

Title: HIDDEN CHAMPIONS OF POLAND

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Abstract

Poland is the country with strong entrepreneurial spirit. The Hidden Champions (HC) performance has been closely related to political and economic breakthrough changes: the fall of communism in 1989 and the transition from centrally planned to market economy with the emergence of private small businesses focused on domestic market; the accession to European Union in 2004 with new perspectives for HC growth due to opening the international markets, financial, educational and institutional support, legal regulations and FDI inflow with new technologies. Liberal democracy gave an air to the wave of HCs becoming the market players in almost all industries. The majority of them has been taken over by the large international companies thus providing the right scale for their high performance or grew up to the Full Champion category. In the Global Competitiveness Index, Poland moved from 57 in 2011 to 37 position in 2018. Polish HCs build their position using strong partnerships with suppliers and customers. Their competitive position is weaker than leading Western companies due to Poland's lower business culture and complexity of regulations increasing the transaction costs and business risks. HCs go international with their products and services and are masters in securing their access to scarce resources. They offer strongly innovative products based on their own R&D, develop their brands, and new distribution channels (e-commerce, digital marketing). Poland is one of the world's leaders in the business-services sector and a friendly environment to start-ups.

Overview

Official name: Republic of Poland (POL)

Type of government: democratic with the Prime Minister as the head of government, and the President is the head of state.

Population in 2017: 37.98 millions

Land area: 312.7 thousand sq. km

History

1989 – the collapse of communism system in Poland and the beginning of social, political and economic transformation from centrally planned economy to market economy

1999 – access to the The North Atlantic Treaty Organization

2004 – access to the European Union

1. INTRODUCTION: CONTEXT AND HISTORY

Poland from the fall of communism in 1989 has come a long way of political, economic and social transformation from a centrally planned economy to a market economy. According to Index of Economic Freedom Poland moved from the group of countries with limited economic freedom in 1993 (world rank 60) to the group of countries with average economic freedom in 2018 (see Gwartney et al., 1996; Miller et al., 2019). In May 1, 2004 Poland has joined the European Union and became a full member. Polish accession to the European Union required undertaking by Polish government a number of actions aimed at adapting Polish formal institutions, such as formal regulations or law to the European Union law system.

Moreover, the quality and power of formal institutions matter for productive, unproductive or destructive entrepreneurship (see, for example, Estrin & Mickiewicz, 2010; Levie et al., 2014;

Williams et al., 2017), as well as the institutional support has a crucial influence on entrepreneurship activity (Baumol, 1990; Williams et al., 2017; Godlewska & Morawska, 2019). That is why Poland participates in active regulatory competition between its own legal system and the legal systems of other Central and Eastern European countries. The aim of such rivalry is to create an increasingly competitive regulatory environment which will allow to strengthen the competitiveness of Polish business entities on the one hand, and attract economic entities from other countries to Poland on the other hand. To fulfill this aim Poland has introduced, from January 1, 2017, in addition to the basic rate of Corporate Income Tax (CIT) which is 19%, a reduced rate of 15% for small taxpayers (from January 1, 2019 the reduced rate of CIT for small taxpayer is 9% instead of 15%). Relatively small changes of CIT rate in the years 2011-2018 may be associated with a very large tax reduction of CIT rate that took place in the years 1995-2005, when Poland reduced the CIT rate from 40% to 19%. Furthermore, Poland, in the years 2011-2018 has used a number of tax incentives in accordance with the European Union law, in the form of various tax reliefs and exemptions, in order to increase its tax attractiveness, for example by offering the CIT rate reductions from 25% to 50% depending on the region, in which the business is located or the R&D tax relief from 2018 by letting twice certain expenses to be qualified as a tax deductible cost (by including them in the costs and by additional deduction of 100% of eligible costs from the tax base) (EY, 2018; Deloitte, 2019). It is also worth stressing that Poland is one of the most friendly states of the region for start-ups as embryonic forms of future businesses. Start-ups benefit from tax incentives for SMEs in the form of reduced social security contributions for new entrepreneurs, accelerated depreciation on innovative investments and the exemption from the tax on intellectual property when it is in the form of contribution in-kind (Gałagus, Kamiński & Michalak, 2018).

From the entrepreneur's point of view, the predictability and the effectiveness of the national legal system is particularly important (Perry, 2000, pp. 1628-1631). The entrepreneurs, before making a new investment decision, pay a lot of attention to the protection of property rights, because as Demsetz (1967) noted, they are not interested to invest in countries where the fruits of their investments may be taken over by others. Poland guarantees the protection of the property rights and the inheritance rights in its Constitution. However, in the years 2011-2018 Poland according to the International Property Rights Index, in terms of protection of the property rights, decreased its own position from 43 place (world rank) in 2011 to 47 place (world rank) in 2018 (Jackson & De Soto Fellow, 2011; Levy-Carciente & De Soto Fellow, 2018). From the entrepreneur's point of view, the effectiveness of the contracts enforcement is also crucial, which depends, among others, from respecting the rule of law by a given country. The effective process of contract enforcement improves the business climate, accelerates innovation, attracts foreign direct investment and provides tax revenues (Esposito et al., 2014). Poland in terms of enforcing contracts according to the Doing Business Report improved its position from 77 (world rank) in 2011 to 53 in 2018 (The World Bank, 2010; The World Bank, 2019). Furthermore, Poland according to Article 107 section 2 and 3 of the Treaty of the functioning of the European Union and Commission Regulation (EU) No 651/2014, in the years 2011-2018 has used a horizontal, regional and sectoral public aid directed at overcoming business barriers, stimulating the growth of competitiveness and investment attractiveness. Poland, in the years 2011-2017, granted entrepreneurs EUR 11 439.9 millions for employment (state aid EUR 5065.5 millions), research and development including innovation (state aid EUR 2200.1 millions), SME including risk capital (state aid EUR 128 millions) and sectoral development (state aid EUR 4045.3 millions) (European Commission, 2018). In the years 2011-2017, the country has used two aid instruments. The most popular aid instrument were grants for entrepreneurs (80.85%) with total state aid spending EUR 21 332 millions. The second most popular aid instrument used by Poland were tax exemptions for entrepreneurs (17.57%) with total state aid spending EUR 4636.6 millions.

Global economic situation in the years 2011-2018 has been profoundly marked by the crisis provoked by the collapse of the investment bank Lehman Brothers in 2008. The devastating impact of the crisis varied across European countries, therefore it is important to emphasize that until 2012, the Polish economy was one of those European economies that suffered little from the effects of the

global crisis, and undoubtedly Polish economy was one of the fastest-growing economies worldwide pre-crisis and the fastest-growing economy in post-crisis Europe (McKinsey & Co., 2015). This 'crisis resistance' basically resulted from the skillful on-going response of enterprises, households and public authorities to very negative changes in their international environment. All economic actors used their capabilities and resources in a way that in a long perspective supported domestic demand and economic growth. After 2012, the dynamics of economic development were falling, and Poland entered a phase of economic slowdown. In the following years, Poland lost its position of the leader of economic growth in the group of Central and Eastern European countries. Moreover, decreased the pace of catching up with the more economically developed EU-15 countries- while in the first six years of membership in the Union (2004–2010) Poland progressed by 14 development gap points in relation to the EU-15 countries, in the next seven years this development gap decreased only by 9 percentage points. Poland's growth has been based primarily on dynamic exports, strong internal demand, productivity improvements, foreign direct investment (FDI), and the inflow of EU funds- without them the accumulated GDP for the period of its EU membership would be by 2% lower.

Accession to the European Union opened the way to foreign capital inflow. In the years 2004-2018, Poland reported the net inflow of EUR 110,350 billion of direct investments. It was slightly more than net inflow of EU funds. The inflow of foreign capital was accompanied by the inflow of modern technologies, and equally important the integration of Polish enterprises with foreign ones, including international corporations. Thanks to this, very fast growth of export and import was possible. The Polish economy has become more and more open, and today Poland is one of the world's leaders in the business-services sector, with a total of 1,236 (Polish and foreign) BPO, SSC, IT and R&D services centers operating in Poland, employing a total of 279,000 people. Of the 831 companies with their own services centers, 10% (83 investors) were Fortune Global 500 companies (2017). This is reflected by strengthening of the position of Poland in the Global Competitiveness Index, from 57 in 2011 to 37 in 2018.

Nowadays, Polish economy is consequently increasing its share in more modern industries, which develop faster than "traditional" sectors. Manufacturing and trade which together generated about 39% of value added in 2017, remain two largest sectors. In the period 2010-2017 value added increased at the fastest pace in information and communication, business services, finance and insurance activities, manufacturing and transportation, logistics and storage. Thanks to the higher growth since 2010 (44.4%), manufacturing industry is currently dominant over trade (growth: 15.6%) and it accounts for 21% of the total value added.

As far as politics is concerned- the middle point of the analyzed period (2015) is marked by parliamentary elections, which brought a substantive change in the subsequent political and economic strategic choices. The liberal political power has been replaced by the right conservative party, regardless of good economic performance of the country in the years preceding the elections, when human development indices were documenting the extraordinarily encouraging social developments in Poland, such as increased life expectancy for both sexes, significantly lower infant mortality, a boom in educational attainment, and rise of happiness (Czapinski & Panek, 2015; Eurostat, 2016, Markowski & Kwiatkowska, 2018).

Hitherto, the heaviest reforms carried out by current government were related to the education, legal and social systems. The change of the education system at the universal level consisted of the liquidation of junior high schools, and thus a return to the educational situation before Poland's accession to the EU. At the higher education level, according to the government declarations, introduced changes were focusing on excellence in teaching and research activities, therefore looking for more elite education. In turn, legal adjustments were supposed to improve the quality of judicial system, however so far, the relevant EU institutions have been questioning the legitimacy of some of them. This phase of discussion on compliance to the EU legal regulations is still ongoing. The largest share of the society took advantage of reforms in the social system, and direct subsidies for families with children supposing to improve fertility in the country. The declared goal was not achieved, however this money, in short term, contributed to the improvement of the financial situation of many Polish families by reducing child poverty, promoting well- being and inclusiveness (OECD,

2018). Unfortunately, it also contributed to price increases and, consequently, to the rise of inflation in the last two years¹. Together with the recent lowering of the retirement age back to only 60 for women, this will heighten risks of old-age poverty. The current government is also famous for being distrustful of the idea of opening borders to immigrants, which in the current demographic situation may cause even greater shortages in the labor market.

In consequence, Poland is facing many challenges. First of all, its economy remains poor in innovation. The export production in Poland is focused on medium and low technology products, while the share of high technology goods does not exceed 10.6% of total exports (World Bank, 2019). Poland, in contrast to Western countries, has no national champions, i.e., widely recognized brands. The country is considered a supplier of cheap accessories and semi-finished products or is seen as a place where assembly facilities are located because of the relatively cheap and competent labor.

Additionally, Poland is in a very unfavorable demographic situation. This is a common problem for the EU countries; however Poland has one of the lowest fertility rates in the world, and at the same time it has no budget reserves that could alleviate the raising costs of the retirement system. According to the studies conducted by the European Commission and the European Central Bank, the availability of qualified staff (23% of indications) or winning and retaining customers (18.5% of indications) are currently the main problems for the majority of Polish enterprises.

Moreover, the Polish economy remains heavily regulated. This increases the transaction costs for entrepreneurs and in the long perspective may inhibit their development ambitions, including investment effort. Regarding enterprises' investment, although at an aggregate level its size and structure are significantly closer to those of mature, richer economies than to those of emerging economies, Polish entrepreneurs are aware that their level of investment is insufficient, that they relatively rarely use the best equipment/machinery available in their industry (the percentage of companies using state-of-the-art solution available for their sector is one of the lowest in the EU) and that they are increasingly encountering barriers to financing: Poland is among the countries with the highest percentage of companies with unmet financing needs (EIB, 2018).

Despite these challenges, referring to the latest international analysis of the International Monetary Fund, GDP in Poland will continue to grow within 5 coming years. This increase will fluctuate around 3% per year, which is a slowdown in comparison with the last two years, when it was growing around 5% annually. According to the experts this will make Poland in 2024 the 22nd largest world economy (currently is 23) and in nominal GDP it will approach to the top twenty. In this very optimistic scenario, Poland would enter G20 as early as in 2029.

Polish HC build their position using strong partnerships with suppliers or potential customers, to better know their needs. They recognize having weaker competitive position comparing to their Western competitors because of low business culture and complexity of regulations increasing the transaction cost and business risk. They learned how to use the internationalization paths not only for exporting their products and service but also for securing their access to scarce resources. They offer strongly innovative products, very often elaborated by their own R&D units in cooperation with other market stakeholders. They are looking for the ways to strengthen their brands, also through new distribution channels (e-commerce, digital marketing).

Search for Hidden Champions in Poland started from 1999 with Marek Dietl cooperation with Simon-Kutcher@ Partners and his activities within the Polish Capital Fund Jsc providing knowledge and financial support for small and medium sized companies in Poland.² He identified 40 Hidden Champions but only 12 agreed for an interview. In major conclusions the author pointed out their high productivity per employee resulting from high skills of the teams and strong leadership, as main similarities to Western peers. However, they were lagging behind them in profiting from the

¹ According to GUS, (Main Statistical Office of Poland) it is respectively 2,0% in 2017, 1,6% in 2018 and 2,9% in July 2019.

² H. Simon, M. Dietl, *Tajemniczy Mistrzowie XXI wieku. Strategie sukcesu nieznanych liderów na światowych rynkach*, Polish edition, Simon-Kutcher@Partners, Difin 2009. M. Dietl is the author of the 12th Chapter: Hidden Champions in Poland, pp. 409-431).

globalization opportunities and building stronger presence on international arena despite of having relevant potential in their products and services. The limited scale had negative impact on the pace of sales growth. The next investigation took place in 2011 when 41 Hidden Champions agreed for interviews.

During the period 2011-2018, Poland has been undergoing accelerated growth within the European Union framework, benefiting from the EU funds for restructuring, innovation, technology and regional development, what had a strong impact on investment climate and new opportunities for business companies. Even if a company was not a direct beneficiary of these funds it could take advantage of the infrastructure development and openness of the economy for the internationalization and globalization as well as of the relatively large size of internal market and growing demand. This period was an intensive learning of market economy rules as a new type of environment for doing business, corrected by state administrative, legal, social and fiscal policies.

In 2011 research on Hidden Champions 41 companies have been identified in Poland as meeting the criteria of Hermann Simon. Poland with its liberal economic policy created the favorable climate for entrepreneurship expansion. Numerous unprecedented opportunities have been perceived and exploited mainly by small and medium sized companies attempting to catch up with European Union level of development and profit from this unique situation. Polish larger companies, previously state owned or cooperative ones, were heavily restructuring, especially in view of economic crisis in 2009.

The level of competition was low, but the capital needed for investments was insufficient, so initial offerings were relatively low capital intensive and not the highest quality but enabled to raise more own capital and to gain experience for further growth. They represented the whole variety of industries, both traditional and modern ones, such as furniture, software, transportation means, equipment and components for heavy and light industry, food, medical devices and hygiene products. Many of them delivered highly specialized components to large Polish and foreign companies.

In the course of updating in 2018 the information on 41 Hidden Champions identified in Poland in 2011 it was found out that some companies no longer exist, some other grew up and became visible in the public space thus exceeding the category of HC, numerous companies became the part of larger international groups while sustaining operations in Poland. Some other no longer fully meet the criteria of Hidden Champion, but they still should be considered as potential Hidden Champions with respect to relative market conditions in Poland to become the global or regional leader in some industries. The present situation of HCs 2011 group could be classified into six categories: foreign M&A (14), full champions (8), still HCs (5), restructuring (6), bankruptcy (5), unknown status (3).

In the 2018 research sounding 9 new candidates for HC status were investigated, only 7 finally met the H. Simon criteria. The major selection criteria were related to the major global market trends and challenges. The criteria were as follows:

1. The highest pace of growth of an industry. ICT pace of growth amounted on average to 17% y/y (Central Statistical Office data). Cloud Technologies SA and Growbots as early entrants with the innovative technology established strong leadership position as born global companies. They entered the market at the early stage of the industry life cycle and were able to set up new trends in information acquisition, processing and sales. Their high pace of growth attracts new market players but still in view of the global wave of digitalization the demand keeps growing, although the first consolidations are already taking place.
2. Unique quality with high value added due to creative customized solutions. Example: Carlex Design with its limited customized car designs editions. The distinguishing feature was close partnership of the Hidden Champion with the world best automotive companies based on trust and conviction about the high added value by the relatively small company to their offering. Another interesting company from the point of view of innovativeness and business model allowing to stay a relatively small company in tangible business, (not presented in this chapter) is Tenzi, the producer of the portfolio of nanotechnology products based on their

original formulas designed for the automotive industry, gastronomy and hotels and distributed internationally by the network of loyal business partners.

3. World top technology in the niche market represented by Vigo System S.A with its technology excellence in manufacturing High Operating Temperature HgCdTe detectors and Telesto S.A. with its patented technology to atomize liquids into super fine mists for firefighting, dust control, object decontamination and a growing number of other applications.
4. Global leading position in the mass tangible products category. Example: Selena FM S.A. operating in the manufacturing and distribution of chemical products for construction and accessories for DIY segment. There are a growing number of companies working for the construction industry sectors, e. g windows and doors.³

Exhibit 1: Core Economic Indicators for Poland:

	2011	2012	2013	2014	2015	2016	2017	2018
GDP per capita (current US\$)	13893	13145	13781	14347	12572	12431	13861	15424
GDP per capita growth (annual %)	4.96	1.61	1.45	3.40	3.91	3.11	4.80	5.14
Long-term unemployment (% of total unemployment)	nd	nd	nd	nd	nd	nd	nd	nd
Foreign direct investment, net inflows (% of GDP)	3.495	1.471	0.152	3.626	3.154	3.881	2.028	2.054
GDP (current US\$, mio)	528.83	500.36	524.23	545.39	477.58	472.03	526.37	585.78
Exports of goods and services (current US\$, mio)	225.09	222.38	242.82	259.44	236.39	246.37	286.02	323.99
Exports of goods and services (% of GDP)	42.56	44.44	46.32	47.57	49.50	52.19	54.34	55.31
Merchandise exports (current US\$)	188.70	185.37	204.98	220.05	199.12	203.82	234.36	260.61
Merchandise exports to high-income economies (% of total merchandise exports)	83.89	81.94	81.70	83.99	85.61	85.58	85.49	nd
Merchandise exports to developing economies in Europe & Central Asia (% of total merchandise exports)	12.48	13.97	13.99	11.77	9.93	10.26	10.65	nd
Ores and metals exports (% of merchandise exports)	5.04	4.85	4.19	4.02	3.61	3.04	3.18	3.04
Agricultural raw materials exports (% of merchandise exports)	1.24	1.26	1.36	1.35	1.29	1.27	1.16	1.26
Food exports (% of merchandise exports)	10.75	12.02	12.85	12.76	12.86	12.66	13.02	12.89
Fuel exports (% of merchandise exports)	4.85	4.92	4.59	4.05	3.25	2.52	2.48	2.50
Manufactures exports (% of merchandise exports)	78.04	76.84	76.85	77.75	78.86	80.30	79.97	80.16
High-technology exports (% of manufactured exports)	6.62	7.89	8.85	10.25	11.02	11.04	10.89	10.60

Source: World Bank, 2019 <https://data.worldbank.org/>

2. CASE STUDIES OF SELECTED HIDDEN CHAMPIONS

³ Some of them already became the Full Champions, other refused to participate in the research.

2.1 VIGO SYSTEM S.A.

Overview

Address: ul. Poznańska 129/133, 05-850 Ożarów Mazowiecki

Tel: +48 22 733 54 10

Fax: +48 22 733 54 10

Email: info@vigo.com.pl

Web: <https://vigo.com.pl/>

Company information

Industry: Manufacture of instruments and appliances for measuring, testing and navigation (High Operating Temperature HgCdTe detectors)

Year of Establishment 1987 (initially VIGO Ltd.)

Sales Revenues in 2017: € 6.8 mio

Sales Revenues in 2007⁴: € 1.8 mio

Average number of employees in 2017: 91

Brainer(s) behind the company: Józef Piotrowski, Adam Piotrowski,

2.1.1. Nature of market leadership

Market for High Operating Temperature HgCdTe detectors is very concentrated. There are only few competitors with equals shares and power. The success factor is the innovative technology of detectors production due to constant innovation and ability to increase the production power in order to gain higher operational effectiveness.

VIGO System does not have direct competitors on the European market. Two companies from the United States of America and one from the Japan compete with the VIGO System on the global market. The quality and strength of the VIGO brand is demonstrated by the selection of its products by NASA for Mars missions, where the VIGO System detectors detect methane on the Curiosity rover board.

2.1.2. Nature of competitive advantage

The nature of Vigo System competitive advantage is the ability to implement innovative technology into business and ability to modify it due to client's needs. Moreover Vigo System is one of the leader in research projects funding by European Union. Due to this researches Vigo System is now able to move from yearly production of 5 000 pieces of detectors to 100 000.

2.1.3. Core lessons learned on the path to success

The core lesson is constant innovation and strong R+D. As well as improving cost effectiveness of detectors production. For VIGO System, continuous interaction with their client is very important. The company meets them at thematic workshops or visits them in laboratories and their factories. VIGO System in the field of marketing works on the development of the distributor system and improvement of clients relationship management. Thanks to rebranding, marketing campaigns and dedicated sales activities, VIGO System want to create a growth of demand for their detectors.

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2.1.4. Management and leadership development needs

Since 2010, the period of dynamic growth of the company has begun, and since 2014 the process of generational change, among others in the Management Board of the company. Initially, barriers to

the dynamic growth of VIGO System constituted language barriers, lack of delegation skills or lack of project management skills among the research and development staff. There has also been a transformation of the leading research and development staff from engineers to managers who manage several projects in the same time horizon. Recently, VIGO System introduced programs such as the Leader Academy and the Talent Academy, which are designed to motivate, reward and support the further development of the Company's Leaders and create their future successors.

2.1.5. Financing and regulatory environment development needs

Vigo System need to participate more frequently in the photonic industry fairs, particular on the US and Asian markets, establish stronger relationships with existing clients; prepare strategy for expansion into new markets; make organizational changes, including the introduction of a new bonus system for sellers of their equipment's; review efficiency of the existing sales network. In order to increase the production power Vigo System is in the process of construction of a new production plant in Ożarów Mazowiecki, which will enable cost-effective mass production of up to 100,000 detectors annually. Vigo System in order to develop needs a stable law environment, strong property rights protection, tax incentives for more R+D and easier access to European Union funds or external funds for financing constant R+D as well as for financing building new production plant.

2.1.6. Competitors, market situation in the sector and the company's competition position on the market

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Plans for the future: Increasing the scale of detectors production from 5,000 pieces to 100,000 pieces annually, will allow to achieve economies of scale and, consequently, increase the operational efficiency of the company. The increase of VIGO System production capacity will be related to the increase in the intensity and scope of sales activities to create an appropriate demand for increased supply of detectors. This increase is related to investments in the machine park, new technologies but first of all in the skills and abilities of technical staff and the team's attitude towards mass production of components adjusted to the needs of VIGO System clients.

VIGO System has been actively cooperating since 2002 with the Polish Military University of Technology in conducting joint research and development works. However, when it comes to implementing the technology into business, such cooperation as between VIGO System and the Polish Military University of Technology is only one of the few examples of effective scientific cooperation in Poland.

2.2. CARLEX DESIGN

Overview

Address: ul. Świerkowicka 41, 43-502 Czechowice-Dziedzice

Phone: +48 32 2101022

Email: www.carlexdesign.com/en/contact

Web: www.carlexdesign.com

Company information

Industry: Manufacture of parts and accessories for motor vehicles (to jest wg NACE)

Year of establishment: 2007

Sales revenues in 2017: N/A

Sales revenues in 2007: N/A

Average number of employees: 75

Brainer(s) behind the company: Damian Skotnicki, Roksana Skotnicka

2.2.1. Nature of market leadership

Carlex Design holds the leading position on the world market in the design and production of limited car editions (up to 1000 per model) for the renowned global automotive companies. Carlex Design focuses on complex design and production of car interiors, body kits, external car elements and modifications of standard solutions. Company is the global “number 1” producer of such limited series of Mercedes X-Klasse – based vehicles as “EXY”. Carlex Design has a status of 2nd level modifier for Daimler and Ford and converter for Nissan. Altogether it offers modified editions for the 6 most recognized brands. Carlex Design embraces both interiors and exteriors. It has broad global customer service structures dedicated to different segments. It produces limited series of vehicles of both own editions as well as in partnerships with large manufacturers. Limited editions are created directly for and under the brands of importers and modifiers. Carlex design also produces parts to the 1st line of car manufacturers.

2.2.2. Nature of competitive advantage

The major source of Carlex Design competitive advantage is creativity and uniqueness of the solutions offered to clients in shaping car interiors and exteriors upon to their preferences and dreams. Costs are less important than customized differentiation. Their offer appeals to rich clients who care for their image of prestige and originality. The prerequisite for the successful delivery of such solutions is the profound knowledge of standard models construction and technology of such luxury automobiles as Rolls Royce Ghost, Lamborghini, Mercedes 300S or Dodge Challenger Hellcat., what requires the reliability, close cooperation and trust with large original car manufacturers. The company also offers total refurbishing of the standard models. Carlex Design export sales amount to 75% of their total sales and the majority of their clients come from such countries as Germany, South Korea, Australia, New Zealand, Canada, Russia, the Netherlands, France, Spain, Portugal, Belgium, Denmark, Austria, Liechtenstein, Luxembourg, Monaco and Andorra.

2.2.3. Core lessons learned on the path to success

The segment of luxury seeking clients requires a specific approach to every detail. The first part of it is the understanding of the customer needs, preferences and dreams, as well as the newest fashions, trends and technology innovations. The second part relies on creativity of designers and their knowledge of all available materials to make an impression, while the third one is the disciplined work-out of the final version of every vehicle. Without the mastery of the whole process management and delivery the final solution may appear disappointing.

Also the company environment should make a strong impression of elegance, pleasure, comfort and confidence on potential clients visiting the company site or any of the showrooms in Wales, Germany, Finland and South Korea. The company demonstrates the collaborative culture of a family company.

In designing the limited editions of cars for any of the top leading automotive companies the close cooperation is essential to take into account all important contingencies and likely market changes. Competitive advantage of Carlex Design is fast delivery of a limited series. From design to finished product it does not exceed 30 weeks, what corresponds with the market pressure on time.

2.2.4. Management and leadership development needs

In view of growing competitive pressures and rising customer expectations the company needs to provide regular training to the whole staff aimed at sustaining and developing their skills up to top performance levels. The continuous care for increasing the competences of the management staff and company leaders should be provided to follow up to new knowledge and market trends with growing strain on top standards.

2.2.5. Financing and regulatory development needs

The major concern related to the Polish government and the European Union regulatory environment is the pace of changing law and tax obligations of companies. Business expects more stability to be provided at least in the middle-term perspective to be able to introduce changes aimed at healthy adjustments and full compliance.

2.2.6. Competitors, market situation in the sector and the company's competition position on the market.

The Carlex Design company systematically participates in the business missions and industry-related trade fairs and exhibitions. They provide the best opportunities to analyze the progress and to update the information on the state of the automotive industry, and the early signals of change. Company attempts to delineate its own development paths taking into consideration innovations in the area of technology, changes in legal standards and regulations related for instance to the environmental protection. Each of them has or will have in the near future the strong impact on the company growth paths and modeling of their offer and performance management.

2.3 CLOUD TECHNOLOGIES S.A

Overview

Address: ul. Marszałkowska 89

00-693 Warszawa

Tel: +48 22 5353050

Fax: N/A

Email: biuro@cloudtechnologies.pl

Web: www.cloudtechnologies.pl

Company information

Industry: Information service activities

Year of establishment: 2011

Sales revenues in 2017: € 16.8 M

Sales revenues in 2007: company did not exist

Average number of employees in 2017: 55

Brainer(s) behind the company: Piotr Prajsnar, Łukasz Kapuśniak, Maciej Sawa

2.3.1. Nature of market leadership

Cloud Technologies is number 1 in Europe in the niche market of big-data profiling services for internet advertising companies. Cloud Technologies competes and cooperates in data exchange with other global companies from the same industry sector. Its leading position in the European market resulted from the early entry to this new emerging industry and constant following the market growth trends. Cloud Technologies continuously has been upgrading its products, service portfolios with technologies and algorithms modelling based on machine learning and artificial intelligence, designed for mobile devices and using the elements of Internet of Things. Company focuses on companies being the high growth market potentials to create value for its own and their shareholders. It does not compete with the world global leaders in the broad cloud computing industry, such as Amazon Web Services (AWS), Google Cloud and Azure.

2.3.2. Nature of competitive advantage

Company from its origins pursues the global strategy of growth based on unique competences in big-data cloud computing using anonymous information from the internet and the most advanced tools of the digital economy. The sustainable competitive advantage can be attributed to integration of two aspects of competitive leadership: economies of scale typical for the broad ICT platform solutions and uniqueness of their offering which is due to high digital and business competences of the company leadership and staff. It is demonstrated in intelligent data acquisition and processing.



Early entry to the market enabled the long and deep learning of the customer needs, attracting skilled staff, building relationships with the financial community on the New Connect market of the Warsaw Stock Exchange. It is one of the bases of competitive advantages over new start-ups. Cloud Technologies has been well prepared to play the role of consolidation centre, what in turn enables further systematic expansion of the operations based on scale and synergy.

Cloud Technologies strengths can be attributed to technology development, strong team, leadership and unique know-how in data acquisition. What differentiates the company on this more and more competitive market is, first of all, the high quantity and quality of data, scale and scope of operation, relative costs and good market reputation. Company is attracting the attention of global leading companies searching for the transformation paths of their business models and new partners to prosper in the disruptive era of digitalization.

2.3.3. Core lessons learned on the path to success

Being the early entrant to the emerging industry allowed the company for systematic learning process which never stops in view of dynamic global data market growth and its constant evolution with new market players and business models. Technology has been from the very beginning the heart and soul of the company model of action in value creation. To receive the funding from the stock exchange they have to demonstrate the solid business foundations and perspectives for further growth. Energy and education of the young company cadres allowed to build the culture of entrepreneurship and responsibility for the company growth through delivering satisfaction and value to customers. However, the company has to face the impacts of legal business environment change such as the general regulation on private data protection, which although directly does not affect the company model of doing business, in practice creates new resistance to share data, restricts the direct contacts and reduces trust. Cloud Technologies worked out their solution to reduce these tensions.

2.3.4. Management and leadership development needs

Networking, flexibility and efficient decision making are the key success factors in the ICT industry, where the company operates. The market is relatively small and young but fast growing. Sustaining the working good relationships with key market stakeholders requires top attention. Company should be prepared to flexible, agile adjustments to changing needs to adequately design its own R&D activities and successfully implement new solutions to the market.

2.3.5. Financing and regulatory development needs

Personal data protection is one of the most important legal regulations in the ICT business. They should be crystal clear. The company activity is in data processing of the Internet users and the leading global positioning among the suppliers of such data commits the company to respect the privacy of these users. That is why in their wholesale base of data only the anonymous data are offered, what is the strategic priority of compliance to new regulations. The company carefully monitors the behavior of their business partners and competitors. Although General Data Protection Regulation (GDPR) introduced in May 2018 does not directly affect the company business, however it has the strong impact on the Internet advertising market, where the company operates. Present legal environment is very dynamic with GPRD and actually created new regulations, such as e-Privacy and California Consumer Privacy Act (CCPA). Such radical changes although being valuable initiatives aimed at standardization and harmonization of private data protection create a sort of chaos. The whole market needs clearer guidelines on their implementation.

2.3.6. Competitors, market situation in the sector and the company's competition position on the market

Market environment

Everyday Internauts generate 2.3 trillion bites of data and their pace of growth will accelerate alongside with the development of market of connected devices with the Internet, i.e. IoT, Internet of Things⁵. Every minute Internauts from all over the world open millions of pages and undertake millions of micro actions, e.g. placing 55 thousand photos on Instagram, stream 644 hours of movies on the Netflix, run 231 thousand conversations on Skype – and this is only a small part of daily generated digital information.

Only in 2019 the value of the global digital data market will reach the level of 26 billion USD.⁶

Information on interests and intents of Internet users are the driving forces of the online advertising. Magna Global⁷ predicts that advertising revenues will grow in 2019 for the tenth consecutive year to reach \$600BN (Ibidem). The fastest growing are digital ad sales. They will grow by +14% having reached a 52% market share at the end of last year.

The behavioral data are first of all used in digital advertising in the programmatic model, which has been constantly growing. In Europe already 70% is realized in the display advertisements, while in the USA it reaches the level of 85%.⁸ In Europe the value of the programmatic market in 2018 amounted to 16,7 bn EUR⁹, i.e. grew up by 33%. Data Management Platforms (DMP) are used to run the campaigns in the programmatic ecosystem. They enable data collection from all resources to achieve the complete picture of a client. It is forecasted that DMP platforms market will grow at 20% y/y in 2018-2023.

The Cloud Technologies market grows and develops at the high pace. Research results show that even 68% of marketers use the data from external suppliers to better understand their clients. The market observations show the growth of investments in data and in the programmatic model followed by the consciousness and skills of marketers in their use of digital data, what is an optimistic forecast for more effective data based advertising campaigns.

Competitive environment

Cloud Technologies in view of its unique business model does not have direct competitors. They can be distinguished in relation to the contexts of specific activity areas, products and services. The specificity of the online advertising market is co-competition what means that the majority of competitors are at the same time contractors. Taking into account the way of data acquisition, analysis, processing and sales the direct competitors for the DMP services and data exchange are: Lotame Solutions, Inc., Eyeota, BlueKai, Inc. and Salesforce.com, Inc.

Market position

The leading position of Cloud Technologies is based on its unique business model, unique strategic assets developed in the company from its start, i.e. global base of anonymous data of Internet users, as well as proprietary technologies of data integration, management, and optimization of advertising campaigns in Internet. The unique staff competences, relationships, contracts and technology integration with important partners and editors in the global advertising ecosystem constitute the solid base for the Cloud Technologies positioning on this modern, attractive and highly competitive market.

2.4. GROWBOTS

Overview

Address: ul. Hoża 51; 00-681 Warszawa, Polska

⁵ <https://www.forbes.com/sites/bernardmarr/2018/05/21/how-much-data-do-we-create-every-day-the-mind-blowing-stats-everyone-should-read/#2ae0203a60ba>

⁶ Report: Global Data Market Size 2017-2019, On.Audience.com

⁷ [Magna Advertising Forecasts, Update 2019, https://magnaglobal.com/magna-advertising-forecasts-summer-2019-update/](https://magnaglobal.com/magna-advertising-forecasts-summer-2019-update/)

⁸ US Programmatic Ad Spending Forecast 2019, eMarketer

Tel: (925) 237-0222

Fax: N/A

Email: greg@growbots.com

Web: www.growbots.com

Company information

Industry: advertising and advisory services (based on the ICT platform)

Year of establishment: 2014

Sales revenues in 2017: € 2.7 mio

Sales in 2007: company did not exist yet

Average number of employees in 2017: 73

Brainer(s) behind the company: Grzegorz Pietruszyński, Adam Mazan, Łukasz Deko

2.4.1. Nature of market leadership

The company was established at the beginning of 2014 and started to qualify as a Hidden Champion at the beginning of 2016 when it gained the number 1 position in the world in software development and services for sales optimization based on the SaaS solution (Software as a Service). The company market share is larger than the one of its two major competitors from the USA (Apollo, Growlabs). 90% of the exports of Growbots go to the USA market. Although the company started business in 2014, it needed only two years to increase employment to 50 persons and achieve the monthly sales growth of 25%. Within this period, they became independent from the VC capital and attractive to innovative investors in the technology sphere. A 1200% growth rate of sales in 2016 helped to build new functionalities to the system and to set up three offices: in Warsaw, San Francisco and Cleveland.

2.4.2. Nature of competitive advantage

The major sources of Growbots competitive advantage correspond with market development trends and expectations of businesses interested in fast increasing their sales due to automated selling software enabling to reach the potential sales leads from the whole world in real time and at a relatively low cost. Growbots created this possibility through its unique technology of big data mining and original AI, which allows to profile the search and thus saving time of sales force thanks to higher response rate. Data is of excellent quality, and -what is very important- the company is well protected against leakage, pays the highest attention to instant updating of databases and software.

2.4.3. Core lessons learned on the path to success

The company founders adopted the realistic assumptions on the business development starting with short-term tactics, basing on Internet and e-mails as the anticipated most universal way of communication. The next assumption was related to limited experience of customers in the use of digital platforms and SaaS solutions in their marketing strategies to elevate the sales level faster and at competitive cost. Creating the positive experience of ease of use of their services and high effectiveness of investments the company was able to grow very fast. The continuous upgrading of technology and expertise based on early and fast learning helps towards outperforming the emerging competition from new start-ups of the 4th digital revolution. Growbots keeps working on sustaining its competitive advantage through investing in human capital and tacit knowledge of people, organizational culture of Google type, and flexible structure beloved by young employees. Processes in the organization are well defined and flexible, company adopts the approach of management by objectives (MBO). Products result from intellectual property rights. This type of company is less capital intensive than traditional (tangible) businesses.

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2.4.4. Management and leadership development needs

The company has the well-established management and leadership team and is not planning to hire new executives.

2.4.5. Financing and regulatory development needs

The company is profitable and has no financing needs from external sources.

2.4.6. Competitors, the market situation in the sector and the company's position on the market

Growbots operates on the sales automation market of the B2B companies. Its customers' portfolio contains 500 clients from 43 countries, but 90% of them come from the USA. On the US market there is around 1,2 million of B2B companies employing over 10 persons each, and the value of the whole market is estimated up to 30 billion USD.

On the SalesTech market there are 950 registered companies (Source: Sales Tech Landscape 2019). Growbots competes with other companies in two categories: databases and communication tools. Discover.org became the leader of the data base market after taking over its largest competitor Zoominfo. In the category of communication tools, the leadership belongs to Outreach and Salesoft. They offer the sophisticated and expensive tools directed to enterprise clients (medium and large companies). On the other end of the market there is a number of companies such as Reply.io, Woodpecker, Seamless.ai, and others who offer simple tools for nonadvanced users at the monthly cost of 100 USD. The only one direct competitor of Growbots offering the all-in-one solution at present is Apollo, while the Growlabs has been sold out.

2.5. SELENA FM S.A.

Overview

Address: Strzegomska Str. 2-4, 53-611 Wrocław, Poland

Tel: +48 71 78 38 290

Fax: +48 71 78 38 291 Email: office@selena.com Web: <http://www.selena.com/en/>

Company information

Industry: Construction chemicals

Year of Establishment: 1992

Sales Revenues in 2017: 119.90 mio

Sales Revenues in 2007: € 1.69 mio

Average number of employees in 2017: 1770

Brainer(s) behind the company: Krzysztof Domarecki

2.5.1. Nature of market leadership

Selena FM SA is one of the world leading producers and distributors of chemical products for construction and accessories for the DIY segment. One of three leading producers of polyurethane foam in the world. Other products: adhesives, sealants, building insulation systems.

2.5.2. Nature of competitive advantage

The nature of the competitive advantage resides in the scale of operations on 3 continents, allowing Selena FM SA to sell its products in 70 countries. This coverage was possible thanks to innovative and high quality unique products, elaborated in close cooperation with the representatives of the construction market. Additionally, the internationalization process (European and non-European markets) made from Selena an attractive place to work for top-class specialists. It allowed also the diversification of geographical risk.

2.5.3. Core lessons learned on the path to success

Growing very fast, Selena FM SA, on its way to excellence, had to learn very fast how to develop global leadership based on professionalism in building value to stakeholders. Top management understood also the importance of permanent self-improvement, leading to continuous innovation in products and processes.

2.5.4. Management and leadership development needs

The main challenge nowadays is the consolidation of the industry both in Europe and worldwide. This consolidation trend means that, on the one hand, Selena has less competitors, but on the other hand, these competitors are getting stronger. The largest players remain on the market.

Changing trends in consumer expectations regarding the quality of products and their composition, are another challenge. Consumers expect organic products based on plant ingredients, while maintaining the quality of traditional products based on petroleum-derived ingredients.

Another challenge is connected with the need for changing distribution channels towards e-commerce and also a necessity of better knowledge and information management capacity. With technology progress there is a possibility of faster commercialization of innovative products, therefore Selena is looking for capitalizing on that.

2.5.5. Financing and regulatory environment development needs

The company has no development needs in terms of financing, because it is characterized by high financial liquidity, which exceeds its current needs. Referring to the regulatory environment the main issue is related to the low quality, even deteriorated recently, of Polish regulations. Low business culture in Poland, resulting from post-communist clerical approach is hindering the company's competitive position face to its competitors from other EU countries.

2.5.6. Competitors, market situation in the sector and the company's competition position on the market

Selena FM SA identified 4 large competitors on the European market and 40 small local competitors. In connection with this, the top manager expressed the need related to the need for implementation of "digital marketing" on a wider scale. Selena wants to take advantage of the opportunities offered by "digital marketing" in order to reach with its offer the contractors of construction works, e.g. small and medium-sized enterprises.

2.6 TELESTO S.A.

Overview

Address: Ludwinowska 17, 02-856 Warszawa, Poland

Tel: +48 (0) 22 648 84 46

Fax: +48 (0) 22 648 87 64 Email: telesto@telesto.pl Web: www.telesto.pl

Company information

Industry: Manufacturing

Year of Establishment 1994 (operation in water mist started in 2003)

Sales Revenues in 2017: € 0.58 mio

Sales Revenues in 20078: € 0.17 mio

Average number of employees in 2017: 25

Brainer(s) behind the company: Zygmunt Łada & Anna Łada

2.6.1. Nature of market leadership

Telesto designs, develops and markets devices and systems that utilize its patented technology to atomize liquids into super fine mists for firefighting, dust control, object decontamination and a growing number of other applications. Telesto offers off-the-shelf devices as well as custom solutions specifically designed to customer requirements. Outside of Poland Telesto relies on partners, who are trained and encouraged to create their own demo-centers where customers are invited for presentations. Partner's engineers are trained to supply local customers with designs. In Poland and in some foreign locations company experts oversee each project from conception and design through installation, testing, handover and service. Telesto is committed to rigorous internal quality assurance and has been certified to internationally recognized standards ISO 9001: 2000 as well as ISO 14001: 2004. Telesto products and solutions undergo international certifications in such institutions and LPCB, BSI, IBS as well as local certifications that are country specific. Company is Number 1 in Europe in these solutions i.e. atomizing liquids into super fine mists. Telesto main exports go to Germany and South Africa (coal mines).

2.6.2. Nature of competitive advantage

The distinguishing feature of Telesto's award-winning dual fluid, low pressure technology is its ability to atomize liquids into extremely small droplets and carry the droplets on an air stream. By adjusting nozzle design, water volume and air pressure parameters, Telesto is able to control the qualities of the mists it generates. Droplets can range in size from 10 microns to 150 microns while mist streams may from centimeters to 12 meters. This unique flexibility allows Telesto to create optimal mist solutions for a broad range of applications.

2.6.3. Core lessons learned on the path to success

Introducing a new product takes time and effort. Telesto has observed the development of this market, with just a few companies starting out and literally fighting to convince the customer to a status where there are visible few competitors, but the customers are more aware of the products existence.

Choosing the right partner for development is crucial. Telesto has relied on partners for international development and since, started out as an innovative company in a pretty conservative market. Telesto partnered with people who seemed enthusiastic about handling something new and "difficult". With time, the company learned that some of those partners were not business wise equipped for success. The reliable partners are key factors of the development of the company.

2.6.4. Management and leadership development needs

In response to this demand the company has launched subsidiaries in Germany and South Africa and is presently growing its presence in a number of additional countries via local partners. Right now, Telesto works with partners and thus it does not create subsidiaries (Germany and South Africa are now operated through partners). Telesto used to offer exclusivity in each market, but now it opens the distribution to various companies and the product range is broad enough to offer partners specialized solutions e.g. only for fire brigades, only for transformer protection, etc. The challenge



right now is to increase profitability through greater share in the realized projects abroad. Telesto seeks key salespeople that have a strong desire to develop sales outside of Poland and Europe and are willing to travel. Those are independent individuals who can create a strategy for a particular country or customer without supervision. Telesto appears on customer's own products as "Telesto Technology inside" logo or statement. In the future the company might attempt to create a unified product that will carry Telesto branding and partner's branding as an additional item. In this case a brand strategy combined with unique product design would be required. Regarding other challenges, Telesto has struggled with the lack of regulations regarding water mist in many industry applications and this is still a limiting factor in the implementation of the water mist solutions more broadly.

2.6.5. Financing and regulatory environment development needs

On current stage of its development Telesto seeks financing to take its products through certification processes for specific products. So far, the funds for that purpose have been either offered by the owners or obtained for partners who co-fund certification processes. In terms of the regulations for use of the water mist in residential and commercial buildings there is still a need to introduce this kind of protection as regular, currently it can be installed only under special conditions.

2.6.6. Competitors, market situation in the sector and the company's competition position on the market

Water mist has been gaining popularity in the market over the past 15 years and its growth is expected to continue. Some experts claim that the water mist market itself would be growing at approx. 25% a year. Seeing this opportunity many companies have emerged in the market to offer water mist solutions, either for a specific need in a particular industry or more generally. There are well-established market players with world-wide presence such as Marioff (UTC Company) or Johnson Fire Controls (former Tyco). Telesto currently can be seen as a niche player in water mist fire protection systems with dominance in some of the niches – e.g. fire extinguishers and engine protection system.

3. CONCLUSIONS AND RECOMMENDATIONS

Hidden Champions is the category of companies, which value high becoming and sustaining the championship position while staying hidden in the broad public perception. They pay a lot of efforts to have close and strong relationships within their business ecosystems (customers, business partners, staff, competitors, regulators, media etc.). External environment, depending on the scale of operations and market reach (home, European, CEE, global), creates various expectations, opportunities and threats, each of them requiring different adjustments. Especially in highly attractive sectors with fast growing competition, the innovation is a key success factor, and it is important permanently being at least one step ahead of competitors. That is why HCs carefully observe the market changes in terms of growth potential, innovation rate, profitability, market structure with major competitors, M&A moves and their own positioning.

Becoming leaders, they impose the pace and directions of innovations. Thus, they delineate the new competitive landscape and new demand streams. For large global manufacturers, despite of mass scale and value/quality ratio, it is important to perceive the role of customization of their products, services and solutions to the identified needs of major clients. It requires flexible and efficient manufacturing systems. To anticipate the changes, they have to screen the early signals on technology advancements, new materials, machinery, components, distribution channels, promotion means, transaction costs, fashion trends shaping demand and clients' preferences, etc. They might be detected in specific ways: through direct close contacts based on trust with present customers, screening for new clients, meetings at the industry fairs, exhibitions and conferences. It is not popular in this group to order scientific research and analyses. They prefer to be those who initiate research and pave their own way to innovative products. They care about their staff education not only professional but also in the field of foreign languages needed for expansion and communication aimed at close and long-lasting relationships with selected partners.

Polish HCs most often hide in narrow highly specialized market niches and constantly update their offers. Their size depends on the industry or niche specificity. If they work in the mass production of materials destined to the global market usually their employment is much higher than in companies with narrow specialization. They pay attention to keep the costs on the competitive level and to use the most efficient production lines. Design and perfect finishing due to modern technology and skillful staff, still available in many locations in Poland, make it possible to win with the competition and to expand operations.

Quite contrary, new ICT platform companies stay small but are able to operate on the global scale. The major requirement of their growth is the pace of digitalization. They base their intelligence on processing and profiling big data from the global cloud with the use of such technologies as artificial intelligence, augmented and virtual reality, Internet of Things and Services. Hidden Champions, staying small, develop and rely on their creative skills and potential to deliver added value to the offer of large industry leaders. To become their reliable partners they have to meet high standards, be able to exceed them, and sustain their reputation of the reliable and preferred partner in business.

In view of fast changing global environment in such areas as politics, economy, society, technology and natural environment the HCs expect from their home countries friendly and relatively stable regulations at least in mid-term period to avoid painful adaptation. It refers to tax policy, R&D, economic policy related to intelligent specializations, educational policy corresponding with their needs for highly skilled and specialized staff. Political decisions to elevate the lowest wage level in the economy, broad social programs and their immediate putting into life do not leave to much space for rational adjustments and protection of high-performance level, while the compliance has not been questioned.

Polish HCs participate in diverse educational post diploma programs. They do not suffer from the shortage of unskilled labor but usually create high demand for experts. For them they are attractive employers and offer international career opportunities. The major sources of financing their operations and growth are own profits and low-cost European funds. They do not declare the interest in bank loans or credits. They go beyond existing regulations in the area of environmental protection; thus, meeting demands of their clients and other stakeholders. They also care for local citizenship within their CSR policies and frequently sponsor a lot of sport, culture or charity activities.

There is an inherent logic in the three stages of the development of HCs in Poland. The early HCs functioning within the highly constrained environment aspired to become full champions, but their chances were limited before the access to the EU, and even after the accession the shortage of available resources for investments and innovation weakened the real possibility of such a change. Numerous projects funded by the European Union contributed to better education and growth of the economy. Polish HCs from the 2011 profited from the economy opening what resulted in numerous international M&A transactions, where the Polish companies were attractive targets for the international and global transnational corporations, while from the point of view of acquired companies they gained unprecedented opportunities for further growth within broader structures. Quite frequently, Polish HC had the best product but limited marketing and distribution forces. After joining the global leader their growth was blocked as the acquiring company had a competitive product. Finally, this company decided to buy back its shares and to restart their business once again. The recently identified HCs take the full advantage of the openness of the economy and are active on the international arena with their tangible products or digital solutions. Still there are no global leaders of the GAFA¹⁰ caliber in Poland, but potential of agile adjustment to turbulent environment seems to be high in view of past experiences.

New wave of Hidden Champions may have its source in the very fast-growing start-up community with already outstanding achievements and further prospects for fast growth.¹¹ The country provides

¹⁰ Google, Amazon, Facebook, Apple.

¹¹ About 1000 new companies are established in Poland everyday. See: <https://www.coig.com.pl/nowe-firmy-w-polsce-2016-2015-2014-2013.php> - access 31.10.19.

special financial and institutional schemes for their innovation development and commercialization as well as for international expansion¹². Moreover, new legal form has been introduced: simple joint stock company, specially designed for investments in innovative ventures. Thus, Poland positions itself on the 7th place worldwide in supporting start-ups¹³. Some of them are already advanced and raise interest in their business success.¹⁴

4. REFERENCES

- Baumol, W. J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, 98(5), 893–921.
- ABSL (2018). Business Services Sector in Poland. Association of Business Service Leaders (ABSL).
- Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 187, 26.6.2014, p. 1–78.
- Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326, 26.10.2012, p. 47–390.
- Czapinski, J., Panek, T. (2015). *Diagnoza społeczna 2015. Warunki i jakość życia Polaków*. Warszawa: Rada Monitoringu Społecznego.
- Deloitte (2019). *International Tax Poland Highlights 2019*.
- Demsetz, H. (1967). Toward a Theory of Property Rights, *The American Economic Review*, Vol. 57, (2), 347-359.
- Esposito, G., Lanau, S., Pompe, S. (2014). Judicial System Reform in Italy – A Key to Growth, IMF Working Papers, International Monetary Fund, Retrieved from: <http://dx.doi.org/10.5089/9781475573022.001>
- Estrin, S., Mickiewicz, T. (2010). Entrepreneurship in transition economies: The role of institutions and generational change, Discussion Paper No. 4805, Germany. Bonn: IZA.
- European Commission (2018) State Aid Scoreboard 2018, Poland, Retrieved from: https://ec.europa.eu/competition/state_aid/scoreboard/index_en.html
- European Investment Bank (2018), Investment Report 2018/2019: Retooling Europe's economy., Retrieved from: <https://www.eib.org/en/publications/investment-report-2018.htm>
- Eurostat (2016). Gini coefficient of equivalized disposable income – EU-SILC survey.
- EY (2018). *Worldwide Corporate Tax Guide 2018*.
- Gałagus, M., Kamiński, A., Michalak, A. (2018). Start-up Supporting Systems in Central and Eastern Europe, SGH Report, *Gazeta SGH, Krynica Forum*, 14-15.
- Godlewska, M., Morawska, S. (2019). Development of local and regional entrepreneurship – which institutions matter? Evidence from Poland, *Economic Research Ekonomska Istraživanja*, DOI: 10.1080/1331677X.2018.1553680
- Gwartney J., Lawson R., Block W. (1996). *Economic Freedom of the World 1975-1995*, The Fraser Institute, Retrieved from: <https://www.fraserinstitute.org/sites/default/files/EconomicFreedomoftheWorld1975-1995.pdf>
- Jackson, K.A., De Soto Fellow, H. (2011). *International Property Rights Index, Report 2011*, Property Rights Alliance, Retrieved from: <https://www.internationalpropertyrightsindex.org/previous-reports>
- Krajowa Izba Gospodarcza (2013). *Konkurencyjna Polska. Jak awansować w światowej lidze gospodarczej*,
- Levie, J., Autio, E., Acs, Z. & Hart, M. (2014). Global entrepreneurship and institutions: an introduction. *Small Business Economics*, 42(437).

¹² https://www.coig.com.pl/nowe-firmy-w-polsce_2016_2015_2014_2013.php - access 31.10.19

¹³ <https://ceoworld.biz/2019/01/02/most-startup-friendly-countries-in-the-world-2019/> - access 31.10.19

¹⁴ Eg. Biotts, Quotiss, challengerocket.com See: <https://ceoworld.biz/2019/01/02/most-startup-friendly-countries-in-the-world-2019/> - access 31.10.19.

- Levy-Carciente, S., De Soto Fellow, H. (2018). International Property Rights Index, Report 2018, Property Rights Alliance, Retrieved from: <https://www.internationalpropertyrightsindex.org/countries>
- Markowski, R., Kwiatkowska, A. (2018). The Political Impact of the Global Crisis in Poland: Delayed and Indirect Effects. *Historical Social Research / Historische Sozialforschung*, () Challenged Elites – Elites as Challengers. The Impact of Civil Activism, Populism and the Economic Crisis on Elite Structures, Orientations and Agendas, 43(4), 250-273.
- McKinsey & Company (2015). Poland 2025: Europe's new growth engine.
- Miller, T., Kim, A.B., Roberts, J.M. (2019). 2019 Index of Economic Freedom, The Heritage Foundation, Washington, Retrieved from: https://www.heritage.org/index/pdf/2019/book/index_2019.pdf
- OECD Economic Surveys (2018). Poland. Overview <https://www.oecd.org/eco/surveys/Poland-2018-OECD-economic-survey-overview.pdf>
- Perry, A. (2000). An Ideal Legal System for Attracting Foreign Direct Investment? Some Theory and Reality. *American University International Law Review* 15, (6), 1627-1657.
- Polski Instytut Ekonomiczny (2019). Tygodnik Gospodarczy PIE 14/2019.
- Rapacki, R., Próchniak, M. (2018). Porównawcza ocena tendencji rozwojowych w polskiej gospodarce w latach 2010–2017: Polska na tle UE, w „Polska. Raport o konkurencyjności 2018. Rola miast w kształtowaniu przewag konkurencyjnych Polski”, Instytut Gospodarki Światowej SGH.
- The World Bank (2010) Doing Business 2011, Making a Difference for Entrepreneurs, Retrieved from: <https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB11-FullReport.pdf>
- The World Bank (2019). Doing Business 2019, Training for Reform, Retrieved from: https://www.doingbusiness.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf
- Williams, N., Vorley, T. & Williams C.C. (2017). Entrepreneurship and Institutions. The Causes and Consequences of Institutional Asymmetry. London: Rowman & Littlefield International.
- World Bank (2019). <https://data.worldbank.org/indicator/TX.VAL.TECH.MF.ZS?locations=PL> [accessed September 26, 2019].
- World Happiness Ranking (2013-2018). <https://worldhappiness.report/>.
- World Trade Statistical Review (2017). https://www.wto.org/english/res_e/statis_e/wts2017_e/wts2017_e.pdf