists to share experiences (78.8%).

The above result correlates with the third wish expressed by respondents regarding digital material. Thus, 64.9% chose the service ‘material with virtual/visual/audio tour on foot or by bicycle in the city’, a requirement that highlights the visitor’s desire to get to know the destination quickly and easily. Services related to virtual guided tours of museums (50.3%) and service proposals related to the profile of the visitor in question are also quite high (47%). Therefore, a smart destination card manufacturer should limit itself in the beginning to digital material about the city’s events, and to virtual/visual/audiovisual tours.

4.2. Statistical Significance Analysis

Following the frequency analysis of the main characteristics of the respondents, the results of the significance analysis of the characteristics of a single destination card are presented. The data were analyzed with One Sample T-Test, which enables the study to determine the mean value of each variable whose responses are placed on a Likert scale. The mean value will determine the importance of each response, thus making it possible to distinguish which of the features offered are the ones considered of highest importance by the visitors, which are the ones ranging in the unimportant features, and finally which are the features that are unimportant.

The significance table (Table 2) shows that ‘entrance to a museum’, ranks first in importance with a mean value of 4.506, and therefore it is feasible to carry out the hypothesis that ‘providing free entrance to a museum within a smart destination card is considered a basic need for visitors to make such a purchase’. The next most important need presented is ‘unlimited access to public transport’ with a mean value of 4.250, while the third most important need captured is ‘entrance to a second museum’, with a mean value of 4.144. Finally, ‘participation in a free guided tour of the city on foot or by city bus’ ranks as the last need of highest importance, with an average value of 4.069. All of the variables presented, captured with a mean value of four and above, can be considered as the most important requirements of visitors for a smart destination card because their responses on the Likert scale range between four and five. The attributes ‘discounts in restaurants’ and ‘ticket for urban water transport (city center–adjacent beaches) are on the neutral Likert scale, and as a result are placed in the neutral category. The variance of the last two variables, however, is between 3.79–4.08 and 3.71–4.01, and therefore has an upward trend towards a value of four. As a result, not only do they not negatively influence the visitor’s choice if they are included in a destination card but, in some cases, they may positively push the visitor towards such a purchase.

Table 2. Smart tourism card features and guest needs.

<table>
<thead>
<tr>
<th>Feature</th>
<th>t</th>
<th>DF</th>
<th>Sig. (2-tailed)</th>
<th>Meaning Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrance to One Museum</td>
<td>83.556</td>
<td>159</td>
<td>0.000</td>
<td>4.506</td>
</tr>
<tr>
<td>Unrestricted Access to Public Transport</td>
<td>52.933</td>
<td>159</td>
<td>0.000</td>
<td>−4.250</td>
</tr>
<tr>
<td>Entrance to a Second Museum</td>
<td>60.411</td>
<td>159</td>
<td>0.000</td>
<td>4.144</td>
</tr>
<tr>
<td>Participation in a Walking Tour of the City or by Tourist Bus (hop-on hop-off)</td>
<td>56.011</td>
<td>159</td>
<td>0.000</td>
<td>4.069</td>
</tr>
<tr>
<td>Restaurant Discounts</td>
<td>52.819</td>
<td>159</td>
<td>0.000</td>
<td>3.938</td>
</tr>
<tr>
<td>Ticket for Urban Sea Transport (city center–adjacent beaches)</td>
<td>50.139</td>
<td>159</td>
<td>0.000</td>
<td>3.863</td>
</tr>
</tbody>
</table>

Table 3 shows an analysis of the importance of the characteristics of Thessaloniki as an urban tourist destination. Respondents were asked, on a Likert scale of 1–5, with an absolute agreement of five, to indicate their agreement with the characteristics that represent
Thessaloniki. In particular, the first preference of the respondents, with an average value of 4.438, is presented by the option ‘Thessaloniki is a student-friendly city’. The second characteristic of Thessaloniki, on which there is complete agreement, is ‘Thessaloniki has an excellent history about which I would like to know details’, with an average value of 4.425. Therefore, there is an interest in the history of the city, and this can be interpreted to mean that the person who sees Thessaloniki as a city with an excellent history is probably interested, as a visitor, in knowing the history of a destination. Therefore, it might be reasonable to include ‘entrance to a museum’, ‘entrance to a second museum’, ‘historical cultural route packages’, and even digital material of historical routes within the city in a smart destination card.

Table 3. Tourist characteristics of Thessaloniki and degree of agreement of visitors.

<table>
<thead>
<tr>
<th>T-Test/Evaluate the Following Suggestions, Capturing the Emotion That Influences You</th>
<th>t</th>
<th>DF</th>
<th>Sig. (2-tailed)</th>
<th>Meaning Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thessaloniki is a student-friendly city.</td>
<td>77.514</td>
<td>159</td>
<td>0.000</td>
<td>4.438</td>
</tr>
<tr>
<td>Thessaloniki has an excellent history for which I would like to know details.</td>
<td>95.082</td>
<td>159</td>
<td>0.000</td>
<td>4.425</td>
</tr>
<tr>
<td>Thessaloniki has a rich history in gastronomy and is famous for its flavors.</td>
<td>81.389</td>
<td>159</td>
<td>0.000</td>
<td>4.413</td>
</tr>
<tr>
<td>Thessaloniki offers intense nightlife.</td>
<td>75.524</td>
<td>159</td>
<td>0.000</td>
<td>4.406</td>
</tr>
<tr>
<td>Thessaloniki has Byzantine sites that I am interested to visit.</td>
<td>76.282</td>
<td>159</td>
<td>0.000</td>
<td>4.275</td>
</tr>
<tr>
<td>Thessaloniki has hospitable people.</td>
<td>65.337</td>
<td>159</td>
<td>0.000</td>
<td>4.031</td>
</tr>
<tr>
<td>Thessaloniki is close to beautiful summer destinations that I would like to combine in my trip.</td>
<td>48.683</td>
<td>159</td>
<td>0.000</td>
<td>4.025</td>
</tr>
<tr>
<td>The Thessaloniki market is interesting and attractive.</td>
<td>57.961</td>
<td>159</td>
<td>0.000</td>
<td>3.863</td>
</tr>
<tr>
<td>Thessaloniki has important events and artistic events that I am interested in.</td>
<td>48.250</td>
<td>159</td>
<td>0.000</td>
<td>3.700</td>
</tr>
<tr>
<td>Thessaloniki is close to the winter destinations that I would like to combine in my trip.</td>
<td>43.476</td>
<td>159</td>
<td>0.000</td>
<td>3.644</td>
</tr>
<tr>
<td>Thessaloniki is ideal for travelling with children.</td>
<td>43.731</td>
<td>159</td>
<td>0.000</td>
<td>3.600</td>
</tr>
<tr>
<td>Thessaloniki offers interesting sports events.</td>
<td>38.104</td>
<td>159</td>
<td>0.000</td>
<td>2.963</td>
</tr>
</tbody>
</table>

The next interesting result produced through this important analysis is that visitors described Thessaloniki as a city with an excellent history in gastronomy, showing an average value of 4.413. Therefore, food offers, gastronomic itineraries, and, more generally, information regarding places of interest with food will optimize a smart destination card, as this sample turned out to be very important, with a mean value variation of 4.31–4.52. In terms of entertainment, the next characteristic they added to Thessaloniki as a tourist destination is that it has a lively nightlife.

Regarding the historical features of the city, many people wish to visit the Byzantine monuments of Thessaloniki during their trip, with an average value of 4.275. This result, combined with the above, gives very important information about how many and what kind of monuments are the ones that will optimize a smart destination card. Finally, the characteristic that seems to give an edge to the destination is its geographical location. Most respondents agreed that Thessaloniki has nearby coastal destinations that they would like to visit during their stay in the city. Therefore, it would be important that a destination card should give the possibility to travel to nearby coastal destinations.

The other characteristics of the city ranged in a mean value variation of 3.44 to 3.99, putting them at the neutrality level. Therefore, through such an analysis it is possible to create a product based on the importance given by the visitors and, therefore, meet a wide range of tourism needs. Moreover, through the difference in average price, it is possible to identify both the characteristics that are of the highest importance, which if missing may cause negative feelings in the consumer about the product, and those of particularly low importance, which if present may again cause negative feelings about the product. Finally, ‘neutral’ characteristics are defined but, depending on their variation, they may give rise to either positive or negative thoughts about the product.
5. Discussion

5.1. Theoretical Implications

Simple tourist cards and smart tourist cards have proven to be effective marketing tools in global tourist destinations, benefiting both potential visitors and the destinations themselves. The smart tourist card offers various advantages, including time and cost savings, while creating incentives for visitors in the host destination [74]. By combining multiple tourism tools and services, smart tourist cards contribute to an optimized tourism experience, improving the destination’s image and competitive advantage [84].

The introduction of smart tourist card systems addresses the evolving tourism industry and the saturation of urban tourism markets [68]. The development of information and communication technology, particularly the internet, has led to a new generation of tourists who are more experienced, sophisticated, and demanding [85]. The structure and versatility of smart tourist cards, providing continuous information about points of interest, secure contactless payments, and immediate problem-solving capabilities, play a crucial role [68].

Understanding the motivations and needs of this new breed of visitors is vital for creating innovative products like smart tourist cards. Empirical research on these cards enhances our understanding of modern tourist needs and provides valuable insights for manufacturers [74]. Respondents express a preference for audiovisual material, virtual tours, and the ability to interact with other visitors and locals through smart tourist cards, contributing to a holistic view of the destination [74]. Features such as free museum entry and unlimited public transport optimize the travel experience, while thematic tours, available through different means of transportation, appeal to visitors [86].

By integrating digital tools and benefits, a smart tourist card becomes highly optimized and attractive to the tourist market. Distinguishing between attraction and push incentives allows for better segmentation of needs and a more in-depth exploration of results [87]. The construction of tourist packages and combined benefits, like those offered by smart tourist cards, can leverage the preferences of visitors who enjoy exploring the city and engaging in entertainment and dining experiences. Additionally, the analysis reveals that visitors who express a desire to visit one museum are likely to have a strong inclination to visit a second museum, providing valuable information for constructing attractive tourist packages [87].

The ongoing digital transformation motivates collaborative and integrated destinations, enabling faster and more efficient methods of living, working, and networking through integrated platforms that connect various stakeholders and entities [88, 89].

5.2. Practical Implications

Key conclusions from the statistical analysis conducted for Thessaloniki are:

- Visitors interested in purchasing a smart tourist card for Thessaloniki prefer independent travel and often travel with their families, highlighting the need for family-oriented services and inclusive sustainable mobility options.
- The average acceptable price for a 48 h destination card in Thessaloniki is 30 euros. Preferred services include museum admission and sustainable transportation, indicating the tourists’ interest in sustainable mobility.
- Thessaloniki’s outstanding historical significance is widely recognized and attracts visitors. Therefore, a smart tourist card could include features such as museum entry, historical cultural route packages, and digital material showcasing historical routes. Guided walking tours promoting sustainability could also be appealing.
- Thessaloniki is praised for its exceptional gastronomy and vibrant nightlife. Including food offers, gastronomic itineraries, and information on food-related points of interest in the smart tourist card would optimize its value. Gastronomy tours that emphasize sustainability can cater to both tourists and the destination’s needs.
- Many visitors express interest in exploring Thessaloniki’s Byzantine monuments. This information is valuable for determining the monuments to be included in the smart tourist card. Additionally, Thessaloniki’s advantageous geographical location near
coastal destinations is an attractive feature, suggesting that the card should offer the option to visit nearby coastal areas.

- A smart tourist card should also provide services that contribute to visitor relaxation and rest. This can be facilitated through a user-friendly application that saves time by providing information on points of interest in Thessaloniki. Incorporating sustainable mobility trip planners in the card would be beneficial.
- Furthermore, regarding the digital services that should be integrated in a smart tourist card, 80.1% consider that it is necessary to offer digital material from concerts and events in the cities within a smart tourist card. The presentation of general information about the city can enhance the visitor’s desire to visit a destination and, at the same time, can enhance their desire to consume more services than without it. It is also considered very important to have a communication channel between tourists to exchange experiences (78.8%). In addition, 64.9% therefore chose the service ‘material with virtual/visual/audio-visual guided walking or cycling tour of the city’, a requirement that promotes the visitor’s desire to quickly and easily get to know the destination in question. Services related to virtual guided tours of museums (50.3%) and service proposals related to the profile of the visitor in question are also quite high (47%).

6. Conclusions

As the global community becomes more conscious of the environmental impact of tourism, there is a growing trend towards promoting sustainable practices in the industry. One way in which this is being implemented is through the use of destination cards aligned with sustainability goals.

Destination cards can serve as a guide for travelers seeking destinations that prioritize eco-friendly initiatives, from reducing carbon emissions to preserving local cultures and wildlife. By providing clear and concise information on the sustainable practices of a destination, these cards allow travelers to make informed choices that align with their values. Moreover, the adoption of such cards can also drive positive change in the tourism industry by encouraging destinations to improve their sustainability practices in order to attract environmentally conscious travelers. This creates a win-win situation for both travelers and destinations, with the former being able to enjoy responsible and sustainable travel experiences, while the latter can benefit from increased revenue and positive social and environmental impacts.

Coming to the Thessaloniki case, the proposed destination card will be aligned with city’s sustainability goals, representing a promising step towards a more responsible and sustainable tourism industry, and their adoption should be encouraged by travelers and industry stakeholders alike. Research limitations have to do with the sample size and sample representativeness due to the time constraints that are linked with the sampling method used. Extended surveys, given ample time and resource availability, of different tourists’ characteristics (cultural differences, geographic location, different specific characteristics and needs) should take place for inclusive touristic packages provisions.

The next step of this ambitious, innovative initiative for the city is to find the golden ratio between tourists’ needs and the city’s goals and capacities. The formulation of a participatory governance framework (being led by an umbrella body acting as a mentor to the tourism ecosystem and presenting the interlinkages among the actors and activities) will be the subsequent phase. Although the proposed approach has transferability potential, the survey design should be based on local characteristics and branding strengths in order to extract tourists’ needs while being aligned with a sustainability vision. An integrated approach and strong engagement in tourism planning is proposed for all destinations, while regular updates on tourism needs should be scheduled.

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