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The role of tourism in the development of the city

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Abstract

The aim of the article is to present the importance of tourism in the development of the city, which is an area with significant tourist traffic. Particular attention was paid to the fact that the increasing number of tourists generates increasing intensity of the flow of people, goods and information within the city. This favours the emergence of difficulties in city logistics. The need for research that aims to design and implement solutions to these problems was indicated.

The research involved three cities considered to be attractive for tourists, located in two Polish coastal regions, i.e. Świnoujście and Szczecin (West Pomeranian region) and Gdańsk (Pomeranian region). The first of these cities is also a health resort. The analysis of tourist traffic in these cities concerns the years 1995–2016. Based on it, the forecast was made until 2021. The source of statistical data was the Local Data Bank of the Central Statistical Office. The research procedure and the structure of the article were subordinated to meeting the research objective.

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1. Introduction

Tourism can influence the development of a given area in a multi-faceted way. The tourist reception areas are subject to changes which result not only from the development of their tourist function. Both positive and negative impact of tourism is observed mainly in the sphere of economic life, as well as the socio-cultural and natural environment (Gaworecki, 2010). The consequences of tourism development occur on the scale of the whole country, region (or smaller territorial unit), as well as a single city or town. It depends on the concentration of tourism. In addition, the links between tourism and the development of a given area are often characterized by spatial differentiation.

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Temporary migrations of people outside their place of residence, resulting from socially conditioned needs, identified by various types of motivation, are referred to as tourism (Kurek & Mika, 2008). It can also be described more broadly as the phenomena and effects of spatial movement of people during tourist travels (Mazurski, 2006). In order to meet the tourist needs, a tourist (generating tourist demand) must move to a place where elements of tourist supply are located.

As a participant in tourism, a tourist expects his needs related to tourist trip to be met. Therefore, there is the problem of the fulfillment of the demand for certain goods and services. However, the creation of conditions for tourism in a given area and the creation, provision and promotion of a tourist offer are offered by units or a set of tourist market units referred to as a tourist destination (Panasiuk, 2014). It is a concept much wider than what is commonly understood as a tourist area, which according to Panasiuk (2014) is the physical place where tourist activities operate that constitutes the space of the tourism market.

The activity of individual entities for tourists indirectly contributes to the generation of possible negative effects of the impact of tourism on a given area, such as the socio-cultural and natural ones already mentioned. The range of their occurrence may include both the entire region and individual cities/towns. The implementation of individual services generates very diverse logistic and organizational dependencies that result from their specificity. Usually, this forces small orders and frequent “on time” deliveries which contribute to their low efficiency (Iwan, 2013) and causes an increased number of vehicles involved (Łapko, 2014). This is often the case in limited areas, e.g. small tourist destinations or the strict centers of major cities. Consequently, flows of people, goods and information take place in every city, regardless of their function. In Polish cities, the most common are four characteristic structures resulting from the dominant function, i.e. health resort, industrial and spa, industrial and tourist, and tourists function (Kijewska, 2016). Pointing to the close relationship between tourism and effective transport, there should be pointed out the impact of tourist traffic on city logistics. This is related to the growing (mostly seasonal) intensity of the flow of goods and the movement of people in order to reach the destination and move within it during the stay.

The aim of the article is to present the importance of tourism in the development of the city, which is an area with significant tourist traffic. The research procedure and the structure of the article were subordinated to meeting the research objective. The research involved three cities considered to be attractive for tourists, located in two Polish coastal regions, i.e. Świnoujście and Szczecin (West Pomeranian region) and Gdańsk (Pomeranian region). The first of these cities is also a health resort, which is of additional importance when organizing the flow of people, goods and information on its territory. The analysis of tourist traffic in these cities concerns the years 1995–2016. Some elements of econometric modeling were used. On the basis of the time series

(1995–2016), trends (linear and parabolic) were estimated. However, as a result of their extrapolation, forecasts were made until 2021. The source of statistical data was the Local Data Bank of the Central Statistical Office. In addition, theoretical and analytical observation in the field of subject literature and online resources was made.

2. Tourism in Świnoujście

Świnoujście is a poviat city with the status of a health resort. Having the status of a health resort is an additional asset of a tourist town. Pursuant to the Act of 28 July 2005 on health treatment, health resorts and health protection areas and health communes (Journal of Laws of 2005, No. 167, item 1399, as amended), a health resort is an area in which health treatment is carried out, separated for the purpose of using and protecting natural medicinal resources located in its area. Meeting the appropriate conditions referred to in the Act, the area is given the status of a health resort. Its boundaries coincide with the administrative division, designating municipalities, cities or auxiliary units of municipalities (e.g. village councils).

More and more tourist accommodation establishments are expanding their offer with services in the field of biological regeneration (including spa and wellness). The provision of this type of services is increasingly common in hotel facilities. According to Prochorowicz and Sammel (2013), as an additional offer, it also occurs in agritourism farms, which is a novelty of recent years. In addition, it is not without significance for tourists that the area offers health treatment (Prochorowicz, Sammel 2013). These are the reasons why more and more tourists use accommodation establishments in Świnoujście.

Figure 1 shows the number of tourists staying at tourist accommodation establishments in Świnoujście in the years 1995–2016, which increased by almost 323% in this period. This is a significant increase compared to the

entire West Pomeranian region, which recorded the increase of about 109%. A clear increase in the number of tourists took place in 2012–2016. In addition, trends in the linear and parabolic form were estimated. Based on their extrapolation, forecasts were made until 2021. According to statistical conditions, the parabolic trend is more reliable (it has a higher level of adjustment to real values), assuming that in 2021 there will be an increase of around 28% compared to 2016. However, this variant may seem overly optimistic due to the limited space of the city. And taking into account the strong seasonality of tourism, attention should be paid to the unusual load of this area during the summer months. It intensifies organizational problems of the flow of people and goods resulting from tourist service.

Świnoujście, apart from the health (or spa and tourist) function, is a port city where one of the Polish seaports of basic importance for the national economy is located. International passenger traffic in Świnoujście is growing year by year and is the highest in comparison to other Polish ports. Not all passengers are tourists, and therefore additional flows are generated alongside those resulting from the health and spa function of the city. In addition, in the port of Świnoujście, there is an international maritime turnover of cargoes (loading, unloading, transit). It is not as intense as in other ports, however, taking into account the size of the city, the handling of this cargo requires the use of many solutions by the city.

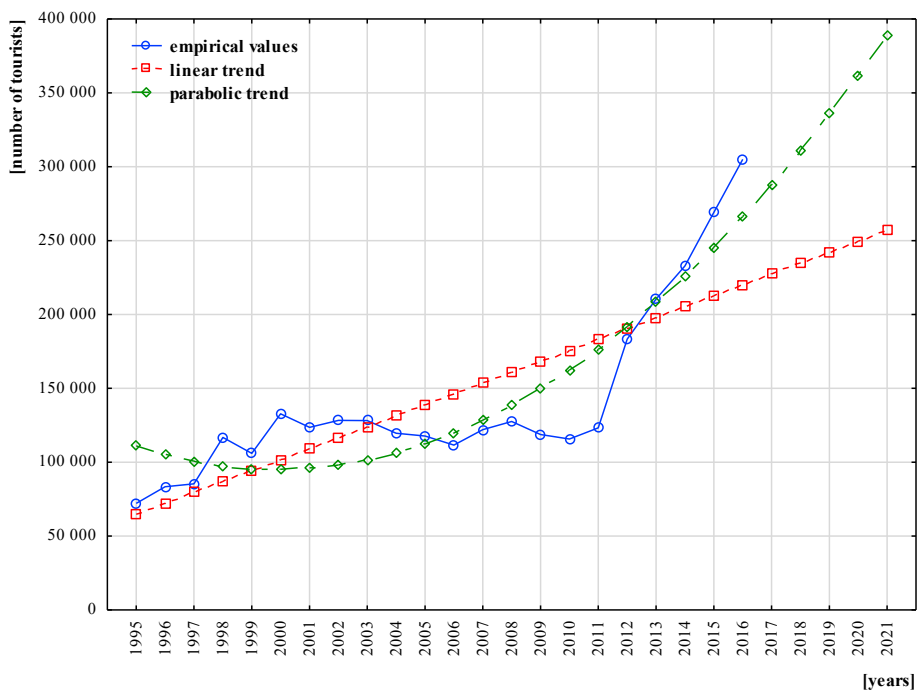


Fig. 1. Tourists staying at tourist accommodation establishments in Świnoujście in the years 1995 – 2016 and forecast to 2021. (Source: own study based on: Local Data Bank, Central Statistical Office, Poland, bdl.stat.gov.pl/BDL – 13.04.2018)

3. Tourism in Szczecin

Szczecin is a poviatic city and at the same time the capital of the West Pomeranian region. In comparison with Świnoujście, it is a larger city with more tourists staying in its accommodation base. In 2016, it was about 15% of all those choosing overnight stays in the West Pomeranian region. However, it has a smaller number of accommodation establishments. In both cities from 1995–2016 there was an upward trend in the number of beds, however, in Świnoujście a higher dynamics of changes was observed. A similar dependence took place in terms of the number of tourists staying at tourist accommodation establishments in the same period in both cities. In Szczecin, an increase of 20% was recorded, which is significantly lower than in Świnoujście, and also in the entire region. Analyzing the

changes in the number of tourists in the analyzed period (Figure 2), it should be noted that there were significant fluctuations. The volume, which was recorded in 1997 (similar to that in 2016), clearly decreased and in 1999 was the smallest in the whole period. Then the changes were not so significant and in 2015 the highest value was achieved among the analyzed years.

Fluctuations in the number of tourists staying at tourist accommodation establishments in Szczecin made it difficult to estimate trends. In the case of a parabolic function, statistical conditions (non-validity of the structural parameters of the model) were not obtained. However, for the linear trend an unsatisfactory level of adjustment to the real values was obtained. However, Figure 2 presents the results of this estimation, although it should be treated as indicative. According to this, in 2021 there may be an increase of around 8% in relation to 2016.

The case of Szczecin is different than Świnoujście. It is a city where tourism does not play such a significant role for its functioning. It is an area that is not located by the sea. In 2016, around 88% of tourists staying in Szczecin chose hotels and similar facilities. Staying in such establishments is usually shorter and is often associated with the so-called business tourism. However, the development of this form of tourism requires a very developed hotel base, as well as various types of conference centers. The development of hotel facilities has a positive impact on the city's development (Hącia, 2017). Their growing significance means that they assume the role of the so-called development locomotives (in line with the concept of sectoral growth poles (Zaucha et al., 2015) Unfortunately, in Szczecin there are still too few accommodation establishments of this type, especially in hotels with the highest categories, i.e. there is potential for development in this area.

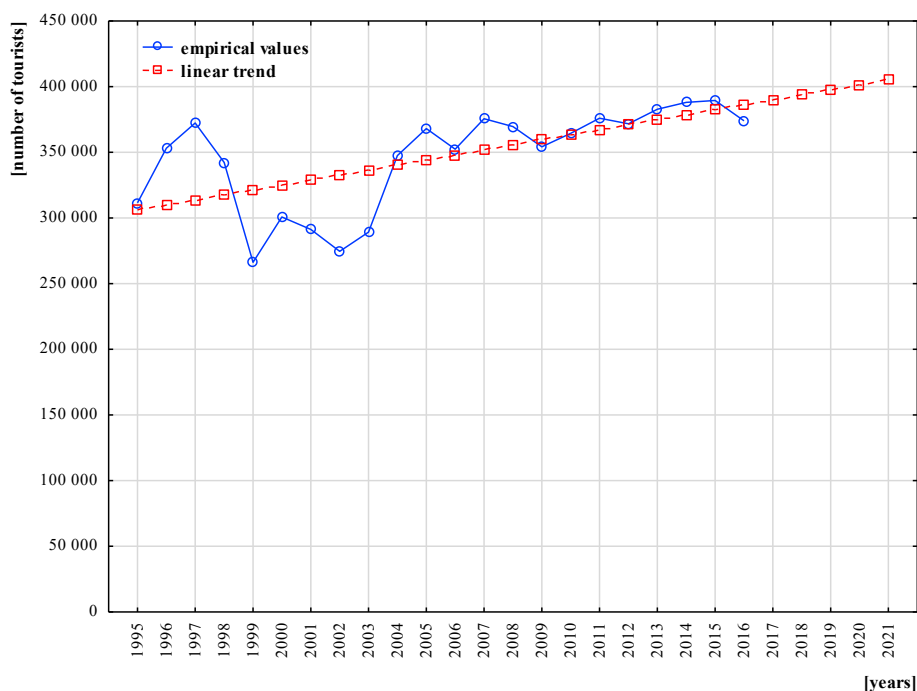


Fig. 2. Tourists staying at tourist accommodation establishments in Szczecin in the years 1995 – 2016 and forecast to 2021. (Source: own study based on: Local Data Bank, Central Statistical Office, Poland, bdl.stat.gov.pl/BDL – 13.04.2018)

Szczecin is also a port city with a seaport of key importance for the national economy. Together with Świnoujście it forms the Szczecin–Świnoujście port complex. For infrastructure reasons, the Port of Szczecin plays a negligible role in international passenger traffic. International cargo turnover (loading, unloading, transit) takes place on its territory, however, on a smaller scale than in Świnoujście. Nevertheless, due to the location of the port, also in Szczecin it is necessary to apply solutions in the field of city logistics.

4. Tourism in Gdańsk

Gdańsk is a powiat city, the capital of the Pomeranian region, and also part of the so-called Tri-City. All this means that this area, while developing its metropolitan functions, also attracts significant tourist traffic. Sopot belonging to the Tri-City is a health resort, which is also not without significance. In 2016, as many as 33% of tourists staying at accommodation establishments in Pomeranian region chose Gdańsk. However, by looking at the Tri-City jointly, this share amounted to 49%. Due to the coastal location, this area is described as very attractive for tourists (and not only because of the health and spa tourism).

Figure 3 shows the number of tourists staying at tourist accommodation establishments in Gdańsk in 1995–2016, which increased by approximately 231% in this period. This is a significant increase compared to the whole Pomeranian region, where about 150% increase was recorded. After stabilization in the years 1998–2003, annual increases occurred in subsequent years. In the case of Gdańsk, for the estimated trends (both linear and parabolic), higher levels of matching to real data were obtained than in Świnoujście and Szczecin. Especially high for the parabolic figure, which explains in 96% the changes in the number of tourists staying at tourist accommodation establishments in this area in the analyzed years. According to the forecast, in 2021 this figure may increase by almost 39% in relation to 2016. This is a variant that is difficult to determine as optimistic due to a significant increase in a relatively short period of time. Admittedly, there is an upward trend in the size of the accommodation establishment base, however, the city area has its limited absorption and also fulfills other non-tourist functions. In addition, taking into account the specificity of the Tri-City, tourists staying in Gdynia and Sopot also generate flows of goods and people within the whole area.

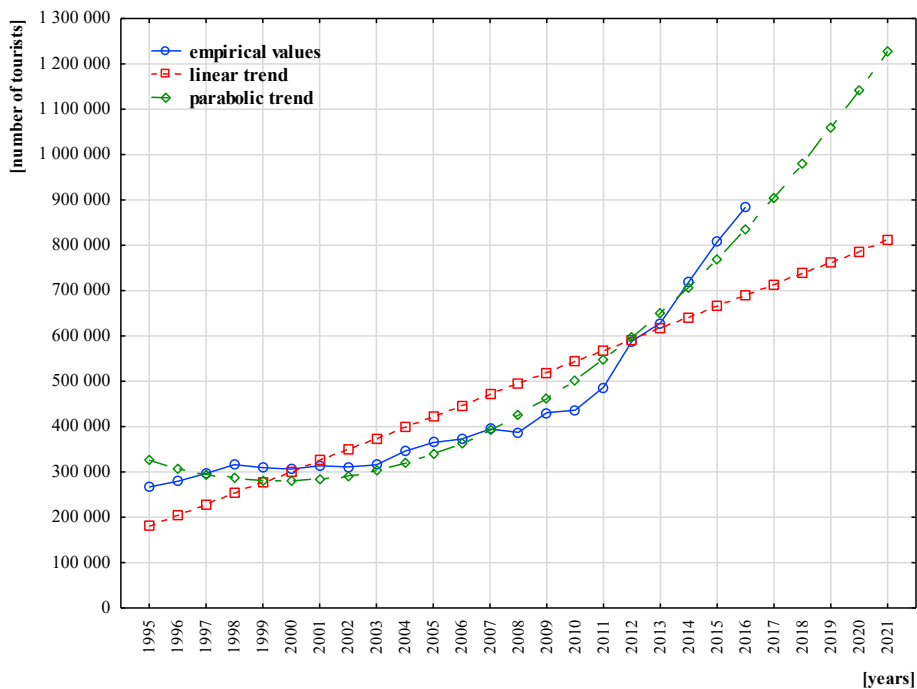


Fig. 3. Tourists staying at tourist accommodation establishments in Gdańsk in the years 1995 – 2016 and forecast to 2021. (Source: own study based on: Local Data Bank, Central Statistical Office, Poland, bdl.stat.gov.pl/BDL – 13.04.2018)

Gdańsk is also a port city in which the port of primary importance for the national economy is located. In terms of international passenger traffic, it does not play such a significant role as Świnoujście. Gdynia, which is a part of the Tri-City, is characterized by a much larger passenger traffic. However, passengers using the port of Gdynia often

move to Gdansk or Sopot. In Gdansk, the national passenger traffic plays a greater role. In addition, the port faces the largest international cargo turnover in Poland (in three relations). It is not without significance on the flows of goods and information within the city.

5. City logistics in solving problems resulting from tourist traffic

The development of cities over the years is the result of many processes taking place both in a given area and in its surroundings. The function of a given city determines the direction of its development. However, due to the varying intensity of the development processes of the area and its surroundings, the implementation of this function is changing. The effects of this can have a different impact on the quality of life of residents. To eliminate the negative impact, various activities in the field of city logistics are undertaken. In the case of areas with increased tourist traffic, particularly affected by seasonal nature of tourism (seasons, days of the week), aspects of handling tourists may apply. Reconciling this with simultaneous care for the quality of life of residents is an organizational, infrastructural and scientific (R&D) challenge. The size of the area, which is the tourist destination, is related to the problems that may arise in the process of handling tourist traffic and city functioning.

According to a study conducted by (Kijewska, 2016), measures are taken in cities such as Szczecin and Gdańsk to eliminate transport problems of an organizational and infrastructural character. The first group includes: promotional campaigns for sustainable transport, application of the so-called time windows in deliveries, special parking spaces for loading and unloading operations. In Gdańsk, additional extended environmental protection zones, city logistics planning and limited access to selected urban areas were introduced. In Szczecin, the study on residents' opinion to the introduction of a ban on entering the center by combustion vehicles is undertaken (www.gs24.pl, 9.01.2018). As part of infrastructure measures, these are: intelligent urban traffic management systems, environmentally friendly vehicles, rail transport and waterways for deliveries, telematics logistic tools, noise reduction solutions, alternative delivery systems (e.g. parcel machines). In Gdańsk, the trans-shipment hubs on the outskirts of the city were also introduced (Kijewska, 2016).

The presented activities indicate that the problem of city logistics is increasingly noticed. A few years ago, there was an opinion about not treating these issues on the same level as the others in developing the socio-economic system in cities. For example, in the case of Gdańsk, the problems related to the cargo delivery system were identified as a result of the growing demand for consumer goods (Kaszubowski, 2012).

Attempts to counteract the effects of many years of inefficiency in improving urban logistics are being undertaken all over the world. The situation in big cities looks different. However, the proposed concepts for solving existing problems are similar, only differ in the range of application (Požani & Stead, 2015). Therefore, attempts are made to adapt the concepts of current and anticipated conditions in a given city (Muñuzuri et al., 2012).

Problems resulting from the increasing flows of goods and persons are being attempted through the use of various types of models to improve traffic in cities. An example can be the use of such a solution on roundabouts. According to research carried out by (Małecki & Wątróbski, 2017), the use of such a solution allows obtaining better results by up to 15.3%. In addition, it is observed that solutions facilitating the organization of urban flows can help reduce the negative impact of transport on the environment (Małecki, 2016).

Undertaking measures to solve the problems of the increasing intensity of the flow of goods, people and information in cities requires conducting a lot of research, including basic, pilot and implementation research. Many projects that are carried out in Polish cities are co-financed by the European Union. In recent years, two international projects clearly related to the problems of freight transport have been implemented, i.e. C-LIEGE and GRASS. As part of the first of these projects, pilot projects were carried out in six European countries (Kijewska, 2016). In Szczecin, the solution of unloading bays for supply vehicles was implemented, preceded by a test of its effectiveness (Iwan & Małecki, 2017; Iwan et al., 2018). Moreover, the analysis of the effectiveness of applying solutions from the intelligent transportation system (ITS) group in Szczecin was carried out (Małecki, Iwan & Kijewska, 2014). Many years of research (Jamroz & Oskarbski, 2009; Oskarbski & Kaszubowski, 2016) were preceded by the implementation of one of the most comprehensive ITS solutions in Poland, i.e. the TRISTAR system – Integrated Traffic Management System in Gdynia, Gdańsk and Sopot. Designing, researching and implementing measures that solve transport and logistics problems in cities also needs a methodological basis. Therefore, there is a need to apply various research techniques to support this process, e.g. (Wagner, 2016; Nesterova & Quak, 2016). On the other

hand new innovative solutions are needed, e.g. alternative energy sources in delivery vehicles (Iwan, Kijewska & Kijewski, 2014) or electric motors in boats (Łapko, 2016).

6. Conclusions

Tourism plays an increasingly important role in many aspects of human life. On the one hand, it is a way of spending free time, including relaxation - for tourists. On the other hand, satisfying their needs requires the involvement of many entities from various economic sectors. The resulting handling of tourist traffic causes flows of people, goods and information. In tourist destinations there is a strong concentration of this phenomenon. In the case of cities that offer tourism function as one of several other functions, it is necessary to coordinate these flows in order to minimize the negative effects.

In the cities presented, an increasing number of tourists were pointed out, especially in Gdańsk and Świnoujście. According to the forecasts presented, these numbers will increase resulting in greater congestion, noise level, pollution etc. Due to the importance of the problem and despite the permanent search for its solution, it is still an area that is not fully explored. That is why all initiatives undertaken within international projects are valuable enabling the implementation of good practices in the field of city logistics from other European cities with similar problems. The development of Polish cities should be supported in such a way as to minimize the negative impact of industry or tourism on the daily functioning of their residents.

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