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Development of Island tourism resources based on distributed database and embedded system

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ABSTRACT

This article describes the sustainable production system made islands. Distributed data resources used to produce goods for consumption and disposal. Production activities are supported by global non-critical resources, such as capital, technology and expertise in embedded systems, patents and data: analysis and business plan. Provide a case study to explain this arrangement. Understand the potential of the Island's manufacturing sector to add value to the debate on sustainable manufacturing. This study aims to develop an embedded system as a model recognized as a highly developed modern development model, and tourism destination as a system bound essentially regional representatives with a specific development framework. Find similarities with the indispensable support of the overall product at your destination for a distributed database server. By this analogy, find a long-term development model suitable for local commercial embedded systems tourist destinations. A reasonable solution is the concept of sustainable development; the basic principle is coherent. Tourism destination management principles function.

1. Introduction

The regional and global sustainability issues into corporate decision-making are the current focus. Due to the various structures, regional sustainability issues have been overwhelmed by the global economic and environmental problems. The sustainability of the current debate is mainly on a global scale. The company's global profitability go hand in hand, making it more competitive; even under the umbrella of sustainable development, issues of local concern may also be varied. Companies need to understand this complex argument. Make a decision. Local concerns need to be integrated into global business operations. There is room for sustainable manufacturing contract, which involves various actors; they can respond to local concerns and build local enthusiasm for solutions.

Arrangements are described in this article by global manufacturing management, manufacturing, and sustainable local production and consumption localization in the local scope. In this proposed arrangement, known as the Island of manufacturing, a non-critical resource, one of the two processes is managed by the same focus farm. This study analyzes the case that explicitly addresses local sustainability issues of global companies involved. From these examples, abstracted the basic fundamental arrangements and explained their potential.

Traditionally, this argument from the outset to be included in local communities and regions can be particularly proven in tourism development. The tourism-oriented local communities are often called "tourists," but there are other names. (Carried out in the following discussion) No matter what term is used, they also represent production, family, political and social life entity, although less important, but essential. It refers to a region. / Integrated tourism products. Therefore, as established in a particular area of the tourist destinations of the competitiveness of the economy and the natural values and economic activities and some tourism products, cultural and social quality of the regions coordinated. It also depends on the value system.

Alfred Marshall economic theory described and analyzed to assess the development of modern practice and theoretical models of industrial zones identified, as well as a model tourist destination tourism special place systems based on the principles of these models work: geographic decision-making, industry specialization, the general share of SMEs, innovation-based competition, to introduce social and cultural identity in the system, keeping it separate from other similar systems area. Ongoing formal and informal study and active participation in the information exchange process, local government and local governments, especially positive self-help organizations trust between local actors.

According to the above description, the purpose can be summarized

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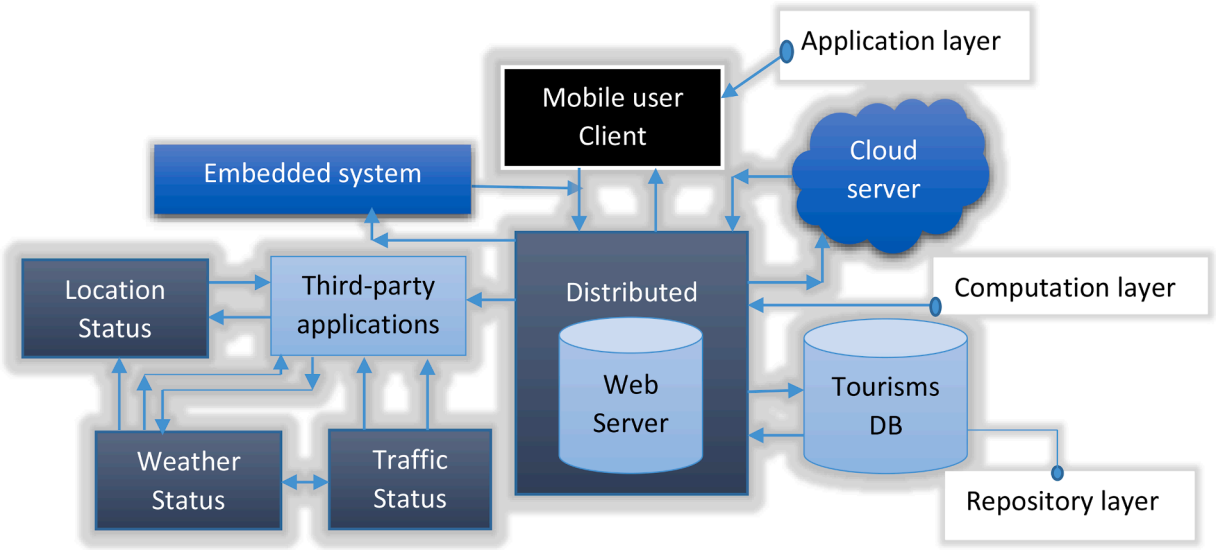

Fig. 1. Architecture of the tourist recommendation system.

herein. This paper aims to analyze the basic principles of the industrial / enterprise zone model and find out whether these principles apply to the model. The region as a tourist destination built system. One of the items dilemma between principle and basic assumptions tourist destination model based on sustainable development is also discussed. Sustainability principles are permanent transfer hypothesis proves as a built-in system to local tourist destinations.

This search has led to different types of models. Some models are based on a collection of interconnected small and medium enterprises, which are small and medium enterprises to serve niche markets and have the flexibility to adapt to new market conditions. Another type of large-scale model is based on location decisions. Under certain conditions of external production companies have in common is that all of these models not only new products, including technological and organizational innovations, such as a network based on a program and organization of the implementation process. It's the truth. And the links between direct and indirect production of all participants and the local environment.

2. Related works

All developed countries have documented the collapse or stagnation in the large industrial centers and regions; these areas are at the core of large enterprises based on traditional economic development [1]. The main reason for the collapse is not able to adapt to the new situation. Economic recession led to the collapse of many large companies, factories and the shrinking outsourcing of some production processes. Electronic devices' intensive development enables small and medium businesses to use the latest technology; even small businesses can restructure its economy [2]. For some time, the company has been a leading advocate for the promotion of employment growth.

In the past decade, "small is beautiful" has become the slogan of the 20th century, industrial and regional policy [3]. Rural and surrounding areas occur spontaneously through growth and development, and economic policy, but the former industrial center and difficulties the company faces in the clashes. Surprisingly, the collapse of the previous reversal of the paradigm of traditional methods and began the exploration of new concepts and models of industrial and regional policy and the overall development policy [4]. Not surprisingly, many areas will be sustainable tourism development as a regional development strategy. ..

Each focused on small companies throughout one or more stages of the production process [5,6]. Such a small and flexible company often collaborates with exchange tools and machines. Information and skills, and even the professionals can make each other perform the contract cannot be achieved alone. In the industrial sector, the enterprise-wide economy is a local system [7,8]. The local community encourages cooperation in industrial districts by its set of supportive social values [9]. An important element of functioning in such a community is mutual trust, which is transferred to business relationships. Trust makes dynamics possible through the reduction of risk and transaction costs [10].

Trust action taken does not mean ignoring their interests, but there is a broader understanding of their interests, not only for the benefit of others but also for the future. Means [11]. Confidence-building does not happen overnight, but it will have a positive impact. A variety of "catalysts" organizations, such as kinship, race, religion or political affiliation, formal or informal groups, and collaborative arrangements. Trust is a future-oriented concept, but it is based on what happened in the past.

Marshall Time to clarify this concept to the rapid growth of manufacturing and production of a feature. It is a measure of the growth of the basic indicators of overall economic development. In today's case, the situation has changed greatly. Most countries have completed or passed. Post-industrial society transition [12]. As interest in more advanced agricultural development increasingly strong, it has shifted to focus on developing the third quarter and activities. This requires the concept of industrial zones to adapt to current conditions. Adhere to concepts and models used in the absence of scientific freedom and creativity will hinder scientific theory development and prevent the successful application of the model previously defined [13].

In this case, using the "entrepreneurs" acronym "industry" is useful because the current situation emphasized that entrepreneurship is not just an activity. Thus, in the rest of the book, the concept of "industrial zone" is replaced by the concept of "enterprise zones" the "industrial area" will be identified as a specific entity, a common code of conduct or a common economic and social and cultural norms. It represents a region with traditional and other features [14].

As for start-derived region having a broader meaning than industrial area) it represents a form of spatial concentration, but simply a physical characteristic of the region is not a decisive role in the decision-making. That, along with the development of modern technology, the relative's idea, the substance of the analysis region to analyze the social pattern of entrepreneurship's geographical area is based [15]. According to the standard, the need to achieve a relatively self-sufficient in the region, namely to achieve optimal interaction between its components (functional boundaries, without doubt, the economic and social openness to the environment). The definition of residential and industrial land.

In practice, this means using the available resources in your area to

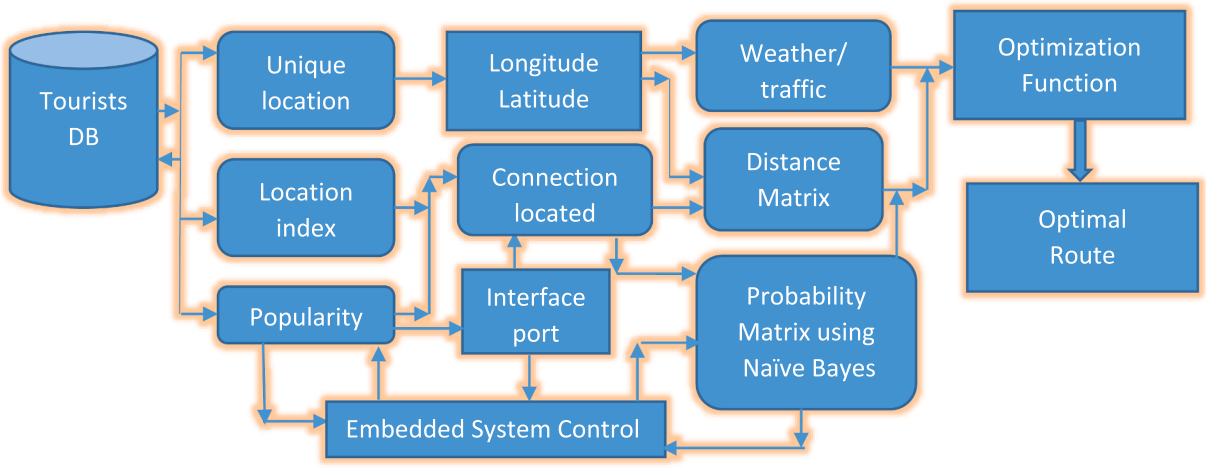

Fig. 2. System flow diagram of the proposed recommendation system.

carry out various economic activities. Could argue that there is between these models, at least in spatial differences, but in the discussion of local embedded systems [16], which are essentially the same. This may be supported by the definition of different authors created. Offer a unique tourism product by the institutions and active private sector component. Many authors have defined goals that it is an open software system. In other words, the area is an area of continuous feedback between several elements or subsystems, and there is the interaction between the open destinations [17]: the system and its political, economic, ecological and cultural environment. According to systems theory, each element or subsystems are dependent on other elements and evolving in interaction with the entire environment. As a result, there is no synergy between the bodies between the destinations [18]. They are generally not like the system, or as previously defined, does not act as the local production system/enterprise zones.

The findings show that there are many differences in crowding and tourist satisfaction with various international groups of tourists[19]. For example, satisfied with this visit, but know the best traffic congestion [20]. Registered the lowest level of a crowded place, once they are not satisfied with the number of groups in caves, have to wait for other groups. 71% of summer tourists cause traffic jams in some form; the winter is 40% [21].

3. Proposed methodology

Characterize Fig. 1 speaks to the proposed engineering of the framework. In this figure, there are three layers, as follows:

3.1. Repository layer

Repository layer, application administration layer. The database layer comprises information from guests to the structure of the information from the Wi-Fi switch. The information incorporates courses of sightseers visit the area. It comprises of longitude and scope of the area. One sort of gathering API is used to sidestep the name (line) of the spot to discover the area's scope and longitude. Likewise, utilize outsider API to compute the separation between areas. The informational index is reasonable for vacationers to visit the Island's top attractions.

3.2. Application layer

In the application service layer, visitors enter user preferences. User preferences based on location, age and gender costs. Free to visit several places, such as beaches and cultural heritage. In the admission and suggest the best tour route (for example, "Han made Water Planet") before, consider tourists' preferences. Age should be considered because children like the theme park, while adults prefer seaside scenery and ancient history tours.

3.3. Computation layer

The computation layer includes all information preparing the cloud. Thus, distributed computing. Ascertaining a pre-layer of the information. Pretreatment includes the real way of parting and separating information from an interesting position. Separated from the informational collection of 149 unique positions. An extraordinary number doled out to every area. Determined the prevalence of the area dependent on the complete number of the informational collection. Determined utilizing an outsider API as show you in Fig. 2.

Use Pandas library is converted to a position adjacent to the connection matrix, representing a user's value from the access position to another position. A value of 0 from the location to the destination is no tourists to visit. The calculated probability matrix data set. Use the plain Bay model to determine the likelihood of visitors to the next location.

When selecting a distance, it will recommend the best route depending on weather and traffic conditions. This because recommends an alternative route can cover more distance for the convenience of tourists. Each parameter has a corresponding weight. Recommend the best route to tourists according to the objective function. The best route may vary between users: preferences, weather, traffic conditions.

3.4. Naive bayes algorithm

From Bayes' hypothesis is given a P (c), P (x) and P (x | c) after figuring the back likelihood P (c | x) strategy. Credulous Bayes classifier influenced by a worth. A specific class (c) is the forecast variable (x) autonomous of different indicators' estimations. The freedom supposition that is called class. Bayesian style

$$P(c|x) = \frac{p(c|c) * p(c)}{p(x)} \quad (1)$$

In the current examination, P (c | x) is the likelihood of moving to start with one position then onto the next position, P (c) is the fame of the current position, P (x) is the following situation of ubiquity. Utilize this condition to locate the following best position and the cycle until you arrive at the ideal area. The utilization of a problematic area suggests the best course for travelers dependent on prevalence.

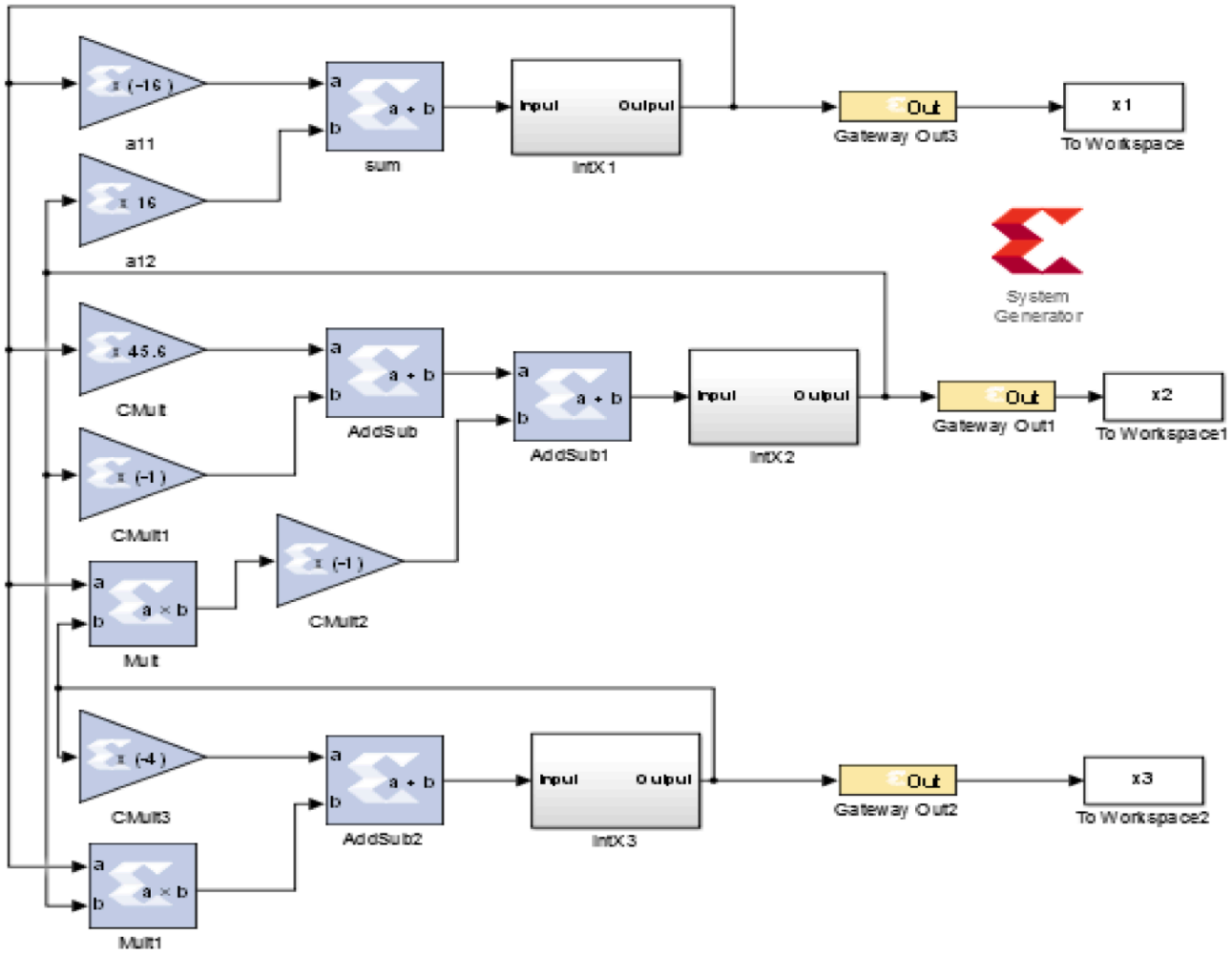

Fig. 3. Tourism resources based on embedded system circuit.

3.5. *Optimization objective function*

The motivation behind the improvement is to discover a course, which can cover short separations and a famous spot for a brief timeframe. A few factors may influence suggest the best course, for example, climate conditions and traffic conditions. In the proposed framework, utilize an outsider API to discover traveler objective, climate and traffic conditions. As per the client's inclinations, the proposed framework, as indicated by the current climate and traffic conditions, suggested elective courses.

Optimization seeks to maximize the popularity index by minimizing distance and time. In the formula, the position of the object is to maximize visibility.

$$\mathrm{Pi} = \max(\mathrm{Pi}), \tag{2}$$

$$\mathrm{C_i} = \min(\mathrm{d}, \mathrm{t}) \tag{3}$$

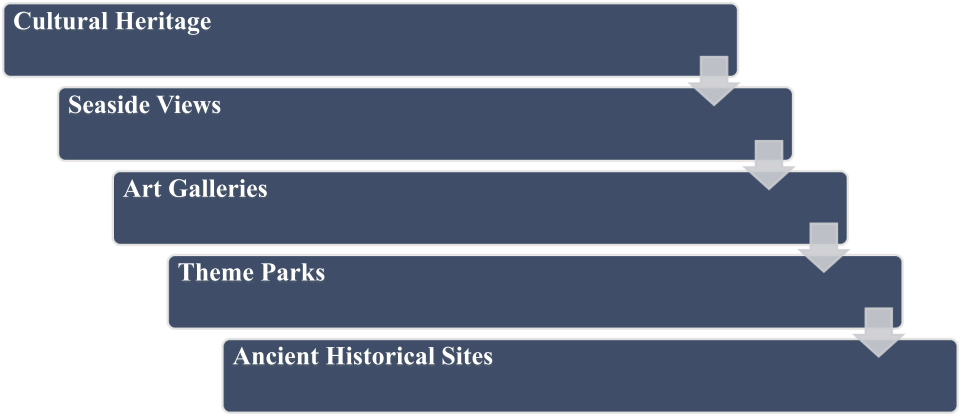

Fig. 4. Tourism resources in Island.

Table 1
Popular tourist attractions on Island.

Category	Popular Tourists
Cultural Heritage	Jonjaam Site, Sejonsari Pagoda, Seated
Ancient Historical Sites	Seongeup Folk Village
Art Galleries	Jeju Museum of Contemporary Art
Restaurants	Magpie Jeju, Heukdonga Jeju
Seaside Views	Hamdeok Beach, Hyeopjaey Beach
Theme Parks	Shinhwa Theme Park, Ecoland Theme Park

Based on Eqs. (1) and (2), the optimization objective function is given by

$$Opt = \sum_{n=1}^{l} \frac{p_i}{d+t} - (X_w + Y_t) \tag{4}$$

Directly in condition (4), X_w is given to serious climate conditions, Y_t is correct given substantial gridlock. If it is coming down, the estimation of X is 1; on the off chance that it is bright, X's estimation is 0. For maximum hours, Y 1 is, for typical traffic, Y is 0. On the off chance that the enhancement work is positive, at that point, what it is reasonable for vacationer's courses. If the target work esteem is negative, do not think this is the best course for travelers. A most extreme estimation of the goal work, since it shows the best course for explorers as show you in Fig. 3.

4. Result and discussion

The guest list contains two tourism resources: the travel industry attractions and framework or backing administrations. Attractions incorporate characteristic geographic highlights, for example, waterways, timberlands and lakes. Attractions may likewise incorporate uncommon occasions, for example, games and occasional celebrations. Recreational offices like riverboat betting, climbing trails likewise the wellspring of numerous attractions. Vacationers Support administrations incorporate a gourmet eatery, lodging facilities and transportation. Considering the two kinds of travel industry assets, notable traveler objective is partitioned into six classes: social legacy and antiquated. Historic sites, art galleries, restaurants, theme parks and seaside scenery, shown in Fig. 4.

The charming spot is a traveler objective for guests, generally because of their special or showed regular or social worth, chronicled criticalness, normal or made by the United States to give recreation and diversion. Customary social attractions. The common magnificence of the area, including mountains, deserts, seashores and woods. Social attractions incorporate sanctuaries, galleries and landmarks and other authentic locales as show you in Table 1.

The presentation of innovations in the travel industry is positive. Correspondences, information base, organization, information preparing and the most recent advancements in e-showcasing have opened up numerous new open doors for the travel industry; these open doors for development in the travel industry had a binding effect. Fig.5 shows the properties according to the percentage of tourists visit the above categories. They defined six major categories of sites: Cultural heritage, ancient monuments, art galleries, restaurants, theme parks and seaside scenery: property, namely age and gender. According to the data for two years (2016–2017), the percentage of tourists visit the location is shown in Table 2.

This segment portrays the presentation, and the current outcomes recommend that the proposed framework. Fig.5 shows the number of reactions every second. The ideal course suggestion framework reaction is quick and to test the framework by sending a solicitation to the worker hundreds. See, the most extreme number of reactions every second is 199, the base number of reactions every second is 105 as show you in Table 3.

Fig. 6 shows the level of the above classes of vacationers visiting the place. Fig. 6 shows the factual information from 2016 to 2017 vacationers visit Island. As can be seen from the figure, the most well-known class is the shoreline scene. 22% of guests to the shoreline view. In the

Table 2
calculated the percentage of tourists visit the location level.

Gender		Age				
Male	Female	less than 15	15–30	31–50	50–60	60+
cultural heritage	cultural heritage	30	45	88	87	89
seaside view	seaside view	34	49	55	85	89
ancient historical site	ancient historical site	45	55	74	65	68
art galleries	art galleries	60	65	89	98	98

Table 3
Tourists statistics (2018–2019).

Gender		Age				
Male	Female	less than 15	15–30	31–50	50–60	60+
cultural heritage	cultural heritage	30	45	88	87	89
seaside view	seaside view	34	49	55	85	89
ancient historical site	ancient historical site	45	55	74	65	68
art galleries	art galleries	60	65	89	98	98

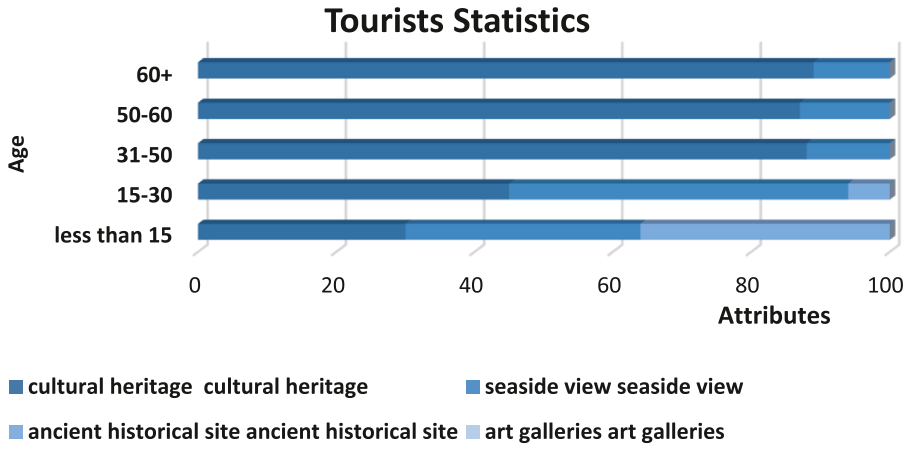

Fig. 5. Percentage of tourists' attributes.

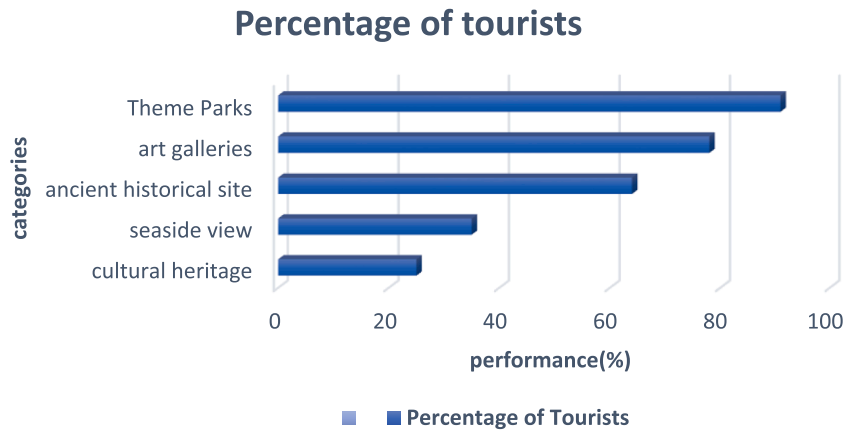

Fig. 6. Percentage of tourists based on categories.

Table 4
Percentage of tourists based on categories.

Categories	Percentage of Tourists
cultural heritage	25
seaside view	35
ancient historical site	64
art galleries	78
Theme Parks	91

interim, 19% of sightseers visiting the amusement parks, 16% of eatery guests, 17% of travelers visiting the antiquated recorded destinations, 14% of vacationers visit craftsmanship displays and 13 visitors.% visited the social legacy. Define the Table 4 performance for the percentage of tourists based on categories.

5. Conclusion

In conclusion, this study found that the social carrying capacity survey Glowworm Caves of the need to introduce a problem, that is, who should determine the appropriate level of congestion and apply it to what groups of tourists. Recommendations. Also, if there is no clear value management that can be used, the carrying capacity will not play a role in perception. Therefore, this study shows the potential and real conflict when market-driven policy management and strong marketing sensitivity to conflict with local culture and heritage visitors face. Consistent embedded as a specific local economy, quality and competitiveness in harmony with the natural values and part of the tourism product and economic activities, social and cultural value system of a regional tourist destination. It also depends on the relationship taken.

Declaration of Competing Interest

We declare that we have no financial and personal relationships with other people or organizations that can inappropriately influence our work.

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