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## Exploring New Horizons: Unleashing Tourism Potential through Innovative Product Development Inspired by Surfing – An Introductory Exploration

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### **Abstract:**

**Purpose:** The aim of this article is to present the physical, geographical and spatial conditions of surfing in the world, and in particular to indicate the possibilities of creating new tourist products for active tourists.

**Sedigne/Methodology/Approche:** The modern market of tourist services needs new tourist products and new activities that allow us to create a new offer for tourists. The research hypothesis was defined as follows: The tourism industry and its infrastructure needs necessary to ensure efficient tourist service mean that the creation of new tourist products contributes to the development of a given space, and one of the development tools may be surfing.

**Findings:** Without a properly developed infrastructure for tourism, it is impossible to talk about its attractiveness and full operational and development functionality of the market. Tourism development based on specific tourist activities is a basic element of spatial development.

**Practical implications:** Surfing brings many benefits and opportunities, among which there is certainly the joy of contact with the element that is the ocean, or perhaps an element that cannot be mastered, but can be understood and, in harmony with its nature, managed for the benefit of many.

**Oryginal/value:** The article has a practical application. The results can be used by people planning the development of traditional spatial tourism product.

**Keywords:** Tourism spatial development, tourism product, surfing.

**JEL classification:** Q42, R11, R28.

**Paper Type:** Research article.

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## **1. Introduction**

Contemporary tourism space is developing, among others: through the creation and development of various types of infrastructure products, which are largely factors in increasing incoming tourist traffic and appropriate tourist development in a given destination. These products most often become tourist attractions that attract tourists. These products are based on the presence of specific natural values, which determine their offering and creation.

Therefore, coastal and ocean areas are becoming important destinations for tourists to develop such products. Water tourism and related water tourism products are successfully developing there. Currently, infrastructure for water and seaside tourism is perceived as an independent tourism product in many tourist spaces.

Water and waterside tourism itself includes, among others, organization of kayaking trips (marinas and kayak routes needed), sailing and motorboat cruises (marinas and marinas needed, as well as adapted water areas), passenger shipping (including needed ferry ports and marinas for passenger ships), diving, sea fishing, surfing, kitesurfing, windsurfing, etc. At the same time, there are many places that are known for practicing various forms of water tourism, including surfing.

These include, among others, Baltic Sea coast, Hel Peninsula, Bay of Puck, Rybnik Lagoon, Le Morne (Mauritius), Canary Islands (Spain), California (USA), Portuguese Coast, Lake Arenal in Costa Rica. It is a popular form of spending free time, especially among people who like physical activity and contact with nature.

Surfing is also one of the phenomena of our times. Every year, the number of enthusiasts of this sport, tourism and recreation increases, looking for an escape from the pace of modern life, wanting to taste the priceless contact with nature, as well as experience the extraordinary emotions that surfing gives. Surfing is one of the types of qualified tourism, which is a common term for types of tourism that require the tourist to have appropriate personal qualifications and skills.

Apart from surfing, qualified tourism includes such types of tourism as: mountain hiking, skiing, bicycle tourism, motor tourism, kayaking, sailing, equestrian tourism, etc. Qualified tourism is the highest form of tourist specialization. Practicing it requires special psychophysical preparation, hardiness to endure hardships, the ability to behave in the natural environment and in tourist facilities, and in some cases, the ability to use tourist equipment (e.g., bicycle, surfboard, sailboat, skis, diving equipment, climbing, etc.).

Therefore, surfing requires physical and mental preparation, the ability to use specialized water tourist equipment and the necessary knowledge to practice it (physical and geographical). The aim of this article is to present the conditions and possibilities for the development of tourism space based on the possibility of

creating new products on the example of surfing in selected places around the world and in Poland. The purpose of surfing is, among others, active rest, recreation, improving fitness, endurance and health, as well as comprehensive knowledge of places where this sport can be practiced.

Therefore, the purpose of practicing a qualified sport such as surfing is to strive to achieve maximum results in competition and to demonstrate an advantage over others. Surfing also contributes to the development of tourist spaces, especially coastal areas, where there are favorable physical and geographical conditions for practicing this type of activity. Surfing contributes to increasing tourist traffic, increasing the tourist attractiveness of a given area and creating new jobs.

Surfing, as many tourist destinations show, expands the tourist offer, contributes to the creation of a new destination brand and helps extend the tourist season, as well as diversify tourists visiting a given area (Adamopoulos and Thalassinou, 2020). Surfing and various other water sports based on similar qualifications contribute to raising the prestige of the places where it is practiced.

## **2. Surfing as a Sporting, Recreational and Tourist Activity**

Surfing as a sporting and recreational activity came with the inhabitants of the Polynesian islands to Hawaii over a thousand years ago, finding ideal physical conditions for development on the Hawaiian coast (wind conditions, the occurrence of specific waves and the type of coast). Engravings from the 16th, 17th and 18th centuries show wooden boards very similar in shape to the present ones.

The first modern description of surfing on a board can be found in Captain James Cook's diary from his voyage to Hawaii in 1778. He described the displays of natives gliding with incredible dexterity on the waves of the surf on appropriately carved boards of various sizes, lying on them, kneeling or standing. In the 18th and 19th centuries, 400-centimeter-long boards were used, on which surfing was only possible on smaller waves that did not exceed a height of 2 meters ([www.surfingforlife.com](http://www.surfingforlife.com))

In 1900, George Freeth (half Hawaiian, half Irish) gave impetus to the development of modern surfing. He learned to surf on his own on the beach of Waikiki (Hawaii). He used very long boards made entirely of wood. Around this time, the Hawaiian name of this sport, Hee'nalu, changes its name to the English surfing (riding, sliding on a board on the waves).

Freeth's arrival in the United States proved to be a milestone in the expansion of surfing around the world. The writer Jack London also contributed to the popularization of surfing not only in Hawaii, but also in California. Impressed by Freeth's achievements, he discovered surfing for himself and for Americans by publishing *Surfing: The Royal Sport* (1911).

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At the turn of the 1920s and 1930s, surfing developed on the beaches of California (including the beach in Malibu). In 1935, Tom Blake attached a fin to his board, which greatly improved his turning technique and use of the wave. He is considered to be the person who turned the original style of surfing into a modern sport. In 1956, the American Viertel surfs on a board in Biarritz on the Bay of Biscay (France), initiating the development of surfing in Europe.

The second half of the 20th century saw the further spread and rapid development of surfing on the ocean coasts of South America, Australia and Oceania, Africa and Asia. New shapes of boards are introduced and additional thruster elements are created. Currently, surfboards reach lengths from 150 to over 270 centimeters, and surfing is practiced on ocean waves that exceed even 10 meters in height. ([www.surfing.com.pl](http://www.surfing.com.pl))

Currently, surfing has become a very popular sport and form of recreation, as well as a reason for tourist trips as a way to actively spend free time. There are many spectacular competitions in this sport taking place around the world, attracting athletes, amateurs and spectators. The largest and most famous event of this type is ASP WT (Association of Surfing Professionals World Tour), most often called the Dream Tour. It is a series of cup competitions held among an elite group of the best 45 surfers in the world. To be among the best, you must pass a series of qualifications, i.e. the World Qualifying Series (WQS).

Even being granted the opportunity to participate in WQS is a great achievement for many surfers. There are 10 events in the series (8 for women) and each usually lasts about a week. In places where conditions cannot be completely predicted, so-called mobile competitions with other competition locations prepared.

There are also competitions whose location does not need to be changed because at a given time of year there are always waves with appropriate heights for surfing. These include the coasts of Teahupoo (Tahiti), Pipeline (Hawaii) and Trestles (USA). ([www.surf.360mag.pl](http://www.surf.360mag.pl))

It should be emphasized that despite unfavorable physical and geographical conditions, surfing is also present in Poland. In 2006, the Polish Surfing Association was registered, bringing together enthusiasts of this sport, and since 2007, surfing competitions have been organized annually as part of the Polish Surfing Challenge. ([www.surfing.com.pl](http://www.surfing.com.pl))

The most popular surfing spots in Poland include towns located in the Pomeranian and West Pomeranian Voivodeships, namely: Piaski, Sztutowo, Sobieszewo, Górkki Zachodnie, Chałupy, Władysławowo, Faleza, Łeba, Dąbki, Kołobrzeg. The Mecca of Polish water sports is the Hel Peninsula. It is a unique place in many respects and one of the best reservoirs for water sports in Europe. There are several reasons:

- very good water and tourist infrastructure,
- very large, shallow and safe Bay of Puck (great for windsurfing and kitesurfing),
- a 30 km long beach on the Baltic Sea side with numerous kite/wind/surf spots such as: "Port Władysławowo", "Chałupy", "Kuźnica", "Jastarnia and Jurata" or not far from the actual Spit - "Karwia" and "Jastrzębia" Mountain",
- presence of numerous water sports schools meeting world-class standards,
- beautiful natural circumstances. ([www.palikisurf.pl](http://www.palikisurf.pl)).

Scientific research plays a valuable role in the development of surfing. Studies of the physical processes that create surf waves and surfing areas have been conducted for many years and include the initial studies of Hawaiian coastal waves in the early 1970s (Walker *et al.*, 1972; Walker, 1974). Significant progress in this process occurred in the 1990s, with the development of the "Artificial Reefs Program" at the University of Waikato in New Zealand (Andrews, 1997; Hutt, 1997; Mead, 2001; Moores, 2001; Sayce, 1997; Scarfe, 2002).

The first Artificial Surf Reef Symposium in Sydney, Australia (1997) and the second one in San Diego, California (1998) generated widespread interest in the subject, going well beyond the circles previously associated with surfing. We managed to unite surfing enthusiasts and a wide range of professionals from other fields of sports and infrastructure development.

In 2002, another scientific conference for the Development of Surfing Art was held in California (The Second Surfing Art, Science, and Issues Conference), which introduced many new ideas to the discussion around surfing. Compendia and summaries of knowledge about learning to surf and the construction of artificial surfing reefs have appeared.

Some of these publications include: *The Science of Surfing Waves and Surfing Breaks* (Scarfe *et al.*, 2003), *Improved stochastic models for surfing climate* (Dally, 2001) and publications in the *Journal of Coastal Research* on predicting the intensity and strength of surfing waves, forecasting currents creating waves and the impact of these factors on shaping beaches in the area of surfing waters.

### **3. Characteristics of Surfing Waves**

The feature that determines the surfing capabilities of a wave is its breaking point, which moves along its crest. The zone with the highest energy is located on the edge of the advancing wave crest, directly on the breaking wave top and the immediately adjacent wave wall zone, the so-called pocket.

Experienced surfers look for so-called waves flaky. If the wave is peeling to the right from the surfer's perspective (to the left when viewed from the beach), the wave is said to be a "righthand" wave. If the wave breaks to the left from the surfer's perspective (to the right when viewed from the beach), the wave is said to be

"lefthanded". The speed at which a wave breaks and the location of the breaking point determine its suitability for surfing and the demands it places on the surfer's skill. They also limit the types and types of maneuvers that can be performed by a surfer.

Not all waves are suitable for surfing, and of those that are, not all are friendly to surfers of different skill levels. The nature of surfing waves changes not only depending on the location, but also depends on weather conditions (wind parameters), the direction and height of the wave overrun, water level (tides), and currents. In practice, even subsequent waves may arise with significantly different characteristics (Wiśniewski, 1998, Scarfe *et al.*, 2002).

Surfing is a form of recreation, and surfing maneuvers are the goal of every surfer. The first studies of surfing maneuvers were conducted by Scarfe (2002), who divided maneuvers into functional, transitional or expressive. The categories of maneuvers change depending on the surfer's skill level. Surfers with low skill levels usually perform functional maneuvers that are necessary to keep up with the breaking wave and keep the surfer in the active zone. Surfers with higher skill levels perform more expressive maneuvers. A basic, functional maneuver for an advanced surfer will be an expressive maneuver for a beginner (Scarfe *et al.*, 2002).

Seven characteristic components that are part of the bottom of surfing waters can be compared and their impact analyzed on a macro, meso and micro scale. At the largest scales, offshore components refract and organize waves long before they break offshore. For example, a ramp can smooth out waves along the entire coastline, or it can act as a smaller reef component, smoothing out a section of a wave before it breaks on another component.

Macroscale components affect the direction and alignment of waves, but do not cause refraction. At the meso scale, components concentrate and orient waves before they are refracted and can already cause refraction. The microscale components are additionally superimposed on the mesoscale. On the microscale, sections form combinations with different refraction angles and intensities (Scarfe, 2002).

Knowledge about creating conditions favorable for surfing and the relationships of factors determining the attractiveness of surfing waters is sufficiently rich and can be used to organize the activities of existing natural water bodies and build artificial surfing reefs. However, in practice, applying this knowledge is insufficient. Offshore work is often carried out without engineering analysis and consideration of its impact on the surfing and natural environments.

This is not due to engineers ignoring the problem. The reason is rather the lack of vision and knowledge among coastal managers. Publications showing the possibilities of modifying coastlines in accordance with current scientific achievements on hydrodynamics and mechanics of coastal waters can help preserve

many attractive places for surfing and thus provide economic support to local communities.

#### **4. Surfing on Selected Coasts**

For the needs of surfers, coasts around the world have been divided into surf zones, the names of which are derived from the geographical names of individual places. The areas are divided into surf spots, which are usually several hundred meters of the coast and which also have their own names. This division makes it easier for surfers to choose and locate the place where they want to surf.

Information points and websites for surfers use the division into surfing zones and surfing points to specify the actual conditions (type of coast, wind direction, approximate, average wave height, etc.) and the level of skill that a surfer should have when going to a specific point. All surfing regions on virtually every continent except Antarctica are described in a similar way (Duszkiewicz, 2009). Below are some of the most popular surfing regions in the world.

##### ***Hawaiian coast (USA):***

The surfing season in Hawaii lasts practically all year round, but the best conditions for surfers are between November and February. Hawaii has 4 surf areas divided into 198 surf spots. A great convenience for surfers is the large number of surfing equipment rental companies. In Hawaii, there are popular workshops where boards tailored to customer requirements are made. Hawaii is also an important tourist destination, with a wide range of accommodation options.

##### ***Coast of California (USA):***

There are 14 surf areas in California, consisting of 472 points. The best time for surfing in California is between July and November. Surfing is an extremely popular sport among Californians, which is certainly due to easy access and excellent conditions for practicing it. On every beach you can find at least a few equipment rental and service shops. There is a large number of shops selling exclusively surfing products ([www4.fe.uc.pt](http://www4.fe.uc.pt)).

##### ***Coast of New South Wales (Australia):***

Virtually the entire continent of Australia has many areas where surfing is practiced. New South Wales is the most adapted in terms of the development of tourist base and physical and geographical conditions. ([www.atec.net.au](http://www.atec.net.au)) There are 11 surfing areas and as many as 567 surfing points in New South Wales, and the best season for surfing lasts from May to October.

Surfing here is mainly practiced by Australians and New Zealanders. Foreign tourists take advantage of surfing rather "occasionally", but it is a very popular way of spending time in this part of Australia. Despite very good surfing conditions, it is

not easy to find equipment rentals. It is definitely easier to buy, although relatively high prices must be taken into account ([www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)).

***Coast of New Zealand:***

New Zealand's North Island has 10 areas and 260 surf spots. The South Island has 5 areas, divided into 89 surfing spots. In New Zealand, the best surfing conditions are from May to October.

Surfing, similarly to Australia, is practiced mainly by natives and Australians, but this may change in the coming years, as efforts are being made to encourage foreign tourists to surf on the coast of this country. Surfing schools have been established, surfing camps are being organized for young people, and the availability of equipment, accessories and professional knowledge is increasing at a rapid rate. The accommodation base is constantly being expanded, which causes increased competition and thus a drop in prices ([www.kzn.org.za](http://www.kzn.org.za)).

***Coast of Brazil:***

On the 7,491 km long Brazilian coast, there are 20 surfing areas, which in turn are divided into 378 surfing points. The best conditions for surfing are between April and September.

A serious threat to the development of tourism is the high crime rate, which is especially visible in large cities ([www.braziltour.com](http://www.braziltour.com)). Despite the inconvenience, many surfers, especially from the USA, visit Brazilian beaches. They are attracted not only by excellent weather conditions, but also by relatively low prices. The fact that they have to bring all the equipment with them, which is difficult to rent on Brazilian beaches, and the purchase is a very large expense, is not an obstacle ([www.sustainabletourismbrazil.org](http://www.sustainabletourismbrazil.org)).

***Coast of Portugal:***

The coast of Portugal is 1,793 km long and is divided into 7 surfing areas consisting of 229 surfing points. The best surfing conditions are from April to June.

Portugal is one of the few countries in Europe where you can practice surfing in the full sense of the word. Even though the climate for surfers is not as perfect as in Hawaii, the number of visitors practicing this sport in Portugal is growing every year. Surfing enthusiasts are mostly European. Thanks to the perfectly adapted infrastructure, short weekend trips to Portugal are popular, especially among Germans, Spaniards, English and French. Thanks largely to the coast of Portugal, surfing is finding a growing group of enthusiasts in Europe.

***Coast of South Africa:***

The 2,798 km long coast of South Africa has 12 surf areas divided into 572 surf points. The best surfing conditions in South Africa are between May and August.

Foreign surfers most often use African waves in organized groups. Most of them are Europeans and US citizens. European and American travel agencies offering trips to South Africa for surfing are popular. Such groups find accommodation close to the coast in well-guarded resorts ([www.southafrica-newyork.net](http://www.southafrica-newyork.net)).

***Polish coast:***

On the Polish coast, due to different physical and geographical conditions than on ocean coasts (unfavorable wave, wind and bottom bathymetry parameters), there are no optimal conditions for the development of surfing. For practicing this form of sport in the Baltic Sea, the best conditions are at sea states between 4 and 8, therefore the appropriate period to practice this sport is the period immediately after the storm.

Baltic waves can then reach 1.5 m and more. In a good season (summer and autumn), several storms may occur, after which the surfing wave will last for about 2 days (Wiśniewski, 1998; Jakusik, 2006). Smaller waves that you can surf on quite often appear on the Baltic Sea. One day or night of wind with a force of 5-6° B from the west or north is enough and you can count on favorable conditions in the evening or morning. Sections of the Polish coast where you can meet surfing enthusiasts are Grzybowo, Łeba, Dąbki, Chałupy, Władysławowo, Hel and Zatoka Puck.

## **5. Health Risks of Surfing and How to Avoid them**

Surfing is a relatively safe sport. The frequency of injuries, especially the more serious ones that require specialized medical assistance, is not high, but like any form of physical activity, it leads to a number of risks related to both the impact of the environment in which it takes place, as well as the specific types of stress on the body. the surfer is surrendered. If you want to practice this sport safely, it is worth knowing what factors may lead to threats and how to eliminate them ([www.surfband.eu](http://www.surfband.eu)).

A prerequisite for practicing water sports, including surfing, is good swimming skills. This statement seems to be a truism, but you can meet people who cannot swim and want to learn to surf on a board. A common argument in such cases is that they have life jackets, wet suits and intend to swim in shallow water.

However, these are not sufficient conditions for safe movement around the water body. Both the lifejacket and the wetsuit do not provide full buoyancy. It is not always possible to swim where the water is shallow. Moreover, while swimming, there are situations in which very good water familiarity is necessary ([www.surfband.eu](http://www.surfband.eu)).

Surfing, like any sport, requires warming up and preparing the body for increased activity. Quickly approaching fatigue, overload and injuries (inflammation and strain of muscles, tendons) are the most common reasons for exclusion from further

swimming. Just 5-10 minutes of a solid warm-up is enough to prevent complications. Swimming should start with short warm-up exercises.

Practicing surfing in our climate zone requires the use of appropriate thermal insulation to prevent the body from cooling down. Both the water and air temperatures do not create proper thermal comfort for the human body. A surfer performing work that requires high energy expenditure while swimming and is exposed to wind causing water to evaporate from the body surface is particularly exposed to supercooling. This phenomenon is dangerous to health and life because its symptoms are most often unnoticed or downplayed by swimmers ([www.igeo.pt](http://www.igeo.pt)).

Due to low thermal comfort while swimming, you are more susceptible to infections. It is common knowledge that overheating or cooling increases the risk of upper respiratory tract diseases. In addition, specific types of infections related to practicing the sport of surfing may also occur.

Low ambient temperature that persists for a long time has a negative impact on the urinary-genital system. Due to its weak thermal shield, it is (especially in women) significantly exposed to overcooling. Long-term exposure to cold may result in infections leading to inflammation of the kidneys, bladder or reproductive organs.

The easiest way to avoid these problems would be to stop surfing in cold weather, and unfortunately, this is the only solution for people suffering from these conditions. If you don't want to get this type of disease, you can take several preventive measures, first of all, use wetsuit clothing appropriately selected for the weather conditions. Particular attention should be paid to good insulation of the lumbar part of the back. It is equally important to maintain the proper temperature of the lower limbs.

They are particularly vulnerable to hypothermia because they are constantly in contact with cold water. A large amount of blood flows through them, which, when cooled, may lead to pathological changes in the case of insufficient thermal insulation of the legs.

To prevent this, it is essential to use appropriate quality foam footwear in unfavorable weather conditions, and to protect the thighs and lower legs, use foam clothing covered with a layer of rubber on the outside, not fabric. ([www.emeraldinsight.com](http://www.emeraldinsight.com))

It is not only the cold environment that poses a risk of infection. In any conditions, infections may occur due to the development of pathogenic microorganisms in wetsuit clothing. It has a microclimate that facilitates their reproduction. Mushrooms have particularly "favorable" conditions. If hygiene rules are not followed, skin diseases can easily occur.

## **6. Conclusions**

The development of surfing in the world has been gaining momentum, especially in recent years. Its popularity is constantly growing, and what is important, it is increasing among societies that have not had contact with it before. In Poland, where windsurfing is popular and where there are no coasts suitable for surfing, the first surfers' association has already been established, which organizes regular, annual surfing competitions.

Perhaps this is the result of the creation of newer tourist products that include surfing in their resources, or perhaps it is simply that its uniqueness has begun to be noticed. The fact is that the scientific world, together with enthusiasts, is conducting an increasing number of projects aimed at deeper understanding of the conditions and processes accompanying surfing and creating new directions for the development of this field of sport.

Currently, numerous studies are being carried out on the construction and possibilities of developing fragments of artificial coasts for surfing purposes (including in Poland). The knowledge about the physical and geographical processes that make it possible to practice this field of sport, although still inexhaustible, is sufficient to undertake this type of projects.

Surfing will always be associated with tourism, which is one of the best-developing industries in the world, which is why the quality of tourist products and the values of regions are constantly improving to meet the requirements of visitors. The competition to attract surfing tourists is increasing.

Areas that are famous for their excellent conditions for surfers are forced to share the crowds of tourists with areas that, despite the lack of such perfect waves, can attract visitors with the range of additional services offered and their prices.

The development of the discipline resulted in the popularity of sports competitions. There are many different surfing organizations around the world, thanks to which many events related to this field take place. The high level of surfers' skills results in continuous improvement of surfing techniques, creation of new maneuvers and evolutions, which are often very spectacular.

There are still undiscovered places in the knowledge about surfing, gaps that will be filled over time, with the implementation of subsequent coastal projects that take into account the visions and dreams of surfers.

Surfing brings many benefits and opportunities, among which there is certainly the joy of contact with the element that is the ocean, or perhaps an element that cannot be mastered, but can be understood and, in harmony with its nature, managed for the benefit of many.

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