

WOJCIECH DYBA

Adam Mickiewicz University in Poznań, Poland

## Local impacts of large greenfield investments: the example of the Volkswagen car production plant in Września, Poland

**Abstract:** Large investments can have significant impacts on local development, as illustrated by the concepts of the multiplier effect and corporate social responsibility. The subject in this paper is the Volkswagen-Crafter car production plant opened in 2016 in Białężycze near Września (Wielkopolskie Voivodeship in Poland), one of the largest greenfield investments in western Poland since 1990. On the basis of the data obtained from company representatives and local governments, the numerous benefits for local residents and the natural environment resulting from the investment and actions undertaken at Volkswagen have been described. Questionnaires among residents have shown that the main benefits of the plant are the creation of new jobs, new municipal and infrastructure investments, an increase in Września's prestige, an increase in service sector activity as well as housing for new inhabitants and start-up companies cooperating with Volkswagen. The recognition and reliability of Volkswagen as an employer and large enterprise (along with other factors, e.g. discounts on cars for employees) influence the above-average sales of Volkswagen in Września Powiat.

**Keywords:** corporate social responsibility; greenfield investments; investment effects; local development; multiplier effects; new car sales

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## INTRODUCTION

The impact of large enterprises, especially transnational corporations, on regional and local development, has for a number of years been an important contemporary research issue in socio-economic geography, in particular the geography of industry in Poland (for a review of the current literature in this area, see Rachwał, 2018; Śleszyński, 2018; Tobolska, 2018). Attempts are being made to examine the results of strategic investments of foreign enterprises on natural and social environments (e.g. Tobolska, 2010,

2017) and one of the important concepts used for this purpose is the multiplier effect (Domański, Gwosdz, 2010; Stryjakiewicz, 2004; Wiedermann, 2008). In recent years, the concept of corporate social responsibility, which shows the importance of enterprises for the income and training of their employees, but also for local communities and the natural environment in the immediate vicinity, is gaining popularity, especially when analysing the activities of large corporations. However, the motivation for social commitment is often to achieve specific economic benefits, e.g. increase in sales, image improvement and building a strong brand (Adamczyk, 2009; Kuźlak, 2018).

The case study is a plant of Volkswagen Group opened in 2016 in Białężyce near Września, Wielkopolskie Voivodeship to produce the Volkswagen Crafter van (in 69 variants). The investment carried out in the Września Economic Activation Zone is considered the largest in western Poland in the 21<sup>st</sup> century with a value estimated at EUR 800–1000 million. The research presented in the article aims to analyse the impact of the investment on the development of the Września Land in the light of two concepts: the multiplier effect and corporate social responsibility. It was decided to investigate opinions on this influence from representatives of Volkswagen in Września and from local governments and residents. The assumption was that the company would always present its investments and community activities in a positive light, while local governments and residents can see both positive and negative sides to the location and operation of a large production plant. In particular, the paper aimed at answering the questions: 1) What benefits does the enterprise give to the Września Land and what do the local self-government gain from the investment? 2) How do residents evaluate the impact of the Volkswagen's investment and activities on local development?

At the same time, an interesting issue is a local interest in the products of the company, therefore, a third question was asked: 3) Has the proximity of the newly-opened Volkswagen plant increased local demand for Volkswagen cars? This aspect of the local impact of large investments has been neglected in previous research in Poland. It is essential for the corporation itself, as it allows for at least a partial assessment of the effects of its investment and activity at the local level in the vicinity of the plant.

To answer the research questions, in-depth interviews with representatives of Volkswagen Poznań and the local self-government (commune and powiat) in Września were made, as well as a questionnaire given to a sample of 415 car owners residing in and around Września. In addition, statistical data from the Central Register of Vehicles and Drivers was used to provide a more complete answer to the third question.

## RESEARCH ON THE IMPACT OF FOREIGN INVESTMENTS ON LOCAL AND REGIONAL DEVELOPMENT

The first research on the impact of the investments, especially foreign ones, on local and regional development in Polish economic geography came from the mid-1990s. Then, as a result of the systemic and economic transformation from 1989, investments in Poland could be made on market terms. In the first publications, the subject included the distribution and characteristics of foreign investment in Poland, as well as possible importance for the country, regions and sub-regions (Domański, 2001; Dziemianowicz, 1997; Stryjakiewicz, 1999). The authors of subsequent works analysed in detail the changing conditions and directions of foreign investment in various regions (Brezdeń, 2004, 2016; Cieślak, 2005; Wdowicka, 2005) and the institutional provisions for direct

foreign investment applying then (Stachowiak, 2007). It was also pointed out more than once that attempts should be made to ensure large foreign investments were embedded in local and regional conditions (Domański, 2004; Dyba, 2013; Stachowiak, 2011). The potential and actual investment attractiveness of regions and sub-regions in Poland were also examined, as well as factors in the location of direct foreign investment, with particular emphasis on the role of local governments in attracting investors (Cieślak, 2007; Dziemianowicz, Łukomska, Ambroziak, 2019; Godlewska-Majkowska, 2013; Jarczewski, 2012).

Two concepts describing the impact of enterprises on local and regional development form the theoretical basis of this article: multiplier effects and corporate social responsibility. The concept of the multiplier effect<sup>1</sup> states that the positive results of investment in business activity appear after the establishment of an enterprise or later when profits and employment in related enterprises in a particular area are 'multiplied' (Domański, Gwosdz, 2010). Multiplier effects are the sum of all direct and indirect benefits arising as a result of the operation of the enterprise in question, not only in its location but around and in related sectors (Strykiewicz, 2004). These benefits, the positive results of the functioning of large enterprises in regional and local economies, can be considered in two ways (Strykiewicz, 2004; Tobolska, 2010). On the one hand, related to demand (supply) effects there is an increase for enterprises that are suppliers of products and services. In particular, activities are related to a) the supply of raw materials and semi-finished products, b) subcontracting or outsourcing (transfer of certain functions to other businesses), c) the distribution of finished products, and d) the development of a so-called business environment (institutions supporting the functioning of the enterprise). It is possible to increase employment in businesses offering such activities. Cooperation with an enterprise, often innovative, may improve the level of products, technologies and organisation in such businesses which can then invest the profits resulting from an increased number of orders (Domański, 2001; Rachwał, Wiedermann, 2008). On the other hand, income effects also arise as a result of the increase in purchasing power of the population whose spending contributes to the development of services. Taxes paid by businesses and employees increase the income of local and national governments (Domański, Gwosdz, 2010; Wiedermann, 2008).

The formation of multiplier effects can be considered in two stages (Domański, 2002, Strykiewicz 2004, after Lloyd, Dicken, 1972, as amended). The initial effects of the location of a large enterprise (including foreign), are achieved as a result of new local demand. This demand is created by 1) attracting related activities, 2) new investment activities: construction and infrastructure, 3) expanding the service sector, 4) new opportunities for innovation. Attracting related activities involves upstream and downstream links in the production chain. Upstream relates to the construction of a network of connections with suppliers of raw materials and semi-finished products and downstream to the network of connections with consumers. The activities of businesses providing services to these enterprises, as well as cooperation with the business environment or research and development institutions, lead, in time, to additional investments and secondary multiplier effects. This can be understood in terms of higher local incomes, greater diversification of the economic structure, improvement

<sup>1</sup> The concept of the multiplier effect or investment multiplier in Keynesian terms also means a situation in which an increase in spending or investing (e.g. by the population) causes a more than proportional increase in national income (Milewski, Kwiatkowski, 2005: 379).

of the region's image as a potential location for new investments, attracting new enterprises or finally reaching a higher level of local and regional development (Domański, Gwosdz, Huculak, Wiedermann, 2005; Ziolo, 2009). However, local governments also sometimes mention the adverse effects of foreign investment, such as the negative impact on the natural environment due to the production techniques used, social tensions and other problems including increased unemployment and the bankruptcy of local companies competing with the foreign enterprise (Dziemianowicz, 1997).

According to Tobolska (2010), the effects of locating direct foreign investment on a regional and local scale can be divided into four categories: a) economic effects: increases in the income of local governments and residents, development of the region's economy, new investments, an increase in innovation, changes to the labour market; b) social effects: new job and development opportunities – new social structures, changes in the standard of living, sponsorship of events, shaping the attitudes of residents towards the investor; c) effects on the natural environment: using local mineral resources, emissions of pollutants and harmful compounds, post-production waste, activities aimed at improving the quality of the environment; d) spatial effects: changes in land use, changes in spatial development, new elements of infrastructure, new spatial patterns of businesses, new spatial connections, e.g. daily commuting of employees.

Another concept showing the importance of enterprises for the local development is corporate social responsibility (CSR). This concept arose in opposition to the traditional economic assumption attributed to Friedman that the sole purpose of business is to maximise profit in the name of shareholders. It assumes that the company can and should additionally act in the public interest, taking into account the social and environmental effects of their decisions. Respecting this principle has ethical and environmental justifications. On the one hand, it is a society that gives the entrepreneur legal status and privileges and allows the use of natural resources. On the other, there is a need to protect the natural environment for future generations (Adamczyk, 2009; Bernatt, 2009; Caroll, Shabana, 2010; Kudlak, 2018).

The frequently cited definition of CSR was formulated in the European Commission Green Paper on the concept of social responsibility. It is "a concept whereby companies voluntarily incorporate social and environmental aspects into their commercial activities and in dealing with their stakeholders. (...). This is a continuous commitment of business to ethical behaviour and to contribute to economic development, while improving the quality of life of the workforce and its families, as well as the local community and society as a whole" (*Green Paper on the concept of social responsibility*, 2001). The guiding idea of CSR is also part of the ISO 26000 standard recognised in 2010 by the International Standardization Organization (ISO). Corporate social responsibility is defined there as the organisation's commitment to include social and natural environmental aspects in the decision-making process and to take responsibility for the impact of decisions and activities.

The concept has four dimensions: economic, legal, ethical and philanthropic. The economic dimension, considered to be basic, results from the fact that creating economic value is necessary for both the company and society. The legal dimension means the need to comply with legal norms and regulations. At the same time, the enterprise should be guided by business ethics and, if possible, a willingness to undertake philanthropic activities. Common elements of understanding CSR include a) the voluntary

nature of actions taken by enterprises, b) the implementation of activities that improve social well-being and the condition of the natural environment, c) the inclusion of non-economic objectives in the activities of enterprises, and d) the extension of business activities beyond the interests of owners and shareholders, taking into account the company's impact on other stakeholder groups (Kudlak, 2018).

Specific areas in which socially responsible enterprises should take action include corporate governance and behaviour towards employees (internal stakeholders), business integrity (contractors and clients), as well as environmental protection and social involvement (external stakeholders not related to the enterprise). The last of these elements is particularly important from the point of view of the impact of economic enterprises on regional and local environments. In this way, the analysis of corporate social responsibility should be treated as an important element of the geography of enterprise (Kilar, 2018).

From a corporate point of view, a common goal of using CSR is to create a positive image for the company, distinguish itself and its products from other companies, and consequently achieve economic goals in the form of reducing costs and making profits by increasing sales (Chi-Shiun, Chih-Jen, China-Fang, Da-Chang, 2010; El Ghoul, Guedhami, Kwok, Mishra, 2011; Reinhardt, 2005).

The subjects of detailed case studies, analyses of the impact of large enterprises on various aspects of local and regional development in Poland, have included Mazurskie Meble International (Dziemianowicz, 1997), GlaxoSmithKline Pharmaceuticals in Poznań (Strykiewicz, 2004), Swedwood in Chlastawa – currently IKEA Industry Poland (Tobolska, 2010), and Exide Technologies and Volkswagen Motor Polska in Polkowice (Tobolska, 2017). These case studies explain the multiplier effects of investments through specific examples; they also show impacts on the social and natural environments that are a part of corporate social responsibility.

#### **THE VOLKSWAGEN PLANT IN BIAŁĘŻYCE NEAR WRZEŚNIA: RESEARCH METHODS, LOCATION FACTORS AND HISTORY**

To learn about the history of the plant and determine the factors behind its location, as well as to obtain opinions on the benefits of Volkswagen's investment in Białężyce near Września for its surrounding areas, in-depth interviews were conducted with representatives of the company and local self-government as a first stage of the research. The first interview was conducted with Daria Lipiecka from the Communication and Compliance Department of Volkswagen Poznań (who then helped to obtain information about sustainable development and social involvement). The next two interviews were conducted with Dionizy Jaśniewicz, starost of Września, and Tomasz Kałużny, mayor of Września, employees of the commune (local level) and powiat (sub-regional level) offices involved in the preparation and implementation of the investment process. The meetings were held in Poznań and Września in June 2019 and lasted from 1.5 to 2 hours each.

In order to examine residents' opinions on the impact of the Volkswagen plant in Białężyce on the development of Września, in the second stage of the research, questionnaires were distributed among holders of driving licenses living in the three largest settlements of Września Land: Września, Nekla and Miłosław. They were conducted in person in June 2019 on a sample of 415 with selection based on age (7 categories),

gender (2) and place of residence (2: the town of Września and the rest of Września Poviát). The sampling frame for individual age and gender groups was corrected for those holding a driving license, information available from the Public Opinion Research Center “*Styl jazdy polskich kierowców*” (CBOS, 2017). Considering the population of Września Poviát, the survey was representative at a 95% confidence level, with a maximum error of 5%<sup>2</sup>.

The last part of the study was to answer the question of whether the geographical proximity of the Volkswagen production plant in Białyżyce and its local involvement resulted in a greater demand for Volkswagen cars among local drivers. It was assumed that since Volkswagen is a recognisable and reliable employer in the Września area, engaging in social initiatives, customers from this area should be more willing to buy cars of this brand. In order to examine this issue, it was asked as part of the questionnaire, and unpublished data on all cars registered in Poland, from the Central Register of Vehicles and Drivers kept by the Ministry of Digitisation, was used as well.

The new Volkswagen Poznań plant was established in Białyżyce, a rural area in the commune of Września in Wielkopolskie Voivodeship, about 40 km east of Poznań. The plant was constructed in an undeveloped area and is a typical *greenfield investment*. Based on information obtained from representatives of Volkswagen Polska as well as commune and poviát offices in Września, general and detailed factors of the plant location were determined. The first ones relate to investing in Września, while the latter ones are closely related to the previously undeveloped area in Białyżyce which was chosen as the investment site (Table 1).

Table 1. Analysis of location factors for the Volkswagen plant in Białyżyce near Września

Group of factors	Specification
General location factors	<ul style="list-style-type: none"> <li>– location in western Poland, close to the border with Germany and hence the German market</li> <li>– proximity to existing Volkswagen plants in Poznań</li> <li>– good transport and communication infrastructure: proximity to the A2 motorway and national road no. 92 (Poznań-Warsaw), railway no. 3 (Poznań-Warsaw)</li> <li>– good preparation and presentation of its advantages under so-called territorial marketing (in the last round Września won the competition against Stargard Szczeciński)</li> </ul>
Detailed location factors	<ul style="list-style-type: none"> <li>– a large, flat area to be developed (for investment and possible expansion of the plant)</li> <li>– within the established Września Economic Activation Zone and covered by a local spatial development plan</li> <li>– subzone of the Wałbrzych Economic Zone “Invest Park” (358.2 ha) – property tax exemption for 5 years, CIT relief</li> <li>– specific conditions negotiated with offices and businesses, including infrastructure development and utility supplies</li> </ul>

Source: author based on information obtained from representatives of Volkswagen Poznań and local authorities

<sup>2</sup> Interviews were conducted by master’s students of spatial planning at the University of Adam Mickiewicz in Poznań during fieldwork on “investments in spatial development” from 24 to 28 June 2019. In order to conduct interviews with relevant target groups of respondents during field research, a Google form and spreadsheet – tools available via the Internet – were used. Students, after conducting a survey via a mobile phone with access to the network chose from the list the profile of a respondent (e.g. a man, aged 18–24, residing in Września). In this way, it was possible to search for other respondents with specific characteristics.

Free, undeveloped land for investment was waiting for the investor in 2010–2013; in 2014 it was given a prize in the competition “*Grunt na medal*” organised by the Polish Information and Foreign Investment Agency S.A.<sup>3</sup> On 18 April 2014 Volkswagen was officially announced as the investor who had chosen to invest near Września. On 13 November 2014, the ceremony to begin construction of the new factory took place, and on 24 October 2016, the factory was officially opened. Such a large investment from start to the opening of the production line was completed in just 24 months indicating its speedy and efficient execution (Fijałkowski, 24/10/2016; Kaczyńska, 21/10/2014). After the opening of the new plant in the commune of Września, Volkswagen Poznań became the largest car manufacturer in Poland: in 2018 it produced 266 819 cars of models such as Caddy, Crafter, T6, MAN TGE 9. The company is also the largest employer in Wielkopolskie Voivodeship, employing over 11 000 people<sup>4</sup>.

### BENEFITS OF INVESTMENT FOR THE SOCIAL AND NATURAL ENVIRONMENTS: OPINIONS OF REPRESENTATIVES OF VOLKSWAGEN POZNAŃ AND LOCAL GOVERNMENTS

The benefits of investment for the region mentioned by Volkswagen representatives can be divided into activities for the local community and activities for the natural environment (Table 2, some indicated also by Wojtyra, 2019).

Table 2. Examples of impacts of Volkswagen in Białeżyce on its surroundings

Activities for the region	Examples
activities for the benefit of the local community	<ul style="list-style-type: none"> <li>– Support for educational and research institutions, including the establishment of the Center for Research and Development of Modern Technologies in Grzymysławice, co-financing the Center for Vocational Education in Września</li> <li>– Revitalisation projects in the villages around the factory and in Września, e.g. revitalisation of community centres, construction of a football pitch in Chocicza Wielka</li> <li>– Annual organisation of festivities and local celebrations as well as cultural and sporting events, e.g. harvest festivals, football matches, <i>Akcja Zebra</i></li> <li>– Occupational therapy workshop sponsorship</li> <li>– Systematic dialogue with residents about problems arising from the operation of the plant and the expectations of the community: meetings are organised twice a year</li> <li>– Construction of a new headquarters of the State Fire Service in Białeżyce</li> </ul>
activities for the natural environment	<ul style="list-style-type: none"> <li>– Implementation of ISO 14.001 and ISO 50.001 environmental standards</li> <li>– Tree planting program in the vicinity of the plant (25 000 in 2018 and a further 18 000 by the end of May 2019)</li> <li>– Heat recovery from foundry processes for heating nearby buildings and the hospital</li> <li>– Program to raise environmental awareness among employees and suppliers through projects such as “May – environmental protection month”, forest cleaning, action to reduce the amount of plastic waste</li> <li>– <i>Think Blue Factory</i> program – by 2025 a 50% reduction in energy consumption, CO<sub>2</sub> emissions, volatile organic compound emissions, water and waste consumption (compared to 2010), including:             <ul style="list-style-type: none"> <li>▪ financing investments that increase energy efficiency (“Energy Independent Factory”, “Electromobility” programs) and water-saving; indicators monitored monthly and converted into a unit of the manufactured product</li> </ul> </li> </ul>

<sup>3</sup> A joint-stock company owned by the Treasury, since February 2017 the company has changed its name to the Polish Investment and Trade Agency and has joined the Polish Development Fund Group.

<sup>4</sup> Detailed information on this subject can be found on the website of Volkswagen Poznań at <https://volkswagen-poznan.pl/pl/fabryki>.

activities for the natural environment (cont.)	<ul style="list-style-type: none"> <li>▪ “blue grants” – competitions organised in cooperation with <i>Fundacja Nasza Ziemia</i>, the purpose of which is to prepare and implement activities for the protection of the environment and ecological education, raising awareness of the need for rational use of resources</li> <li>▪ cooperation with the University of Life Sciences in Poznań in developing the action plan for reducing dust and CO<sub>2</sub> emissions</li> </ul> <p>– Cooperation with <i>GOAP</i> – Inter-municipal Association “Waste Management of the Poznań Agglomeration” in the scope of pro-environmental action regarding the reduction of plastic waste</p>
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Source: author based on materials obtained from the enterprise

For its activities in April 2019 the Volkswagen-Poznań plant received the “*Biały Listek CSR*”, an award for the most responsible and socially engaged companies, awarded by the weekly *Polityka*, Deloitte Consultants and the ‘Responsible Business Forum’.

Local governments recognise many of these positive effects of investments. In addition, they also mention numerous economic benefits that were or will be possible as a result of Volkswagen’s investment:

- Development of the labour market and elimination of unemployment in Września Powiat – the created jobs are enough for all who want and are able to work, VW employees commute to the plant from the entire area of the Wielkopolska region,
- Establishment of new enterprises in the Września Economic Activation Zone producing components for Volkswagen in Białężycze: Benteler Automotive Poland Ltd. (automotive constructions, engines and exhaust systems, chassis components and other components), Sitech Ltd. (metal frames for car seats), Inalfa Roof Systems (roof systems for premium cars)
- Development of multi-family housing – new development investments in the town
- The development of the service sector to meet the needs of the population – fueled by income generated in connection with new employment
- Expected tax revenues from property taxes (after a period of exemption in the area of Września Economic Activation Zone) and increasing revenues from CIT and PIT income taxes.

These statements indicate the occurrence of positive multiplier effects of the investment both through demand (new businesses) and income resulting from the increased earnings of employees. However, the local governments also noticed some disadvantages resulting from the start of the operation of such a large plant. Increased traffic is becoming a problem, especially during shift changeovers. To solve the situation, from February 2019, an eastern ring road connecting national roads nos 15 and 92 is being built (by the way, it was a pity that construction could not have started before the plant began operation). Local employers also note employees leaving previously existing workplaces in Września for Volkswagen, as well as an influx of new residents, including from outside Września Land.

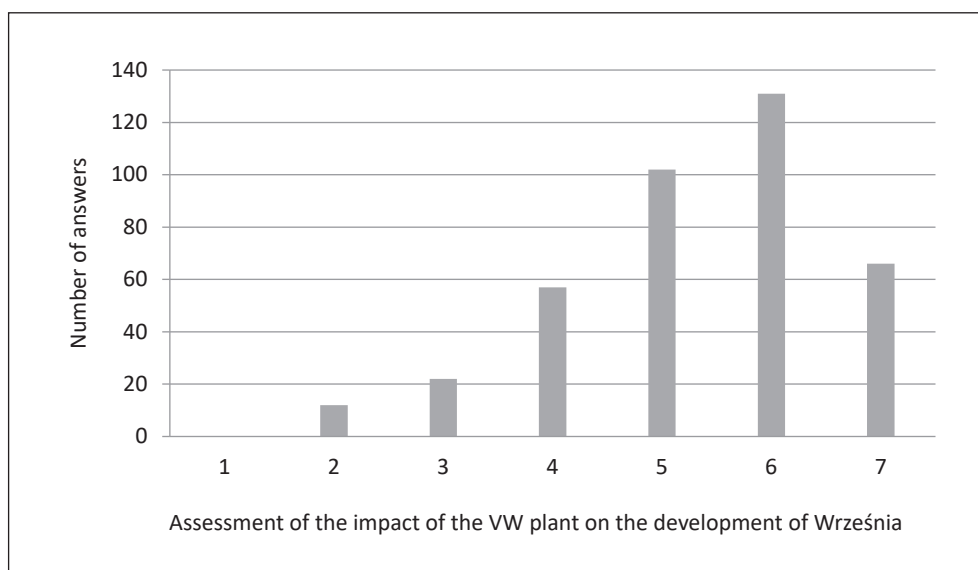
## THE IMPACT OF VOLKSWAGEN INVESTMENT ON THE DEVELOPMENT OF WRZEŚNIA IN THE OPINION OF RESIDENTS

Of the 415 respondents, the vast majority of 410 (98.8%) stated that they knew about the Volkswagen plant in Białężycze near Września and answered further questions. Ten per cent were employees of the plant or had one in their household, 43% declared that one of their friends or extended family worked there, and 47% had no connection.



In one of the questions, those participating were asked to assess on a scale of 1 to 7 the impact of Volkswagen's investment on the development of Września (where 1 meant a highly negative impact, 2 – negative, 3 – rather negative, 4 – neither positive nor negative, 5 – rather positive, 6 – positive, 7 – definitely positive, Fig. 1). Then, the respondents were to provide – in an open question – a justification for their assessment, i.e. why they assess the new plant positively, neutrally or negatively. The results are shown in Table 3.

Figure 1. Assessment of the impact of Volkswagen investments on the development of Września – survey results among residents



Source: the survey of residents (n = 410)

Table 3. Explanations of positive or negative assessments of the impact of Volkswagen investments on the development of Września – survey results among residents

Positive influence	No of answers	Negative influence	No of answers
Jobs/decrease in unemployment	211	Heavy traffic/traffic jams on the streets	65
Local development, investments, also financed by VW	47	Price increases	8
Development of road infrastructure	43	Too many new residents	8
Recognition, the prestige of Września	19	Noise	7
Development of the service sector/increase in the number of service customers	14	The outflow of employees from other companies	3
New residents, housing development	14	No parking spaces	3
Opening new companies	13		
Tax revenues	12		
Further development opportunities	9		
Increase in earnings of residents	5		

Source: The survey of residents (n = 410)

The average assessment of the impact of Volkswagen on the development of the Września is 5.32. As many as 66 respondents indicated a very positive effect of the investment on local development (7), and 131 – positive (6). At the same time no one indicated a very negative impact (1), and only 12 a negative one (2). Such a statistical distribution of responses (positive skew) indicates the importance of the investment for the development of the area. It also points to the fact that VW is seen as a good and reliable employer.

Among the positive aspects of the investment for local development mentioned by residents, special attention should be paid to new jobs or a decrease in unemployment. This aspect was indicated by 211, that is over half of the respondents. Other, often mentioned benefits are the noticeable development of the town and powiat – municipal investments, as well as the development of road infrastructure. Some respondents, however, see the negative side among which the most visible, and burdensome to residents, is the increased traffic and traffic jams on the streets. This element was indicated by 65 respondents. Other negatives were mentioned only by individuals. It should be noted that the number and diversity of the positive effects are greater than the negative.

#### INVESTMENT AND DEMAND FOR VOLKSWAGEN CARS AMONG DRIVERS IN WRZEŚNIA POWIAT

In another question, the respondents were asked to name the brand of car they were currently using and 14% of respondents answered they used a Volkswagen. This indicates that proportions of makes of car driven in Września Powiat are very similar to the car market in Poland as a whole (as of 31/12/2019 there were 2.7 million registered Volkswagens in Poland, which is 13.1% of all cars registered in Poland: passenger cars, trucks and special vehicles).

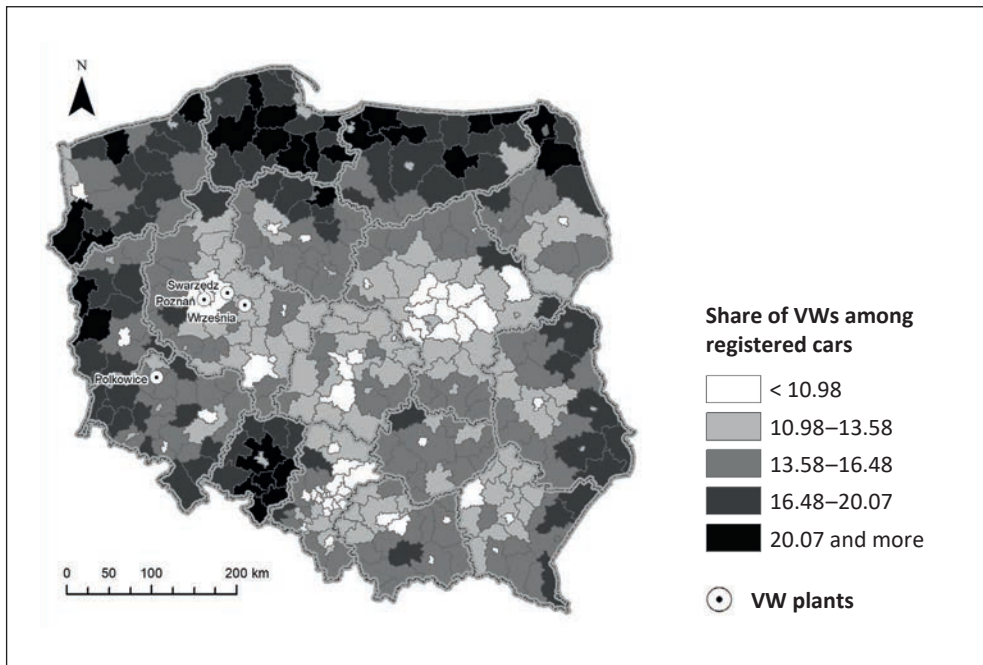
In another question, the respondents were to answer whether the Volkswagen plant in Białeżyce influenced their intention to purchase a Volkswagen car, 389 (92.4%) answered “no”, only 28 (6.8%) answered “yes”, and 3 – 0.7% “I don’t know”. The results indicate that the location of the plant near Września and the benefits that the inhabitants perceive from this investment for local development do not translate into an increase in interest in buying Volkswagen cars (especially since most cars bought in Poland are used). This is confirmed by data on the share of Volkswagen in all registered cars by powiat.

As shown in Figure 2, the share of Volkswagen in all cars registered in Września Powiat, as well as Poznań and Poznań Powiat, where two other Volkswagen plants are located, is relatively small.

Interestingly, however, data on the sale of new cars in 2017–2019 confirm that in Poznań, Poznań Powiat and Września Powiat, as well as several neighbouring poviats in Wielkopolskie Voivodeship, Volkswagen was the best-selling passenger car with the largest market share (Figure 3).

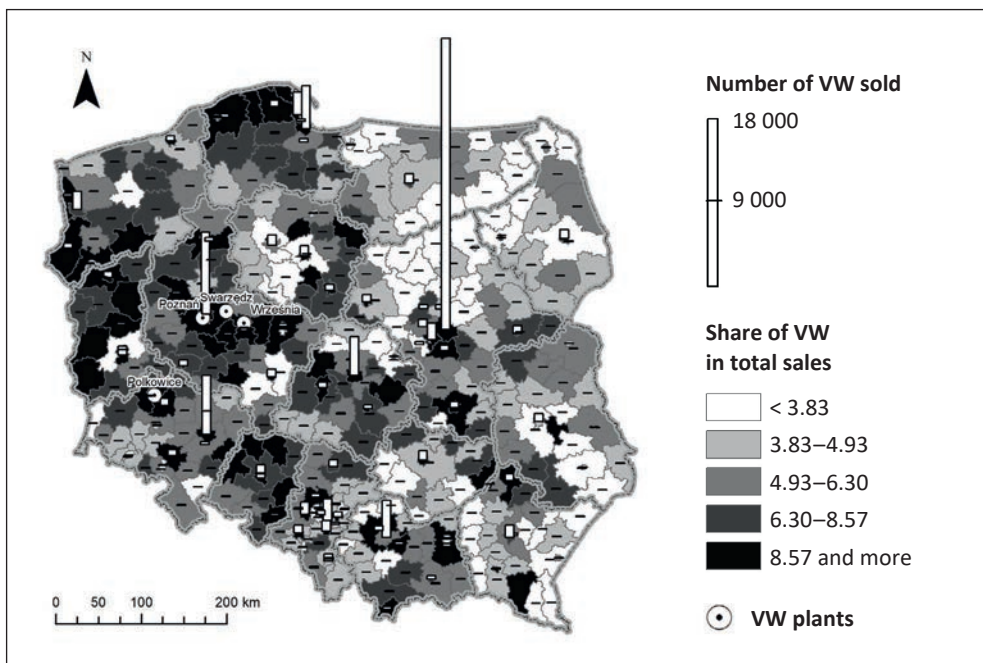
Volkswagen was also the best-selling car in Polkowice Powiat in Dolnośląskie Voivodeship, where Volkswagen Motor Polska sp. z o.o. is located, which is another company of the Volkswagen Group, responsible for the production of diesel car engines. On the one hand, discounts or preferential conditions for the purchase of new cars for employees may have an impact on above-average local new Volkswagen sales. On the

Figure 2. The share of Volkswagen cars in all registered cars in poviats (subregions) in Poland



Source: author based on the Central Register of Vehicles and Drivers

Figure 3. Sales of new Volkswagen cars in poviats (subregions) in Poland in 2017–2019



Source: author based on the Central Register of Vehicles and Drivers

other hand, the data also show that the large investment and commitment of the company to local development creates interest in the inhabitants of nearby areas, and this translates into greater local demand for the company's products.

## SUMMARY AND DISCUSSION

Information from the representatives of the investor, Volkswagen Poznań, indicates that the company, apart from its essential activity, undertakes initiatives and activities beneficial for the surrounding social and natural environments. Interviews with local governments confirmed the occurrence of multiplier effects of the investment: both in demand (increase in demand for cooperating enterprises) and income (in the form of an increase in profits of service outlets in the Września area). Questionnaires conducted among the residents showed that the reception of the analysed investment is positive. Besides, numerous new jobs, the development of road infrastructure and other accompanying municipal investments are particularly positively assessed. However, some respondents stated that as a consequence of establishing such a large plant, traffic jams appeared in the town, especially during the time of shift changeovers at the factory. This was ascribed to people who did not live in Września but only passed through the town while commuting. Therefore, the investment created new development opportunities for the Września Land, but also new challenges (as regards communication problems, local self-government authorities accelerated and financed the construction of the Września bypass themselves). A similar dual impact of large investments on regional and local development was demonstrated in other studies on the subject in Poland, e.g. Dziemianowicz (1997), Strykiewicz (2004) and Tobolska (2010).

There are several limitations to the interpretation of questionnaire results. The Volkswagen investment in Września was completed in 2016, hence the time that has elapsed since then is relatively short. Some of the positive results of the plant's operation, as well as greater interest in VW cars, may become apparent after a few more years. Then it will also be possible to determine to what extent the plant has embedded in Września (in accordance with different dimensions – see Domański, 2004, Stachowiak, 2011). At the same time, statistical data indicate that Volkswagen's large investment has contributed to greater local demand for new cars, resulting in an above-average sale of Volkswagens in Września Poviát in 2017–2019. This information is important (for Volkswagen but also for other large enterprises) because it shows a real local effect of investments and activities undertaken for the benefit of the local community.

When analysing the issue of corporate social responsibility, it is impossible to ignore the strategic decisions or mistakes that can affect society and the overall image of the company. By decision of the Director of the Office of Competition and Consumer Protection (DOZIK-2/2020 of 15 January 2020, when the publication was not legally binding), Volkswagen Group Polska was fined PLN 120 million for infringing consumer rights caused by the installation of software in 2008–2016 for manipulating emissions. Unfair market practices resulted from misleading customers in promotional materials and approval documents: the actual level of exhaust emissions was higher than declared. Also, in 2020, when this publication was sent to print, the COVID-19 virus epidemic was developing in Europe, including Poland. Due to redundancies and suspended industrial production, this will certainly negatively affect the global car market.

Both of these elements will probably limit the activities of Volkswagen Poland for the benefit of local communities as part of corporate social responsibility.

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**Wojciech Dyba**, PhD Eng, Adam Mickiewicz University in Poznań. Assistant professor in the Faculty of Human Geography and Planning. He held scholarships of Adam Mickiewicz Foundation and Foundation for Polish Science. He was a fellow at the University of Padua and at the University of Tübingen. His main research interests include economic geography (clusters, location of economic activity, innovativeness, globalisation) as well as regional and local development (development strategies, spatial development plans).

**ORCID:** <https://orcid.org/0000-0003-1554-5938>

**Address:**

Adam Mickiewicz University in Poznań  
Faculty of Human Geography and Planning  
Department of Economic Geography  
ul. Bogumiła Krygowskiego 10, 61-680 Poznań, Poland  
e-mail: wojtek@amu.edu.pl