Pavlopetri, the World’s Oldest Submerged City: Analysis of Dive Tourism Perspectives Development in the Region Through S. W. O. T Analysis

George Kipreos¹, Pantelis Konstantinakos¹, Ioanna Anagnostopoulou¹, Anastasia Perrea², Stylianos Kaprinis³

¹Department of Sport Management, University of Peloponnese, Sparta, Greece
²Ministry of Education, Research and Religious Affairs, 107th Primary School, Athens, Greece
³Ministry of Education, Research and Religious Affairs, 3rd Primary School, Halandri, Greece

Email address:
kipreos@uop.gr (G. Kipreos), skaprinis@yahoo.gr (S. Kaprinis)

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Abstract: Greece is considered to be one of the most popular worldwide tourism destinations, since it is ranked in the 15th position of the world host countries for the year 2015. Despite the industry’s dynamism, inherent weaknesses of Greek tourism products, such as seasonality, geographical distribution, saturation of popular island areas and tourist products single cultivation, are an obstacle to the areas’ sustainable development. Repositioning of Greek tourism in the international market may take place by utilizing alternative forms of thematic tourism. Scuba diving as an alternative tourism form may be a relevant and a decisive development factor and may offer the advantage of innovation by creating new tourism products. In this current study the development prospects of diving tourism through the creation of a diving center in Peloponnese’s Pavlopetri, the oldest submerged city in the world, have expanded. The prehistoric city of the Early Bronze Age can highlight the area as a new tourism destination and win the attributed share of the market. For imprinting the current situation and for developing a strategic plan, S. W. O. T. Analysis was conducted, which is considered to be a tool that analyzes the internal and external environment and reflects to the potential strengths and weaknesses of Pavlopetri as well as the opportunities and potential threats that exist in the tourism industry environment in the wider region of Peloponnese. Furthermore, interviews of the areas’ institutional and professional authorities support the opinion that there could be multiple benefits from the sustainable development of the region, through the creation of a thematic diving park, the protection of remarkable prehistoric characteristics and through the promotion of the cultural heritage. In conclusion, it is supported that as the global market continuously seeks differentiated tourism products, the Peloponessene region can become a quality tourism destination, highlighting different ways of tourism approach through scuba diving and sports recreation activities.

Keywords: Dive Tourism, Diving Parks, Scuba Diving, Pavlopetri, Peloponnese, Greece

1. Introduction

Beneath the oceans, seas and lakes surface, lies a native recording of prehistoric and historic period with ship wrecks, sunken cities, port works and other traces of the past [1]. The immense wealth of seabed is a magnet for those seeking the magic of underwater exploration and therefore recreational scuba diving constitutes one of the most popular and fast growing tourist activities [2, 3]. Scuba diving tourism is internationally one of the fastest growing sectors, since only in Europe there are currently more than 3.000.000 active divers, while 1.500.000 of them, travel once a year to a diving destination spending more than 3.8 billion Euros [4, 5]. According to the World Tourism Organization, autonomy scuba diving consist the second tourist sport activity after winter sports, with an annual turnover of 3.5-5.0 billion Euros [6]. Although Greece could be an underwater paradise for the
lovers of this kind of tourism, scuba diving in the country displays low competitiveness because until recently, underwater activities were forbidden for the protection of underwater antiquities. Greece features more than 16,000 kilometers of coastline, nearly 35% of Europe’s total coastlines, and approximately 3,000 islands. The beauty of Greek seabed, the underwater riches with submerged cities and the unexploited historical shipwrecks combined with the excellent climate, especially the warm and clear waters, can highlight the country, according to the Professional Association of Diving Instructors, to a top diving destination. The transform of Greece to a powerful diving destination requires efficient strategic planning in the context of a long lasting and sustainable development.

Main objective of this current study is the analysis of scuba diving development prospects of the submerged prehistoric settlement of Pavlopetri and the wider areas of Peloponnesse region. An attempt is carried out, through SWOT analysis, with the evaluation of strength and weaknesses of the internal environment and the exploration of the opportunities and potential threats surrounding the tourism industry of the region. Furthermore, interviews were conducted to institutional and professional authorities’ representatives, in order to detect the perceptions and opinions of local residents on the enrichment, diversification and improvement of tourism products quality.

### 2. Literature Review

#### 2.1. Scuba diving Tourism

According to the World Commission on Environment and Development [7] “Viable sustainable development is the development that satisfies the needs of the present without reducing the ability of future generations to satisfy their own”. Such a development supports all the alternative forms of tourism. Scuba diving combines various forms and is orientated on (a) environment and clean nature, (b) educational tourism, culture and history (c) events, (d) entertainment and fun, known as 4E model [8, 9]. National Scuba diving parks is the category used internationally for the scuba diver’s service and satisfaction [10].

Scuba diving parks can be defined as small protected marine areas, by site and natural underwater bas relief, suitable for recreational diving, closed to any intervention or other activity and especially to any form of fishing except from diving recreation, seabed overview, environmental education and scientific research [11]. Scuba diving parks are mild with marginal and friendly environmental development and with huge benefits for the local community and the environment. Moreover, recreational scuba diving is an activity perfectly compatible to the protection and conservation of the underwater environment [12, 13]. Therefore, they can be defined even in NATURA areas or other similar protected regimes which allow recreational diving and mild activities such as ecotourism [11].

According to Australian Organization of Tourism and Events Queensland [14] “Scuba diving tourism is a travel where at least one scuba diving expedition is included”. Self-Contained Underwater Breathing Apparatus is a popular recreational underwater activity carried out with air supply through a specific mechanism. It is characteristic, that one of the prestigious International Scuba diving organizations, Professional Association of Diving Instructors (PADI), from 1976 up to 2016, has certified more than 24,000,000 internationally autonomous divers, and each year approximately 1,000,000 divers get certified [15]. Furthermore, according to accurate diving organizations, such as Recreational Scuba Diving Council Europe and European Underwater Federation [16, 4] it is estimated that in Europe there are over 3.5 million active divers, from which more than 1.5 million each year make at least one diving trip to a diving destination, mainly to a Mediterranean destination. On average, these divers in each trip they make, stay more than 10 days and spend for their activity more than 3.8 billion Euros annually [17]. The data show that recreational scuba diving and scuba diving tourism is a powerful branch of the international economy, with annual turnover of billions of Euros. Entire nations (Caribbean, Seychelles, Maldives, Tobacco and Trinidad, Malaysia etc.) live solely from scuba diving tourism. In several countries (Thailand, Canary Islands, Egypt, Malta etc.) the income of diving tourism represents one of the largest sections of governments’ budgets [18, 19, and 20]. For example, 27% of Malta’s’ GTP originates from scuba diving. Today, popular diving destinations are Spain, Turkey and Croatia. Croatia for instance, following a demarcation of 170 scuba diving parks policy and after authorities sinking old ships in order to increase their wrecks, managed a rapid increase of scuba diving tourism by 27% during the years 2006 to 2010. Similar programs of sinking ships for the creation of artificial reefs were adopted from U. S. A which resulted to the creation of new biotopes and to significant economic benefits for the local communities. Characteristic examples are Nags head in North Carolina, Tahoe Lake in California, Champlain Lake in Vermont and Florida. In U. S. A., 225 shipwrecks were declared as Marine Protected Areas, both for their cultural as to their biological wealth.

Many countries of Europe constitute a scuba diving tourism development model, that have managed to reposition their tourism product through good practices, such as creating diving parks, sinking ships and creating underwater archaeologic museums having achieved the goal of sustainable tourism development. One such example is the Sea Park Mendes in Spain. Three small islands at the tourist resort L’ Estartit in the archipelago Mendes of Spain, are today one of the most important diving destinations in Europe [21, 3]. In 1990 the once overfished islands immersed in the recession of tourist development looked for alternative forms of tourism and saw recreational diving as a unique solution [22]. The islands were transformed to a scuba diving park and over 20,000 divers visit annually the park and over 60,000 diving are conducted each year [3]. The tourist period lasts for 365 days, and the annual revenue derived only from the scuba diving tourism amounts to 3 million Euros. Few years ago, more than 75,000 dives were conducted and the demand
continually increased till the authorities decided to impose a ceiling of 1,500 divers per day [13, 12].

Malta, without having the Red Sea seabed or other popular diving destinations, thanks to the island Gozo, managed to become an underwater paradise for ship wreck lovers. During the historic times, on the coast of the area, important naval battles took place, leading huge number of ships to the bottom of the sea. The Ministry of Tourism understanding the meaning of scuba diving tourism arranged to sink enough ships in different depths that literally intimidated divers to visit the area [23]. Turkey, taking advantage of their underwater archaeological findings, decided to put them in plain sight for diver tourists. In the coastal city of Bodrum, southwest of Turkey, visitors have the opportunity, by paying a small fee and with the escort of Underwater Antiquity Officials, to conduct organized diving in underwater archaeological museums.

Sharm el Sheikh in Egypt, having 40 diving parks, 300 diving boats and more than 20,000 hotel beds, supported by dynamic advertising campaigns of the Egyptian Ministry of Tourism, managed to bypass the seasonality of the summer month’s tourist model and developed tourism throughout the year with income million Euros. Lastly, diving tourism in Cyprus is centered in Larnaca with the “Zenobia” ship wreck which is one of the ten most important shipwrecks in the world and the first most important in the Mediterranean. Scuba dives at “Zenobia” reach 30,000-40,000 per year.

Scuba diving tourism in Greece does not present significant increased features like other competing countries, has trouble attracting diving tourists and fails to win a share of the tourism market. Low competitiveness is explained by the fact that until 2005 amateur diving was prohibited in the Greek territory, mainly for reasons of underwater antiquities protection [24]. According to 2011 data’s, 200 certified diving centers operate in Greece, with the largest number of diving centers and training centers located in Crete, Corfu, Athens and Piraeus. The first diving centers that operated in Greece were located in Peloponnese area (Sapienza Island, Navarino Bay and Tiros) while at an advanced stage the biggest scuba diving park of Europe is situated at the island complex of Sporades in Magnesia.

2.2. Diving Tourists’ Profile and Participation Incentives

International studies [2, 25 and 26] relating to the amateurs divers profile, show that divers are highly financially and educated people, who respect the natural environment, are not reluctant to travel frequently even to long haul destinations and are capable to spend money. According to PADI statistics, 80% of people certified as Open Water Divers, have finished college [26]. In any case, they are mainly people who love to escape and have environmental sensitivity. Besides, divers’ motivation, as an alternative tourist, can be understood as an asset nature (wandering, adventure, and walking) explorative nature (history, civilization, archaeology) and environmental (nature, authenticity search, environmental protection) [27]. According to Coccossis & Tsartas [28], the above lead, to the avoidance of trite destinations, to the refusal of tourist packages, and to the search of authenticity and adventure. Furthermore, the electronic poll conducted in 2013 by the American magazine Scuba Diving indicated that 23% of divers consider as a first priority the overall image of a travel destination. The surrounding area of Peloponnese has a diversity of geological formations and ecosystems such as imposing mountains, caves, gorges, climbing areas, rivers, hydro biotypes, NATURA areas and landscapes with natural beauty. In this environmental background, alternative tourism and adventure activities can be easily operated, where divers can combine scuba diving with other alternative activities such as bird watching, cave visiting, climbing, gorge crossing, mountain biking, paragliding etc. The divers’ desire rate for contact with wild nature, with new experiences and adventure, as well as their interest for specific activities such as photography and video shooting, composes incentives for participation in the overall diving experience [2].

In the majority, those who decide to get involved with diving, consider it as a challenge in order to test their capabilities, to create new emotions and to experience a new unexplored world. Scuba diving for recreational and entertainment purposes are considered to be attractive, especially for young people, which explain that countries without sea, such as Switzerland and Austria present rapid growth with clubs, diving and learning facilities and organized tourism, since for example Austria has 50 and Switzerland 100 clubs. Divers also consider scuba diving as a mean of relaxation, knowledge and ship wreck visiting [6]. Although, in the international bibliography, scuba diving is usually classified in ecotourism, many researchers consider that scuba diving should also be classified in adventure tourism [29].

2.3. Pavlopetri–City Underneath the Waves

Pavlopetri is a small Greek islet located in Laconia, on the south coast of Peloponnese. There lays a submerged ancient city aged 5,000 years old. This city is considered to be unique as it is the oldest underwater city in the world [30, 31]. The recording of shells that were found, indicate that the submerged city was built in the Bronze Years (3rd Millennium) and flourished for two thousand years prior to the birth of western civilization. Pavlopetri was discovered in 1967 by Nicholas Flemming and was mapped in 1968 from a Cambridge University team. Today, the research and archaeological program continue from Nottingham’s University, Underwater Archeological Center. The prehistoric city spans 90,000 sq. and has an excellent and integrated town planning, public buildings, monuments, squares and two-storey buildings surround by gardens. Furthermore, the city has a complex water management system (with channels and gutters) and even a cemetery [31]. This neglected place in prehistoric times had occurred to be a thriving port with intense social stratification, and a lifestyle that made the Head of Investigation John Henderson to talk about the Greek Pompey. It is speculated that the city submerged in 1.000 B. C. Three theories try to answer the question relating to how the city submerged. The first theory supports that the level of the sea gradually ascended, the second that the ground subsided and the third that the city submerged due to an earthquake and tsunami. According to the British site Luxury Blog Travel, this underwater civilization monument of Peloponnese is
amongst the three top diving destinations in Mediterranean.

2.4. S. W. O. T. Perspective Development Analysis of Diving Tourism at Pavlopetri

S. W. O. T. Analysis method is divided into internal and external analysis. Internal Analysis aims to identify the comparative advantages, to detect and to evaluate the weak points of the organizations’ internal environment, while external analysis aims to detect and to take advantage of potential opportunities and to reduce future threats (table 1). This creates a starting point to establish a tourism marketing blueprint for Peloponnese region.

Table 1. SWOT Matrix Analysis of Diving Tourism in Pavlopetri and Region of Peloponnese.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safe tourist destination.</td>
<td>Seasonality tourism (summer months).</td>
<td>Economic support through ESPA as a member of EU.</td>
<td>High scuba diving tourism competitiveness from neighboring countries.</td>
</tr>
<tr>
<td>New, dynamic and nearby destination for European divers.</td>
<td>Insufficient recreational sports supporting infrastructure (golf, marines, thematic parks).</td>
<td>Conversion of Tripoli’s military airport to a civil airport.</td>
<td>Time consuming process of diving park integration.</td>
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<tr>
<td>Proximity to the Capital city Athens.</td>
<td>Laconia is accessible mainly by road.</td>
<td>Tourist product clustering with agro-foods products (biological products)</td>
<td>Time consuming and difficult process in business loans due to economic crisis.</td>
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<tr>
<td>Existence of Kalamata Airport (Charter flights)</td>
<td>Insufficient port infrastructures.</td>
<td>Education programs development and training with emphasis on new professions (marine sports instructors, rafting instructors, ski/snowboard instructors, horseback riding, and mountain guiders).</td>
<td>Lack of advertising tourist product.</td>
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<td>Existence of Katakolo port ideal for cruise ship docking.</td>
<td>Existence of 139 hotels, from which 22% of them are ranked as 4-5 stars hotels (2014).</td>
<td>Market place development in the alternative tourism model.</td>
<td>Construction delay of main highways that will link the region with Athens and the region ports</td>
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<tr>
<td>Strong archeological and cultural heritage (UNESCO, Mycenaean civilization, Epidaurus, Land of Hercules etc.)</td>
<td>Lack of qualified staff and managers</td>
<td>Sustainable exploitation of region’s natural resources.</td>
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<tr>
<td>Unique history heritage (Ancient Greece, Olympia/ Olympic Games).</td>
<td></td>
<td>Thematic tourism development possibilities (winter tourism, argritourism, ecotourism, trekking and cultural tourism).</td>
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<tr>
<td>Medieval Greece (Mystras, Monemvasia).</td>
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<tr>
<td>Unique area for adventure tourism (6 gauges, 4 climbing shelters, rivers for rafting, canoe kayak etc.)</td>
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<tr>
<td>Unique area for winter sports (2 ski centers).</td>
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<tr>
<td>Submerged prehistoric cities, ship wrecks offered for diving and snorkeling.</td>
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<tr>
<td>Excellent weather conditions appropriate for scuba diving all year long.</td>
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<tr>
<td>Absence of extreme weather conditions and dangerous marine species.</td>
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<tr>
<td>Many kilometers of coastline (1.200 km) for boating.</td>
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<tr>
<td>Excellent seafront with 334 blue flag beaches in Peloponnese.</td>
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<tr>
<td>Unique area to combine ecotourism (28 NATURA areas, biotypes, wide variety of flora and fauna).</td>
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<tr>
<td>Area of great natural beauty and great aesthetic value.</td>
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<tr>
<td>Unique area in combination with argritourism (Greek food, high quality traditional agricultural products, traditional settlements)</td>
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<tr>
<td>Low saturation rates for alternative tourism.</td>
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2.5. Views and Proposals for the Creation of a Thematic Diving Park

In order to investigate the perceptions and views of local residents concerning the progress of Nottingham University team investigations as well as the creation of a diving park, personal interviews of institutional and professional authorities, were conducted. (a) Hoteliers representative, (b) restaurant’s representative, (c) Captain of local ferry boats, (d) Chairman of the local council and (e) Representative of the local ecological organization.

The findings of the interviews displayed that after the discovery of the submerged prehistoric city and mainly after the BBC documentary “City beneath the Waves: Pavlopetri” foreign divers’ interest about the area increased, especially those from Germany and Austria. Alongside, with the slight increase of tourists in the area, an increase of Pavlopetri brand name on the internet was observed. Concerning the management of the archaeology program, optimism was expressed for the continuation of the research that will lead to the establishment of the theme diving park and to the further development of the area.

The proposal for the establishment of a theme diving park is strongly supported by the local community. Locals believe that the park will lead to an increase in tourism and economic growth in the region. The representative of the local ecological organization, without being negative about the creation of an underwater museum, stressed out that the main priority should be the protection of the environment. He proposed the supervision, protection and the overall control by leading factors and the establishment of the theme park with ecological restrictions.

The representatives of professional carriers additionally proposed: (a) Infrastructure enhancement for the accessibility of the area through modern road networks, (b) construction of a marina, (c) connection to the airports of Peloponnese, (d) construction of a museum and an information center that will attract more tourists, and (e) Showcasing and advertising of the region.

3. Discussion

The establishment of a thematic diving park in Pavlopetri area constitutes a sustainable ecological development of the region. Structural components of this growth are: (a) protection of the environment, (b) rational management of natural resources, (c) conservation of an ideal balance between tourism and nature, (d) promotion of cultural and history heritage, (e) innovation in enriching the tourist product, (f) improvement of quality tourism services. Consequently, the design, organization and strategy of the tourism market development must be adapted to its distinctiveness, position, natural beauty, to its history and culture. Main directions of alternative tourism is autonomous diving which was imprinted in SWOT Analysis and can be harmonically combined with ecotourism, adventure tourism, agritourism, mountain tourism and cultural tourism. The diversity of the tourist product and the enriched tourist experience can provide a competitive advantage of the region. Summarizing all the above, it can be supported that strategic design of the tourism product should include: (a) exploitation of natural resources, (b) sports recreation activities development and (c) development of means for promotion. Experience and learning tourism is proposed as a new tourism model.

A construction of a diving park in Pavlopetri area presents great advantages since it respects the environment, cares and protects the environment, respects culture and displays cultural heritage, contributes to viable and sustainable rural development, strengthens small businesses, strengthens the local community and offers tourism experiences with quality and values. The strategic tourism development in Peloponnese region as well as the marketing mix should target at:

- Configuration of a tourism image by highlighting Pavlopetri as a unique destination.
- Conjugation of scuba diving tourism with other forms of alternative tourism.
- Promotion in new markets.
- Promotion of Peloponess as a brand name.
- Continuous search for target groups and study of these concepts.
- Establishment of a special promotion image (publications, brochures, magazines, television, internet, tourist guides, radio etc.)
- Promotion of the area through niche websites of alternative tourism forms.
- Organization of small and large events as well as exhibitions.
- Highlight in quality and customer quality.

4. Conclusions

This current study supports the view that a creation of a thematic scuba diving park in Pavlopetri area will become a reference point in the region. The scuba diving centre will promote the history and cultural heritage of the unexplored submerged city. The expected results include the exploitation of coastal and marine environment in terms of sustainability, the creation of high added tourism value and the internationally promotion of cultural–tourism product of Greece. The contribution of the scuba diving park will be important to the guidelines and to the revised targets of the European Union as they were expressed in the Conferences of Lisbon (Lisbon Strategy, 2000-2010) [32, 33] & Goteborg [34] (Innovation-Entrepreneurship–Environmentally balanced development–Sustainability). The creation of the diving centre represents innovation while at the same time has the opportunity to build a sustainable future for the marine ecology, for the underwater antiquities, for the divers and for the social and economic development of the area. Local residents expect positive impacts with the creation of new professions.
directly linked to diving, while the economic benefits will not only concern the companies linked to diving but will extend to numerous others professional activities. Furthermore, the construction of new infrastructure, road network and new airport will upgrade the region.

References
