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Retailing as a development indicator of a cross-border city region – case study of Szczecin in Poland

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Abstract

Aim/purpose – The purpose of this study was to create the delimitation of Szczecin's regional retail functions impact range on both Polish and German borderlands.
Design/methodology/approach – The aim of this study was achieved by: (a) a social study – carrying out a survey among 326 consumers (West-Pomeranian residents) (b) field research – conducting statistics of vehicle registration plate in five shopping malls in Szczecin and one in Schwedt (city in German borderland), which enabled the re-searcher to create maps of retail interactions and (c) spatial analysis – distribution of shops and shopping malls, inventory of facilities.
Findings – The result of the study is a delimitation of three zones (on cross-border area) where Szczecin impact spans considering retail functions and shopping migrations.
Research implications/limitations – Results may serve as a basis for determining trends in shopping migrations on researched area. The results of the survey, which give information about cross-border consumer behavior and directions of shopping migrations, constitute a contribution for practitioners.
Originality/value/contribution – It is one of a few empirical studies on regional retail functions impact range in the cross-border region.

Keywords: retail trade, regional place, shopping centre, borderland, cross-border region.
JEL Classification: O0, O1, R0, R1.

1. Introduction

Retail trade is one of the most dynamic and most significant economic sectors and modern cities cannot operate and evolve without it. It not only fulfils the shopping needs of city residents but also generates strong connections on a local and a regional scale. Retail trade is, from the perspective of Christaller's central place theory, a central service, which means that it services people who lived in the area of the influence of a central city. Previous research (Burger, Meijers, & Van Oort, 2014; Evers, 2002; Kaczmarek, 2011) has shown that retail is a significant development indicator on cross-border regions, especially where borders are permeable. In these cases, the retail sector closely follows the labor and housing markets in providing evidence of the strength of connections between cross-border regions.

The following study aims to determine the directions of shopping migrations to Szczecin, an important administrative and socio-economic centre on the Polish-German borderland and to delimit city spatial range as a retail centre. Szczecin is one of the largest European cities, located next to the Polish-German border. It is a major seaport and Poland's third-largest city by acreage and seventh-biggest by population (404.9 thousand in 2016). It is a capital city of the West Pomeranian Voivodeship and urban centre of the Szczecin agglomeration – ca. 720 thousand residents (Główny Urząd Statystyczny [Central Statistical Office of Poland], 2017). The city's location near the border, its proximity to the Baltic Sea and political permutations in Europe have had a strong impact on the city's developmental processes. Szczecin in past centuries was a German town and only in 1945 was it returned to Poland.

Due to border transparency in European Union structures, Szczecin (similarly to the time before 1945) has become a socio-economic centre of life (work, shopping, and services) for the wider cross-border region. From 1991, when the border was opened, many new shops, focused on German customers, came into existence in Szczecin and its suburban zone. Initially, there were bazaars located on the border area (also known as *Polenmarkt*). For some years, Szczecin retail facilities were expanding, and new, modern shops were build, e.g., Shopping Malls, Shopping Centres, Hypermarkets and Discount Stores. A lack of big cities on the German borderland and scarce shopping facilities have generated significant shopping migrations from the German cross-border regions, especially on Sundays, when German shops are closed (since March 2018, shops are now closed on Sundays in Poland as well). It has to be highlighted that many differences can be seen between these two countries, mostly economic differences, e.g., salary levels and prices for commodities or services. This is an additional factor of shopping migration, also known as shopping tourism.

The aim of this paper is to find answers to the following research questions:

1) What is the potential of the city as a regional trade centre?
2) Where do Szczecin's customers come from? What are the motives for cross--border shopping?
3) What are the directions of retail trade migrations to Szczecin (as a high rank retail centre)?

The first section is an introduction to the research theme. The second section presents a literature review and the concepts of cross-border shopping and shopping tourism, shopping migrations, and a shopping centre, which form the basis for research undertaken in this article. The third section presents the research methods used in the work. The fourth section details the results of the research, which were discussed in the fifth section. The last section contains the conclusions of the conducted research.

2. Literature review

Connections between settlement units and zones of their influence, and, as a consequence, their distribution were the subject of the geographer W. Christaller's research. According to his Central Place Theory, the city's strength is determined by its central functions, which are understood as activities consumed by the population of the region (Christaller, 1933; Nowosielska, 1992). The city's strength associated with central goods is determined by their range of influence. According to Christaller (1933), the scope of the central good should be understood as the greatest distance that the dispersed population can overcome in order to purchase goods and services offered in a given unit. The basis of this paper is the aspect of the city's impact as a retail trade centre on its regional background.

Connections and relations at borderlands which shape the cross-border region are formed in a specific way. Researchers have dealt with the problem of the formation of cross-border and border regions on the Polish-German border as early as in the nineties of the last century (Kaczmarek, 1996; Matykowski & Mizgajski, 1996; Oßenbrügge, 1996; Stryjakiewicz, 1996). The border between Poland and Germany had and still has a special role in shaping the future development of both areas, as well as overall European integration. The structure of cross-border interaction and the intensification of economic cooperation is based on the policy of both countries, which is affected by historical relations, political economy of regions, differences in the political organization of the borderland and the settlement system (Oßenbrügge, 1996). Cross-border cooperation, which results in the creation of a cross-border region, can be defined in a twofold way (Szul, 2001): *sensu stricto* as an institutionalized cooperation of authorities and other institutions located on both sides of the state border and *sensu largo*, as any form of cross-border cooperation, including irregular trade and tourism. Trade is considered an important component for the development of the border and cross-border area not only within the European Union, but also along the Polish-Russian border (Modzelewski, 2015; Palmowski, 2010). Along with the change in the permeability of the border, the market is opening up to new consumers. New commercial facilities occur, which generate shopping migration due to differences in prices, assortment or availability. Based on the differences between regions, further connections are created. The city centre may become a node that intensifies cooperation, migration and co-operation. On the Polish-German border, this role was attributed to Szczecin which, as the largest city in the northern part of the borderland, can fulfil cross-border central functions (Balogh, 2014; Matykowski & Mizgajski, 1996; Oßenbrügge, 1996).

One of the functions of the modern city, which cause interaction and communication with its background is modern commercial activity, has been implemented in the form of shopping centres. They constitute clusters of many commercial buildings under one roof, spread over a very large area. Activities that are located in shopping centres are not limited to commercial activities, but also include other service functions. The shopping centre has become a peculiar combination of shopping street, market, gallery, passage with small shops and a department store and hypermarket (Heffner & Twardzik, 2015; Kaczmarek, 2010). For the needs of this research, a shopping centre is defined as a scheme that is planned, built and managed as a single entity, comprising units and communal areas, with a minimum gross leasable area (GLA) of 5,000 square metres and consisting of a minimum of 10 shops (International Council of Shopping Centers).

When examining the range of influence of retail trade functions on the Polish-German borderland, the concept of cross-border shopping, shopping tourism and shopping migration should be clarified.

The simplest definition of shopping tourism defines it as a journey from the place of residence to another city or country, primary aim of which is to do shopping. Shopping tourism is a very interesting case to research for many scientists, mostly geographers, but also economists and sociologists. They are analyzing aspects of intensity, size, direction and customer motivation for shopping tourism. They also analyze social and economic consequences of these processes. On the cross-border regions, at the borderlands, shopping tourism has advanced after a change in the character of the border, from a barrier to social contacts to a more permeable place where two or more cultures meet. Cross-border shopping tourism is defined as purchases being made while traveling to another country with the specific purpose of shopping and by consumers who live at the border area (Clark, 1994; Di Matteo & Di Matteo, 1996; Leimgruber, 1988; Lewis, 1990; Timothy, 1999; Timothy & Butler, 1995; Van der Velde, 1999). Leimgruber (1988) points out four economic and socio-political conditions that are crucial to the existence of shopping tourism. First, there must be enough contrast between the home location of the travelers and the potential destination across the boundary in terms of prices, quality of merchandize and selection. Secondly, consumers must have a good knowledge of what exists across the border, they have to have prior knowledge about the goods on offer in the destination place. What is more, the border must be permeable enough to allow an easy flow of people across the frontier, so the willingness to travel is not hampered by restrictions and administration. Last but not least, customers have to be able and willing to make the shopping journey, taking into consideration issues such as personal mobility and currency exchange differentials.

Consumers always pick up the most attractive offer, considering prices, the possibilities to travel and some additional factors, such as the attractiveness of shopping places or extra services. In addition to that, important conditions in shopping tourism are the attractiveness of the city and the pleasure of shopping and spending time in this way (Więckowski, 2010). An important condition which determines the intensity of shopping migration is retail organization and rules governing, e.g., shopping hours on both sides of the border. The possibility for Sunday shopping, which refers to the ability of retailers to operate stores on Sunday and differences in opening hours, may encourage some customers to shop abroad.

Consumer mobility is dependent on push and pull factors (Bygvrå & Westlund, 2005; Di Matteo & Di Matteo, 1996; Spierings & Van der Velde, 2008; Timothy & Butler, 1995). Push factors stimulate mobility because they imply that shopping in places abroad are perceived to be more attractive than places in the home country. Pull factors promote cross-border shopping by implying that foreign places are considered more appealing that places in the home country (Spierings & Van der Velde, 2008).

Many researchers have conducted studies about cross-border consumers, the results of which has been the characterizing of people who purchase goods abroad. They have higher income, do not have many children and they have negative thought about goods offered in their local market (Herrman & Belk, 1968; Rosenbaum & Spears, 2005). Studies on cross-border retail trade and cross-border shopping were carried out on many national borders, e.g., Mexico – USA (Sullivan, Bonn, Bhardwaj, & DuPont, 2012), Croatia – Hungary (Michalko & Varadi, 2004), Canada – USA (Timothy, 2000), Poland – Germany (Dasher & Haupt, 2011; Kaczmarek & Stryjakiewicz, 2006), Luxembourg – Belgium, Luxembourg – France, Luxembourg – Germany (Mathä, Porpiglia, & Ziegelmeyer, 2014).

According to a survey conducted by the European Commission in 2014 (Flash Eurobarometer 397, 2015), the biggest percentage of customers who are shopping abroad is in Luxembourg (38%), the Netherlands (27%), Estonia and Slovakia (both 21%). In the countries examined in this study, Poland and Germany the percentage of customers who shop abroad was 11% for each country.

3. Research methodology

To create the delimitation of Szczecin's regional retail functions impact range on both Polish and German borderlands, a number of methods was used: social study (questionnaire), field research and spatial analysis.

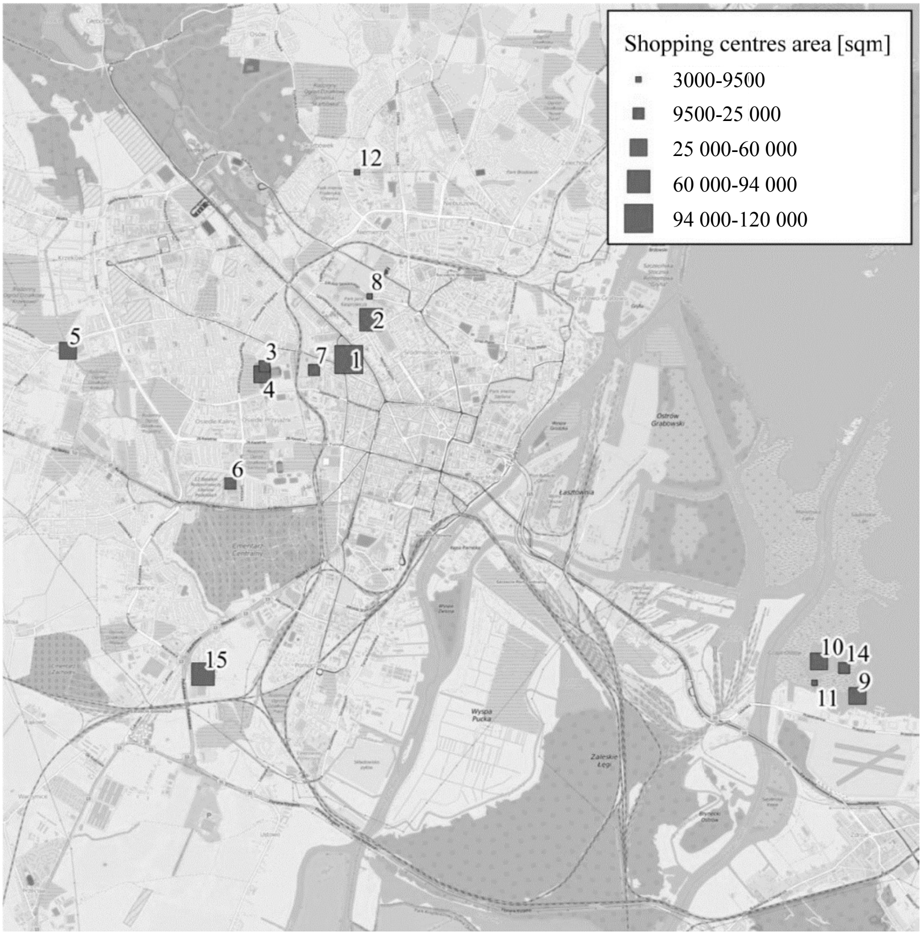
The market potential of Szczecin embraces 700,000 people for municipal services within a regional range. The frequency of exploiting these services is one-two per month and time of approach does not exceed 1.5 hours. It should be noted that 110,000 people live on German borderland (Dutkowski, 2011).

The questionnaire's aim was to examine the impact of Szczecin as a retail trade centre, indicating the competing centres for city and examining the type of shopping interactions that take place in Szczecin. The selection of the sample was random, and the experiment was carried out in two shopping centres, on both sides of the Oder, Galeria Kaskada and outlet centre, known as Outlet Park Szczecin. The survey involved 326 respondents, of whom 226 were Polish residents of Szczecin. The respondents were dominated by young people under 40 years old (65% of the respondents). Young people visit the shopping centres more frequently and choose this space as a way of spending their free time. This result was confirmed in a study conducted by Inquiry Market Research, which investigated client segmentation using mobile phone signal detection. The customers of shopping centres were mostly people under 45 (author's inquiry from 2015).

The second method of collecting data to determine the extent of the city's retail trade impact was the statistic of motor vehicles. In order to determine the scale of influence, one should acquire modern, reliable knowledge which accurately reflects the essence of the phenomenon taking place, due to the requirements posed by the dynamics of socio-economic processes (Kuc, 2012). In this direct research, the author examined the number of consumers coming to Szczecin's shopping centres and to the German one, classifying them according to the place where the car was registered (potential district of residence). This study was carried out in six shopping centres. Five of them are located in Szczecin – CHR Galaxy, Galeria Kaskada, Auchan-Kołbaskowo, CH Ster, Outlet Park Szczecin and the last one is in Schwedt, Germany – Schwedt Oder-Center. The measurements were always carried out on Saturdays from 11 am to 5 pm in similar weather conditions. The study was conducted in 2016. In the study, the author collected information about the registration of 10,592 cars leaving Polish shopping centres and 418 Polish cars leaving the German shopping centre.

The third method was an inventory of existing shopping centres in Szczecin (Figure 1) in terms of total area, commercial and service area, the presence of additional gastro and entertainment services, shopping centre generation, the number of parking spaces and finally social aspects – an evaluation of individual facilities by residents (on websites and in the survey).

Figure 1. Distribution of shopping centres in Szczecin



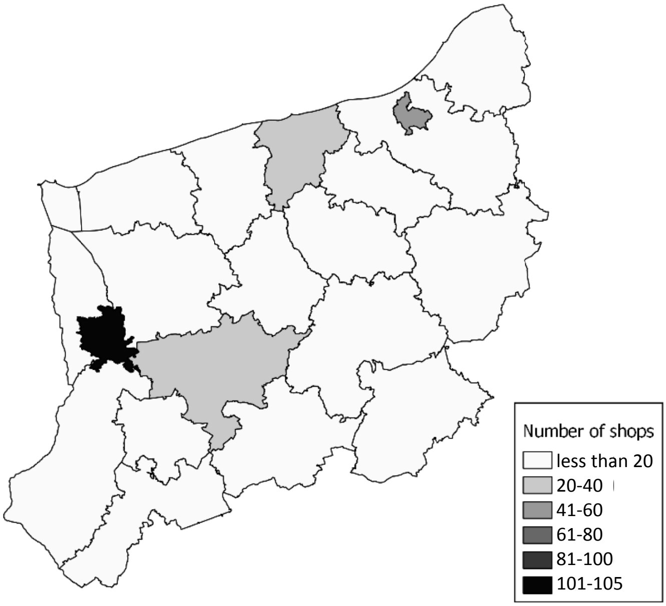
Source: Author's analysis based on inventory of shopping places from 2015; Open Layer Map (s.a.).

To compare the number of commercial facilities in counties of the West Pomeranian Voivodeship, data from the Central Statistical Office were used.

4. Research findings

Szczecin as a trade centre is the most competitive market in the region. 105 of a total of 423 shopping facilities in the voivodeship are located here (supermarkets, hypermarkets, department stores and department stores). The distribution of the shopping facilities in counties in the West Pomerananian Voivodeship is shown in Figure 2.

Figure 2. Number of shops in counties in West-Pomeranian Voivodeship



Source: Author's research.

The biggest commercial space, many services, the most popular brands and unique products in region are offered by Szczecin's shops. Nevertheless, the market is not sated with shops and it creates the optimal conditions for the establishment of new ones (Table 1).

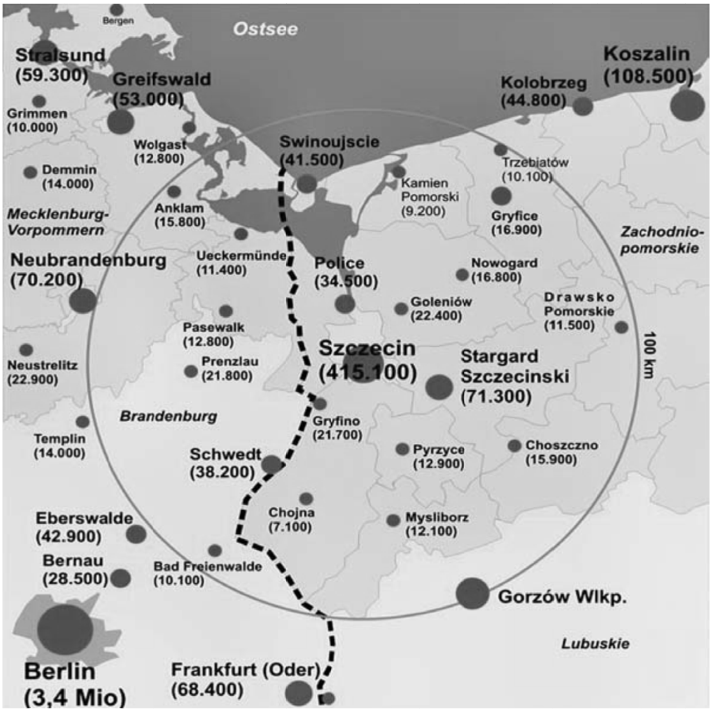
Table 1. Basic data about shopping centres potential in the Szczecin Agglomeration

Basic data	
GfK purchasing power (annually)	29,980 PLN (per capita)
GfK purchasing power index	117% national average
Resources	275,300 m^2 GLA
Number of shopping centres	15 (1 under construction)
Saturation	484 m^2 GLA/1000
Area under construction	5,000 m^2 GLA
Rate of empty spaces	1.6 %
The highest rents	37-39 EUR/m^2 per month

Source: Based on Colliers International Research (2015); author's inventory of shopping centres from 2015.

The impact range of city and its retail functions, customarily develop concentrically (Figure 3). Through Szczecin's location on the borderland, near to the Baltic Sea and the fact that the Odra river flows through the city and divides it to two parts, one might imagine that zone of impact range of the city would have an irregular, asymmetric shape. Nonetheless, border permeability, the simplicity of going abroad and the history of the town, which was for many years within German borders, have changed the situation. The zone of the range of impact of Szczecin's retail functions is expanding concentrically.

Figure 3. Settlement around Szczecin within its services impact range

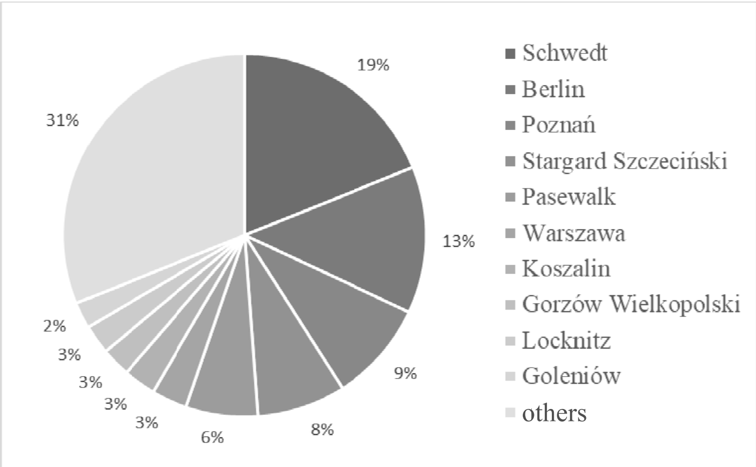


Source: Regionalne Biuro Gospodarki Przestrzennej w Szczecinie [Regional Office for Spatial Management in Szczecin] (2015).

In the conducted questionnaire, the respondents perceived Szczecin positively as a trade centre (82.2%), indicating the CHR Galaxy Centre (33.7%) and Galeria Kaskada (33.44%) as the most attractive shopping centres in the city.

The results of the survey indicated that Schwedt is a competitive retail trade centre for Szczecin (Figure 4). The proximity of the border and the freedom to cross it allowed the residents of the region to shop in Germany. When examining the competitiveness and potential of Schwedt, it was found that it had a lower rank than Szczecin. A smaller retail area, small differences in the brands of retail chains in relation to Poland testify to its weaker trading position. The strength of the Schwedt base on its proximity and sales proposal, e.g., German products which are not available on the Polish market.

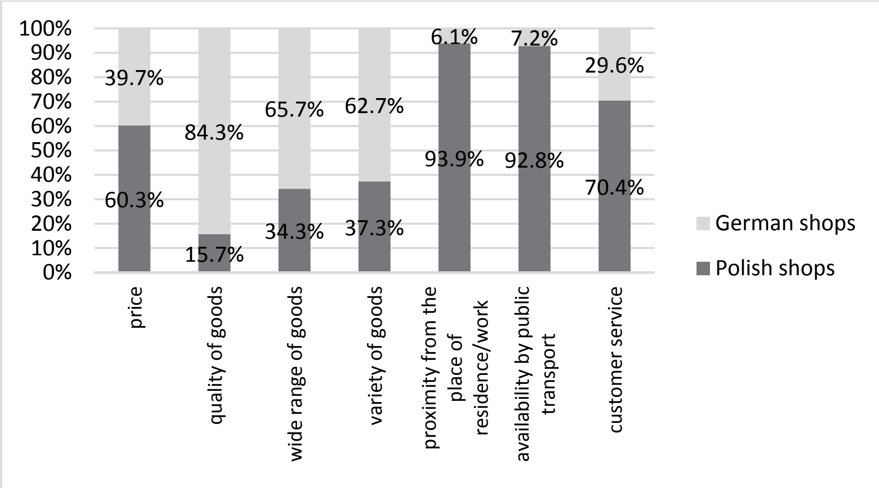
Figure 4. Cities where respondents buy goods outside of Szczecin



Source: Author's research.

In order to analyze spatial relations, the respondents were asked to evaluate and compare the Polish and German sales proposal, point out the products which they mostly buy abroad and the places where these purchases are made. Poles most often bought chemicals and beauty products (30%), sweets (21%) and clothing (20%) abroad. The main factors which made German retail offer more attractive to Polish consumers were the quality of products, and the wide range and variety of goods. The Polish market was more attractive in terms of price, proximity to the place of residence, availability of public transport and the quality of customer service (Figure 5).

Figure 5. Factors that determined the place of shopping



Source: Author's research.

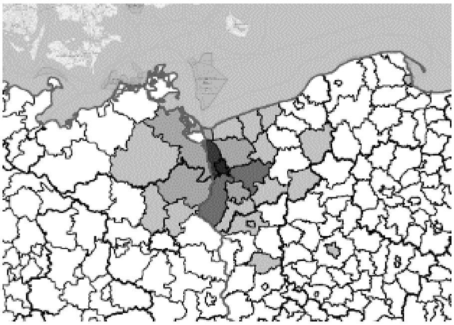
The results of the research based on car registration plate measurement were a base for determining the three zones of Szczecin's retail function impact. Most consumers of five shopping centres in Szczecin, where the research was conducted, were from the Szczecin Agglomeration, from nearest counties. Germans also visit Szczecin in number for shopping because prices are lower than in their local market.

The most important aspect for Poles while choosing a shop was its location. In a commuter structure, we can see a clear trend that customer structure is related to its location (and also to routes).

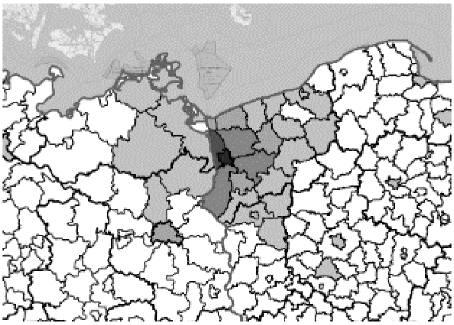
Customers from Germany did their shopping in places where some additional services and goods were offered. For example, in CH Auchan-Kołbaskowo, an additional service was a petrol station with low prices; in CH Ster, it was the Castorama – a specialty store of home improvement, DIY tools and supplies. Customers rarely choose malls situated in the city centre as a shopping destination. For them, easy access next to the road and near the border crossing were the most important factors.

Based on the research results from five shopping centres in Szczecin (Figure 6), the impact range of Szczecin as a retail centre has been marked out. Summing up, all measurements form a generalization of the results (Figure 7). The size of the research sample was 10,592 cars. On that basis, the author has created a cartogram which shows the profile of customers to Szczecin. The next step was the delimitation of the three zones where the impact of Szczecin is detectable.

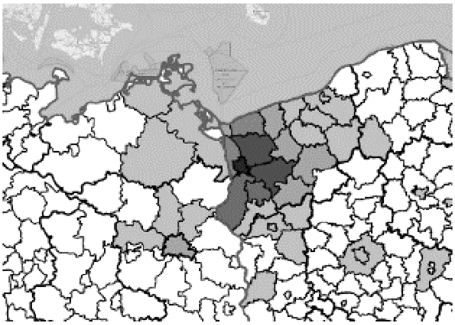
Figure 6. Spatial influence range of the researched shopping centres in Szczecin



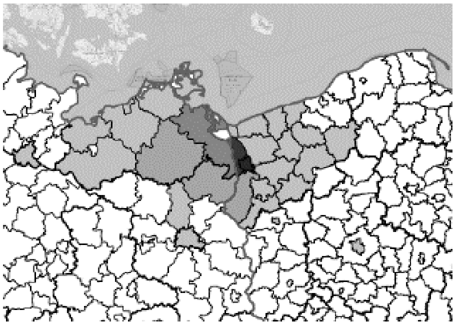
CH Auchan-Kołbaskowo



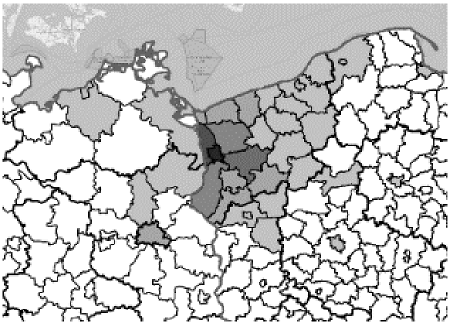
CHR Galaxy



Outlet Park Szczecin



CH Ster

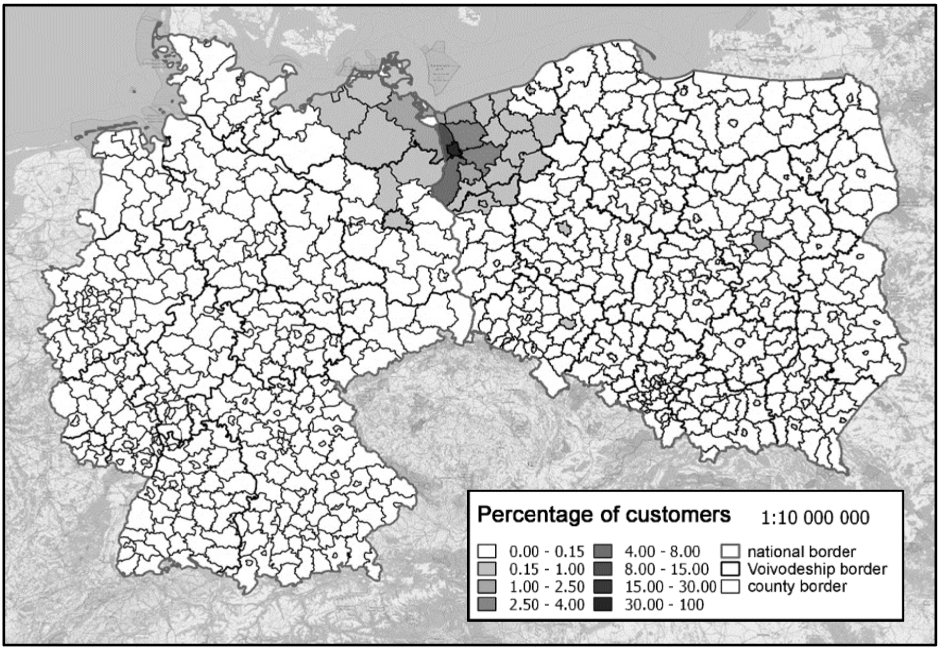


Galeria Kaskada

Note: A darker colour denotes more customers from this area.

Source: Author's research.

Figure 7. Counties from which cross-border shoppers came to shop in Szczecin (all shopping centres combined)

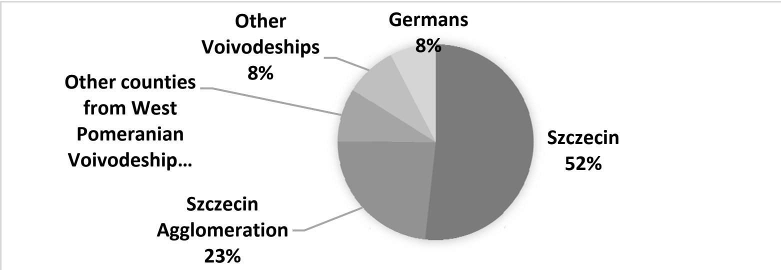


Source: Author's research.

The biggest percentage of customers was cars with a vehicle registration plate from the West Pomeranian Voivodeship. Szczecin has the biggest impact of the nearest located counties. The second area of Szczecin's influence were these German counties situated on the borderland. Customers from Germany represented 7.6% of all customers who were visiting shopping centres in Szczecin during the research. They came from Mecklenburg-Vorpommern, Brandenburg and Berlin. Cross-border shoppers from Germany visit Szczecin more often than Polish customers from counties outside the Szczecin Agglomeration. In this visitor structure can be seen a huge representation of customers from the Mazovian Voivodeship; however, they often lease a car, which affected the research results.

The profile of customers from West Pomeranian Voivodeship is diversified (Figure 8). Most customers are from Szczecin. Secondly, in terms of the number of cars were residents from Police (15%). Police is a county which has the strongest connections with Szczecin. Well-organized transportation and routes are propitious factors. Cities and villages in Police county are often satellite towns for Szczecin. Their residents work, study and do shopping in Szczecin. There is no single shopping centre in this county, so it is natural that residents choose Szczecin as their centre of life. The next counties from which many customers come to Szczecin for shopping are Gryfiński, Stargardzki and Goleniowski. These three counties are part of the Szczecin Agglomeration and Szczecin Metropolitan Area. They border Szczecin and they are well connected with the city by national routes. Gryfino has no shopping centre so customers choose Szczecin or Schwedt (which results from research in the Schwedt Oder-Centre). Shopping centres located in Stargard and Goleniów are unattractive, so residents look for more appealing shopping destinations.

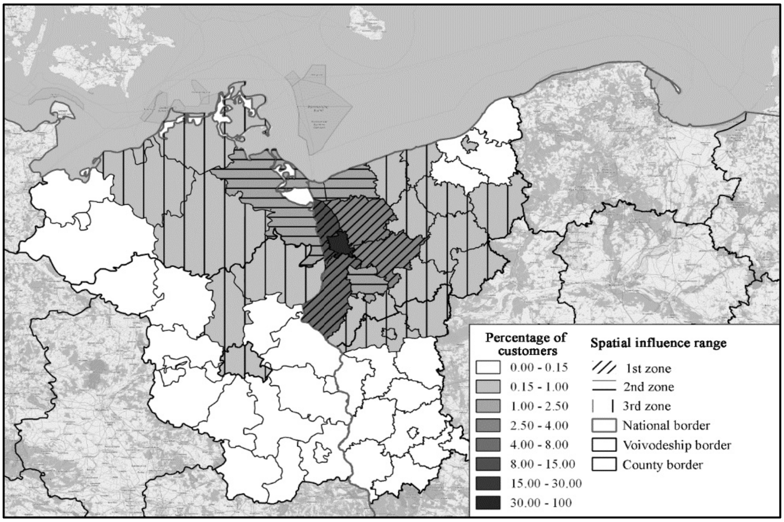
Figure 8. Places from which cross-border shoppers came for shopping in Szczecin



Source: Author's research.

The cartogram which appears below (Figure 9) shows the counties from which cross-border shoppers come who buy goods in Szczecin. The three zones where Szczecin's impact as a regional trade centre spans were delimited.

Figure 9. Three zones where Szczecin's impact as a regional trade centre spans



Source: Author's research.

The first zone includes four counties – Policki, Gryfiński, Stargardzki and Goleniowski. Those are four nearest counties and they have the strongest connections with Szczecin. Residents from these counties frequently visit Szczecin for shopping and also work and study there. Good routes, a well-organized public transport system and the short distance have an effect in shopping location choices in the big city.

The second zone includes four counties, but one of them is the German county of Vorpommern-Griefswald, which is located in Mecklemburg-Vorpommern; the Polish counties are Pyrzycki, Kamieński and the city of Świnoujście. They are situated further away from Szczecin, but they do not have well-developed shopping centres. The city of Świnoujście is an exception because it has got some big shopping malls, but still they do not have as big a choice as Szczecin's shopping malls.

Lastly, the third zone includes nineteen counties. Six of them are in Germany and are situated in Mecklenburg-Vorpommern, Brandenburg and one is a big city – Berlin. Ten of them are counties from West Pomeranian Voivodeship and three are from Lubusz Voivodeship. Connections in this zone are weaker, but cross-border consumer still come for shopping in Szczecin. What is more, this zone goes beyond the border of West Pomeranian Voivodeship and includes counties from another Polish voivodeship and big capital city of Lubusz Voivodeship – Gorzów Wielkopolski. Also, cross-border shoppers from Berlin come to Szczecin. The reasons for this shopping tourism are known from the survey – lower prices, tourism and the (previous) possibility to shop on a Sunday, when German shops are closed.

On the other hand, Szczecin's residents often cross the border to do shopping in Germany. As a destination, they choose Schwedt and the shopping mall Schwedt Oder-Centre. Poles buy goods abroad because of their quality and the possibility to buy goods which are unavailable in Poland. Many goods are available in both Poland and in Germany, but in public opinion, German goods are of a better quality.

5. Discussion

The collected data can be used as a basis for determining the impact range of shopping centres in Szczecin. The applied research method, based on the measurement of the number of car number plates in relation to the place of their registration, allowed to determine three zones where Szczecin's shopping centres impact spans. Nevertheless, the author encountered problems while collecting data. First of all, there was the difficulty in choosing the exit from the car park, where the car plates measurement was conducted. The place of measurement was a subjective assessment, based on previous observations made by the author. It should be emphasized that consumer traffic was much larger than actually represented in the data, but measurements were made only at one point. The number of exits from car park influenced the differentiation of results between individual centres. The bigger number of exits, the statistically fewer vehicles uses each one. The second of all possible limitations while collecting data was potential mistakes in reading the car number plate, which can be caused by:

1) a dirty car number plate;
2) the similar notation of numbers or letters on car number plate, which can be mistaken because of the distance;
3) leased cars, which are mostly register in Warsaw;
4) the number of people traveling by one car could vary.

On the other hand, however, because of the large sample size, it allows us to picture general trends. What is more, due to changes in German law, which withdrew the obligation to re-register the car after purchase, it was the last chance to conduct car plates analysis.

The conducted research confirms the results of foreign researchers concerning the factors which determine the development of retail trade in the borderlands (Bygvrå & Westlund, 2004; Di Matteo & Di Matteo, 1996; Spierings & Van der Velde, 2008; Timothy & Butler, 1995).

The results of the research complement previous knowledge about shopping migrations and retail structure on a cross-border area. Furthermore, a gap in the research has been noted, which relates to the lack of surveys about shopping migrations among German customers. In consequence, the picture of cross-border customer on Polish-German borderland remains incomplete.

The impact range of the city is more open to discussion, since it is the largest town in the Voivodeship and because of that gains a competitive advantage in acquiring new investments.

6. Conclusions

The research methods applied in the study allowed the main aim of this article to be achieved, which was to determine the motivations, frequencies, and directions of the migration of buyers to the large-area shopping centres in Szczecin. The research results about the impact range of Szczecin as a regional retail trade centre presented here represent new knowledge about the functioning of trade in border areas. The conducted survey outlines the image of the Polish customer, a cross-border shopping tourist from Polish-German borderland. The results of the survey confirmed the thesis about push and pull factors (Bygvrå & Westlund, 2004; Di Matteo & Di Matteo, 1996; Spierings &Van der Velde, 2008; Timothy & Butler, 1995). Poles went to Germany for products not available on the Polish market or those that they thought had better quality. They always had prior knowledge about the availability of nature of goods in Germany.

Valuable results were achieved by using the car plate statistics method to examine the impact range of the shopping facilities. Surveys mostly dominate in impact range research, in which the respondents indicate migration in the places of purchase. Other methods which are often used are involve collecting information about postal codes while shopping in a store, research based on a mobile phone signal or gravity models that use information about objects for statistical calculations.

Despite the reservations mentioned in the previous section, the statistics concerning car plate registration indicated some interesting results and may serve as a basis for determining trends in shopping migrations on the researched field. These research methods may be applied in other areas of research, subject to legal regulations. They could be repeated in Poland, but in the case of Germany or the United Kingdom, vehicle statistics studies would no longer be reflected in reality, due to the lack of obligatory re-registering the car after purchase.

Information about cross-border consumer behavior and directions of shopping migrations were the results of the survey and can be a basis of a contribution for practitioners. They can be used in the process of forming urban policy and development strategy for shopping centres in the borderland to choose their best location, i.e. the one that will attract the biggest number of customers.

The further development of retail functions, including shopping tourism, is subordinate to many factors. First of all, the boundary can change. Nowadays it is permeable and does not constitute a barrier for cross-border shoppers or tourists. As a result of political agreements, it can change to a barrier which may have an impact on cross-border shopping movement. External factors regulated by the European Union can also change the situation. A topical subject now is changing currency from zloty to euro. It may occur in equalization of prices, and so the Polish market will no longer be as attractive for German customers. Political changes and new rules or regulations can also influence shopping connections. Since March 2018, new legal conditions occur and shops are now closed on Sundays in Poland which may hinder commercial competition between the regions. The closure of stores, and thus the unification of regulations in this aspect in both countries, may have an impact on cross-border shopping tourism. It is possible to limit the frequency of shopping trips or intensify these journeys on days other than Sunday. In this regard, research involving the measurement of German consumers' movement on commercial Sundays should be undertaken, as well as surveys on the views of consumers from Germany about the limitations in shopping on Sundays.

The present research postulates the need to undertake further analyses of commercial structures. Measurement of the remaining shopping centres in Szczecin is worth conducting, as well as increasing the research sample in addition to the current research. An important element of the commercial network is also marketplaces, which should be the subject of further research in the field of commercial structures, their functioning and customer structure. It is also worth analyzing the city's financial policy relating to commercial premises and the capital structure of existing facilities.

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