DIRECT AND INDIRECT IMPACT OF NAUTICAL TOURISM ON THE DEVELOPMENT OF LOCAL ECONOMY IN WEST POMERANIA ON THE EXAMPLE OF DARŁOWO MUNICIPALITY

Piotr Nowaczyk
West Pomeranian University of Technology

ABSTRACT
The aim of the article is to determine the direct and indirect benefits from the development of nautical tourism in the West Pomerania. The study was founded on the economic base theory, which attributes local development to exogenous factors. In accordance with its premises, the direct benefits include the initial sailing spendings. The lack of a comparative base made it impossible to determine their exact significance for the economy. The calculated tax revenues – as one of the categories of indirect benefits – comprised a small part of the local budget, but with the income of the port operator they allowed to cover the investment outlays for the development of sailing infrastructure. Qualitative analysis confirmed that the majority of indirect benefits accumulates in the local economy. Sailing tourism may become an important aspect in the development of the West Pomerania’s local economy. This, however, will require further development of sailing infrastructure and broadening the scope of available services.

Key words: sailing infrastructure, yacht marina, local development

INTRODUCTION

In Western Europe, sailing tourism is becoming more and more popular [Jugović et al. 2011] owing to changes in the contemporary tourism trends such as an increased interest in forms of active leisure, moving away from mass tourism towards individual tourism, and an increased demand for various forms of qualified and specialized tourism [Fache 2002, Meyer 2005, Babińska 2013]. In recent years, in Poland one can observe an increased interest in sailing, the main reasons for this situation being – apart from general tourism trends – the liberalization of laws concerning sailing and international traffic, the increasing wealth of the Polish society, and the intense development of the infrastructure [Heflich 2011, Łapko 2015].

Sailing tourism is a key element of local development [Luković 2012, Durydiwka 2013], especially important for port municipalities. It allows to fill in an economic gap resulting from the regress of the Baltic fishing industry [Kaup 2010, Zieziula and Nowaczyk 2011].

The aim of the following article is to identify the direct and indirect benefits from the development of sailing tourism in West Pomerania. With this aim in mind, the answers to the following questions were attempted:

1. What benefits for the local economy are generated by sailing tourism and with the use of which research methods can they be identified?
2. What conditions are conducive to the development of sailing tourism and at the same time stimulate the development of local economy?
Due to the amount of research material available and the limitations in access to statistical data, the study was narrowed to the yacht marina in Darłowo, which was constructed as part of the project called The West Pomeranian Sailing Trail – a network of tourist ports of West Pomerania. However, in most seaside municipalities the conditions for the development of sailing are similar. Therefore, the conclusions from this study can very likely be applied to all of them.

It should be noted that in both national and foreign literature on the subject the economic aspects of the development of nautical tourism have not been comprehensively researched yet [Mańkowski 2008, Łapko 2015]. The following article is an attempt at bridging the resulting gap at least to some extent.

In the article, both primary and secondary sources of information were used. For this purpose, literature on the subject and numerous publications and scholarly studies have been consulted. Research was conducted in the form of in-depth interviews with the representatives of small seaports. Information provided by the manager of the Maritime Port Authority in Darłowo was especially valuable.

IMPACT OF TOURISM ON THE DEVELOPMENT OF LOCAL ECONOMY IN THE LIGHT OF THEORIES

Places rich in tourist attractions often attribute their development to the servicing of tourist traffic, i.e. the export of a tourist product [Butowski 2010]. It is especially visible in smaller settlement units with less diversified economy and limited development possibilities, which are visited by tourists from larger centers – the key areas of consumption of tourist services [Blair 1991]. Therefore, many authors believe that the development of tourism and tourist centers is mostly conditioned by exogenous functions [Dziewoński 1971, Maik 2000, Golembsi 2009].

Theoretical concept emphasizing the importance of external factors in the development of spatial economy is the economic base theory. It is believed to have been created by Sombart [1907], and adjusted to the conditions of contemporary economy by Hoyt [1954]. Although is it among the oldest theories, it remains to be one of the most popular concepts explaining local development [Grosse 2002].

In accordance with the economic base theory, the main factor stimulating the economic processes is the export of goods and services. The subject of export is the so-called economic base, i.e. goods and services in the productions and provision of which a territorial unit specializes. Thanks to export revenue – through multiplier effects – almost all sectors of local economy benefit from it.

The economic base theory can be successfully applied to tourism – a sector of economy rarely used in local development – due to its complex and multifaceted character. Panasiuk [2007] points to the penetration of tourism into most areas of economic and social life. In a similar tone, Meyer [2008] states that tourist economy manifests itself in all spheres of management. Gaworecki [2004] emphasizes tourism’s power of influence over other sectors of economy, such as production, division, exchange, and consumption of goods and services. For Golembsi [2009], tourism is a true rarity, as its effects are comparable to the effects of investments. Tourists enter additional money into the economic cycle (independent of the previous financial flows) which circulates fast in the economic system. The nature of tourist spendings also plays a large role, since they tend to be above average, often unplanned and decided on impulse. Additionally, the areas of tourist reception – especially those less developed – are often very popular with foreign tourists, whose spendings are higher than those of local tourists, which further influences the development of local economy [Łapko 2015].

In terms of income, the power of impact tourism has on the development of a tourist area is determined by a multiplier. It is used to measure the total effects of the initial tourist expenses within a given area, as a result of its penetration into the economy [Medlik 1995]. The multiplier model includes direct, indirect, and induced effects [Hall and Page 2002, Milewski 2007]. The direct (or primary) effect is connected with tourist expenses whose addressees are business entities directly involved in the tourist traffic service. The indirect effect – which, along with the induced effect constitutes a secondary income impulse – includes companies which supply the entities directly involved
in the tourist traffic service. The last, induced effect, consists in an overall increase in expenses of people hired in the direct and indirect tourist traffic services. An important element of tourism’s secondary impact on local economy are the taxes paid to local budgets by the business entities servicing the sailing traffic.

The importance of tourism for the local economy may vary [Milewski 2007, Kosmaczewska 2014]. It depends mostly on the scale of tourism traffic, that is on the number of tourists, the time of their stay, and the transactions made. Nonetheless, the amount of tourist expenses does not always translate into the development of local economy, which is reflected in the value of the tourist multiplier. So far not much research has been done on the strength of penetration of tourist expenses into the local economy. On the basis of available data [Clement in: Lazarek 1999, WTO in: Mika 2012], it can be concluded that the multiplier value in economically developed regions, where own resources are enough to develop an economic base, can be in the range of 2–3, which means that each monetary unit introduced into the economic cycle (direct effect) additionally generates from one to two monetary units in further economic cycle (indirect and induced effect). On the other hand, in less developed regions the multiplier value is usually lower, even below 1. Such areas do not generally have their own, endogenous resources to satisfy the demand of the tourists. Then, the development of tourist assets by external capital could potentially lead to the “leakage” of profits outside the area of tourist reception. An extreme example of this is creating tourist enclaves, oriented at servicing exclusive forms of tourism. As a result, connections with local economy are even fewer, because services for elite tourists require appropriate personnel and means of supply of adequate quality, the source of which is usually the country of the capital’s origin [Oppermann 1993]. In the case of limited development opportunities of tourist areas, the concept of economic base assumes the possibility of initiating their development as a result of external intervention, e.g. through improving transport accessibility or creating tourist infrastructure. The participation of local businesses in the realization of the aforementioned investments could additionally strengthen the development of local economy [Malizia and Feser 1999].

In literature on the subject, a number of factors are mentioned which determine the development of tourist localities [Brohman 1996, Meyer 2008, Golembiski 2009]. Among the most important ones are: the number of transactions made in the servicing of tourist traffic, the marginal propensity to consume on the part of the local community, and the investment demand of the local economic sector.

It is assumed that a bigger number of transactions has a more positive effect on the development of the local economy. Therefore, the tourist offer needs to be diversified and based on small and medium-sized businesses, which have a greater impact on the formation of network of mutual connections. The marginal propensity to consume depends primarily on the income level. As a rule, the lower the income level, the bigger propensity to consume – and the lower to save money. Therefore, tourist spendings among the less wealthy section of society should usually result in stronger development impulses. On the other hand, the investment demand depends mostly on the prognoses as to the formation of demand for tourist services of businesses. Consequently, the anticipated increase in tourist traffic should result in a higher tendency to expand the tourist base.

Summing up, it should be concluded that the development of tourist space is determined by numerous factors. Both the income level and the multiplier value are dependent not only on tourist expenses. In order for the currency to stimulate the local economy, the servicing of tourist traffic should be handled by local businesses, integrated through a network of connections with the local socio-economic environment. The tourist offer has to comprehensively satisfy tourist needs, and the income obtained from tourism should find an outlet in consumption and investments expenditures, injecting money into the local economy.

IDENTIFYING THE BENEFITS FROM THE DEVELOPMENT OF SALING TOURISM ON THE EXAMPLE OF DARŁOWO MUNICIPALITY

In accordance with the definition of tourist multiplier, the direct effect measures the initial, primary expenses of tourists. Estimating their amount requires access to
data on the scale of sailing traffic. The port in Darłowo registers only calls at the port, and from the available data it can be concluded that in the years 2011–2016 the frequency of the calls rose (Table 1). An especially intense increase in sailing traffic was observed after a new yacht marina was put into use in 2013 [Nowaczyk 2015]. The investment was largely funded from EU funds, which confirms the importance of external intervention in the local development.

In the year 2016, 562 yachts called at the marina. On the basis of conducted research it was determined that the average time of stay of a vessel in port was four days. There were three sailors per vessel. In total, the yacht marina in Darłowo could have been visited by 1,686 sailors, with each one staying in the port for four days (Table 2).

Having determined the number of sailors, their expenses were estimated. The estimates were solely based on the available statistical data. They include tourist expenses in general (not only of sailors), mainly on: transport, accommodation, food and drinks in cafés and restaurants [MSiT 2007a, b]. A question should be asked about how representative those estimates are for the sailors using the port in Darłowo. Certainly sailors spend less on transport and accommodation, since – usually – they arrive at the port in their own yachts and often sleep on them. However, taking into consideration the significant amount of time that the yachts stay in the port (four days), the sailors must purchase food in local stores. Sailors – like other tourists – take advantage of the local seaside attractions, which entails expenses. On the other hand, the available statistical data do not include tourist expenses specific to the sailors from the Darłowo marina: renovations of vessels, winterizing, yacht charters1. According to the author of this article – an opinion confirmed by experts – the expenses of sailors in the Darłowo port are certainly not smaller than the expenses of an average tourist. Therefore, they can be considered representative.

Due to the difference in size between the expenses of local and foreign tourists, calculations were performed separately for both aforementioned groups. Additionally, the estimates were increased by the amount of the port fee charged by ZPM Darłowo. It is another element not included in the statistics. As a result, in 2016 the expenses of sailors in the Darłowo municipality could amount to PLN 1,517. The lack of comparative base (e.g. in the form of information on total tourist expenses or the value of product manu-

---

### Table 1. Number of yachts calling at the Darłowo seaport in the years 2011–2016

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of calls</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>200–250</td>
</tr>
<tr>
<td>2012</td>
<td>445</td>
</tr>
<tr>
<td>2013</td>
<td>533</td>
</tr>
<tr>
<td>2014</td>
<td>672</td>
</tr>
<tr>
<td>2015</td>
<td>562</td>
</tr>
<tr>
<td>2016</td>
<td>562</td>
</tr>
</tbody>
</table>

Source: Own study on the basis of data from ZPM [2017].

### Table 2. Estimating the amount of expenses of sailors using the yacht marina in Darłowo in the year 2016

<table>
<thead>
<tr>
<th>Number of calls divided into</th>
<th>Number of calls</th>
<th>Time of stay in the port (days)</th>
<th>Number of sailors per vessel</th>
<th>Expenses (thous. PLN)</th>
<th>Proceeds from port fees collected from sailors (thous. PLN)</th>
<th>Expenses in total (thous. PLN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-----------------------------</td>
<td>----------------</td>
<td>--------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------</td>
<td>-----------------------------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td>213</td>
<td>349</td>
<td>4</td>
<td>3</td>
<td>250</td>
<td>1 081</td>
</tr>
</tbody>
</table>

Source: Own study on the basis of data from MSiT [2017a, b], ZPM [2017].

1 In 2016, tourists had four yachts at their disposal. The cost of charter per day was PLN 100. It was higher than the statistical expense of a local tourist assumed for the purposes of estimation.
factured in the Darłowo municipality) makes it impossible to determine the importance of the estimated value for the local economy. It can only be noted that in 2016, sailor expenses could provide employment for at least 31 persons [GUS 2017]. At that time, 1,793 persons were employed in the Darłowo municipality [US 2017]. Those working in nautical tourism services constituted 1.7% of all the employed. There were 800 persons registered as unemployed in the municipality, which makes the unemployment rate 9.3%. Employees in sailing tourism – in case of unemployment – could increase the unemployment by almost 4% or increase the unemployment rate by nearly 0.4%. If perceived through the prism of local employment, sailing tourism was not an essential element of the local economy. However, with limited opportunities for employment or an increase of unemployment as a result of a progressive regression of fishery, sailing tourism provided valuable workplaces.

After calculating the direct effects, the indirect and induced effects had to be estimated, i.e. the secondary impact of sailing on the local economy. Due to statistical and scientific limitations, the calculations were narrowed to estimating tax revenues, and a qualitative analysis was conducted in relation to the key element without which the development of sailing tourism would not be possible – the yacht marina.

Estimating the amount of tax revenues was not an easy task. The difficulties resulted from the fact that the revenues from sailing activity were not treated separately in the city budget. On the other hand, the activity of numerous business entities was not limited to services for sailing tourism. Due to the aforementioned factors, the tax revenues were estimated indirectly. On the basis of available research results [Pluciński 2001, Matczak 2016] an assumption was made that the participation of tax revenues of the port sector in the budgets of port cities averaged at about 4%. In the next step, the importance of sailing activity in the operations of the Darłowo port had to be determined. For this purpose, the share of port fees charged in the port in the income of ZPM Darłowo was calculated. In 2016, this share was 15%. This means that the taxes paid by the business entities connected with sailing activity constituted approximately 0.6% (15 out of 4%) of the city budget. In 2016, the tax revenues in the Darłowo municipality were PLN 62,894,000, which means that the income from sailing activity could have been PLN 377,000 (Table 3). The estimated value is significantly smaller than sailors’ expenses, but it should be taken into account that tax revenues constitute only one of the elements of secondary impact of sailing tourism on the local economy. Moreover, municipalities only partly participate in some of the taxes collected from business entities. An exception to the rule is the property tax, 100% of which goes to the local budget [Matczak 2016].

While estimating the tax revenues from sailing activity, it should be questioned whether a yacht marina is a profitable venture for the municipality in the first place. The investment outlays of Darłowo on the construction of the marina were PLN 500,000. Considering the benefits for the municipality exclusively in the form of tax revenues obtained in 2016 and in the previous years of the operation of the facility, i.e. 2013–2015, it can be safely assumed that the investment proved profitable [ZPM 2017].

While initiating the qualitative analysis of the secondary impact of the yacht marina on the local economy, it should be noted that the port did generate profit for ZPM Darłowo. In the years 2013–2016, cumulative net income was over PLN 250,000 [ZPM 2017],

Table 3. Estimating income from sailing tourism in the budget of Darłowo in 2016

<table>
<thead>
<tr>
<th>The share of tax revenues of the port sector in the budgets of port municipalities (%)</th>
<th>The share of tax revenues from sailing activity in the budget of the Darłowo municipality (%)</th>
<th>Income of the Darłowo municipality (thous. PLN)</th>
<th>Income from sailing tourism in the local budget (thous. PLN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0.6</td>
<td>62,894</td>
<td>377</td>
</tr>
</tbody>
</table>

Source: Own study on the basis of data from Pluciński [2001], ZPM [2007], Matczak [2016].
Part of the port fee charged on the sailors is spent on salaries for the employees who reside in the municipality. It should be expected, therefore, that their expenses will boost the local economic circulation (the induced effect). The open question remains: what part of salaries will be consumed (marginal propensity to consume) and to which business entities will the money go? Statistical offices do not collect data on the average disposable income per resident in the Darłowo municipality. They do have data on the income in a group of towns comparable in size [GUS 2017]. It is close to the national average. However, the Darłowo municipality is among tourist towns where the income of residents is on average higher [Durydiwka 2013]. Having taken into account the above factors and after the analysis of available statistical data, we can risk an assumption that the propensity to consume of the Darłowo residents could have been about 70%. The major part of the extra money has therefore been consumed.

Will the funds go into the local economic circulation? Certainly not all of them. The most important item in the structure of household budgets are the food and non-alcoholic beverages expenses. In the Darłowo municipality, apart from small retail outlets, there are discount stores characterized by a higher turnover of goods. They must be the main beneficiaries of consumer spendings. There remains the question of the allocation of (potential) profits and the discount stores' sources of supply in food products [Sawicka 2010]. A similar situation applies to other – more important – household expenditure items related to, e.g. use of premises, energy carriers, and transport; only a part of these expenses shall enter the local economic circulation.

It should be noted that the development of nautical tourism can contribute to an increase in the investment activity of Darłowo residents, a phenomenon which has been observed. The source of financing of the objects dedicated for sailors could be the unconsumed part of the extra income from the initial tourist expenses. For the local authorities and the port operator (who do notice the increasing interest of the society in active forms of leisure), sailing tourism constitutes a development priority, and it is the estimates as to creating demand for tourist services which mainly determine the investment expenditure of enterprises.

There are also other expenses incurred by ZPM related to the operations of a yacht marina, such as periodic review of the infrastructure, regular repairs, removal of waste from the yachts. The equipment on the yacht marina is continually expanded with elements such as a recreational pavilion for sailors and a hall for yachts to winterize (2015). Local business owners offering yacht charters operate on the premises of the port. The M&W Darłowo shipyard handles repairs and maintenance of sailing equipment, while local businesses run gastronomic activities. The majority of the services mentioned are offered by local subjects [Hernik and Ściana 2014], which means that the income they generate feed the local economy.

Having considered all of the above and based on research on the value of the multiplier, we might risk a statement that the secondary impact of sailing tourism could be at least comparable with the primary impact, that is the value of expenses at the level of PLN 1,517,000. This supposition was based on the analysis of the local economy characterized by: the local residents’ high propensity to consume, the advantage of local entities in handling the sailing traffic services, and the investment activity of the local entrepreneurs.

POSSIBILITIES OF FURTHER DEVELOPMENT OF NAUTICAL TOURISM IN WEST POMERANIA

From the conducted analysis it can be concluded that sailing tourism has a positive impact on local economy, so it is worth to invest in its development. All the more so, as the interest in local sailing tourism is increasing, which is a result of the increasing wealth of the society. The Baltic Sea basin has an enormous sailing potential. Taking advantage of the opportunity

2 Are the profits transferred abroad or reinvested in the local economy.
3 Do the retail stores purchase food products from local or external producers.
presented by nautical tourism will require adjusting the service offer to the expectations of sailors [Meyer 2010].

The value of the tourist multiplier depends on the size of tourist expenses and the possibility of them being absorbed by the local economy. Utilizing the growth of interest in sailing will require increasing the number of berths for yachts and expanding the range of provided services. Due to the regression of Baltic fishery in the small ports of West Pomerania, there are reserves of port areas which can be utilized for the purposes of sailing tourism. In terms of the range of provided services, in the first place the typically sailing infrastructure should be supplemented with a stable – preferably all year long – accommodation, catering, and recreational base. In some ports there are no berth equipped with power and water intake, which is a major impediment for sailors traveling in their own means of transportation, but not owning a yacht. Therefore, sailing services should be complementary: along with the availability of berths, yacht charter possibility should be provided.

The fact that the population aging process is deepening, increases the percentage of older people participating in sailing, which can currently be observed in the countries of Western Europe [Wassertourismus 2012]. More and more often, they travel on motor yachts. Therefore, fuel distributors should be available in ports. It is often entire families who sail on yachts, so attractions for children, such as playgrounds, should also be included. An extremely important factor for the sailing community which increases the attractiveness of yacht ports are sailing events [Cooper et al. 2008]. For instance, in 2016 three sailing regattas were held in Darłowo, which should be assessed positively. However, it seems that the sailing potential of Darłowo has not been fully utilized in this regard.

The main issue for the ports of West Pomerania is the seasonality of sailing traffic, limited to the period from May to September. Offering the option of winterizing and yacht repairs does not solve the problem. It seems that providing additional tourist attractions not related strictly to sailing tourism or even tourism in general, which is practiced in bigger yacht marinas in Europe [Luković 2012] could limit the seasonality of sailing traffic. Sailing tourism, with its dense network of mutual connections, is predisposed to concentrate economic activity. A feature which would attract sailors could be the presence of the following on the port premises: restaurants, spas, massage salons, conference facilities, shopping malls, small shipyards, and apartments or houses on water, which are becoming more and more popular in Western Europe [Łapko 2015, BPŻ 2017].

The biggest share in the financing of the investment process should belong to non-returnable external funds, as much as it is possible. Local business entities should be involved in the development of sailing potential. That way, new money will enter into the local economic circulation and positively influence the multiplier effects.

CONCLUSIONS
Tourism can have a significant impact on the development of the local economy. Tourists constitute an exogenous factor in the development of the reception area. Owing to them, additional money is introduced into economic circulation and, through multiplier effects, impacts almost the entire economy. The power of this impact depends to a large extent on the local economy’s capacity to utilize the tourist traffic. The more local businesses offer tourist services, and the more connections there are between them, the greater the economic benefits for the area of reception.

In the recent years, the sailing traffic in the port of Darłowo strongly developed, as a result of the expansion of the sailing infrastructure. Sailing tourism generated numerous benefits for the local economy. Direct benefits in the year 2016 were estimated at PLN 1,517,000. It is difficult to determine the relative importance of the aforementioned value, due to the lack of a comparative base. However, the expenses of sailors possibililitated the development of local entrepreneurship and created workplaces.

The tax revenues – one of the categories of secondary effects – constituted only a small part of the local budget, but together with the income of the port operator allowed to cover the investment outlays for the construction of the yacht marina. A significant part of the benefits from the development of nautical tourism is accumulated in the local economy. This is
confirmed by the high propensity to consume in the residents of the municipality, the dominance of local businesses offering sailing services, and their investment activity.

The perspectives for the development of sailing tourism in West Pomerania are promising. However, its further development will require the adjustment of the service offer to the expectations of sailors. It is postulated to broaden the scope of services provided with a gastronomic, hotel, and entertainment base. Also, it will be necessary to account for the demographic processes in the service offer. Limiting the seasonality of the sailing traffic will require, based on the experiences of Western European countries, offering tourist related services.

Maximizing the benefits from the development of tourism will require involving local businesses in the service activities. In the investment process, external and preferably non-returnable sources of financing such as EU funds should be obtained.

REFERENCES

Fache, W. (2002). The common weekend will be more and more threatened the future. Leisure Futures, Congress Innsbruck.

**BEZPOŚREDNIE ORAZ POŚREDNIE ODDZIAŁYWANIE TURYSTYKI ŻEGLARSKIEJ NA ROZWÓJ LOkalnej Gospodarki Na Pomorzu Zachodnim Na Przykładzie Gminy Darłowo**

**STRESZCZENIE**


**Słowa kluczowe:** infrastruktura żeglarska, przystań jachtowa, rozwój lokalny