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NEARSHORING TO EMERGING EUROPEAN MARKETS

AN ANALYSIS OF THE AUTOMOTIVE INDUSTRY

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Dissertation written under the supervision of André Pinho

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ABSTRACT

Title: Nearshoring to the Emerging European Markets – An analysis of the automotive industry.

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Keywords: Automotive Industry; Emerging Markets; Europe; Nearshoring; Market Entry; Strategy

The European Emerging Markets are in the process of consolidation of their economies since the liberation from the Soviet Bloc. The EU accession and a combination of low wages and skilled labor facilitated the inclusion of these countries in global value chains. This study focuses on the automotive industry and examines the solution of nearshoring production to the European Emerging economies. Supported by quantitative and qualitative data, this study expects to formulate valuable strategic recommendations for European-based companies, by identifying the optimal market to nearshore, as well as the appropriate market entry strategy. An empirical tool was developed to aggregate and ease the interpretation of the data gathered, exhibiting its results thru the interception of two dimensions: the accessibility to enter a market; and the conditions to prosperity provided by it.
The results generated by the matrix point to Czech Republic as the most attractive markets to nearshore, and companies should employ a wholly-owned entry strategy.

SUMÁRIO

Título: *Nearshoring* para os mercados emergentes europeus – Uma análise da indústria automóvel.

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Keywords: Indústria Automóvel; Mercados Emergentes; Europa; Nearshoring; Entrada no Mercado; Estratégia

Os mercados europeus emergentes encontram-se num processo de consolidação das suas economias desde a queda do bloco Soviético. A entrada na EU, juntamente com uma combinação de salários baixos e mão-de-obra qualificada, facilitou a inclusão destes países em diversas *global value chains.* Este estudo, foca-se na indústria automóvel e na realocação da produção para os mercados os mercados emergentes europeus. Sustentado por dados quantitativos e qualitativos, este estudo pretende formular recomendações estratégicas para empresas baseadas na Europa, identificando qual o mercado mais atrativo assim como a estratégia de entrada no mercado mais adequada. Um modelo empírico foi desenvolvido no âmbito de agregar e facilitar a interpretação dos dados recolhidos, exibindo os resultados alcançados através da interceção de dois eixos: a acessibilidade de entrar num mercado; e as condições para sucesso conferidas por tal.
Os resultados gerados por esta matriz apontam para a República Checa como sendo o mercado mais atrativo para realocar produção, sendo que as empresas devem adotar uma estratégia de *wholly-owned subsidiary* neste caso.

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1. Introduction

Since the 1990s, the liberalized economies in central and east of Europe have been growing (Meyer & Peng, 2005), much of which due to Foreign Direct Investment (FDI), bringing capital, skills and high-end technology (Popescu, 2014). FDI has played a significant role in the restructuring of CEE economies, especially on EU accession countries, where growth as been higher than in non-EU members (Kherfi & Soliman, 2005). Indeed, the EU is a commercial opportunity for European and non-European companies to trade at low tariffs in a market of plus 500 million customers (Europa, n.d.). Furthermore, the EU also deals Free Trade Agreements (FTA) directly with key foreign economies, leveraging on the European bloc as a single trading partner. Thus, benefiting all its members and their companies, as 90 % of global demand is set to come from outside Europe in the coming years (KPMG, 2018). The EU accession combined with low cost labor and skilled workers have made these countries highly attractive for FDI in manufacturing industries (World Bank, 2008). The foreign footprint is especially evident in the automotive sector, where foreign Original Equipment Manufacturers (OEMs) own the vast majority of the industry. The arrival of Asian OEMs and a wave of mergers and acquisitions in the sector have rearranged the supply chain in the region (Schmitt & Biesebroeck, 2013). As value chains are becoming more globalized, there is an urge to adapt. For the automobile sector, it means that geographical proximity is ever more important, since logistic and transportation cost are growing due to the complexity of these global supply chains (Schmitt & Biesebroeck, 2013).

The presence of these OEMs has a significant impact at national but also at provincial level. Indeed, an assembly plant is a boost for local economies, bringing wealth, thru the creation of more jobs and restructuring of infrastructures. This positive impact is a step-forward in the development of these countries, and governments are pushing to attract more investment by trying to outbid one-another (Egresi, 2007). As demand is intensifying, it is crucial for companies to be aware of the potential and the risks of investing in these markets.

1.1. Problem Statement and Research Questions

This thesis will explore the solution of nearshoring automotive production to the European emerging economies, as they are becoming more attractive to western partners. The CEE region has been booming, integrating today several global supply chains. Furthermore, the

industry is an important source of wealth for these countries as FDI inflows are increasing (Coface, 2015). Nonetheless, not all of these markets offer the same conditions to nearshore, as economic and institutional development in the region is not homogeneous. Furthermore, these countries are still considered emerging markets, bringing some nuances to the accessibility to enter these markets.

The main problem statement of this thesis is to analyze how automotive companies can leverage on the European emerging economies.

In order to carefully address the problem statement, two research questions need to be answered:

1) What is the most attractive market for automotive companies to build manufacturing into?

2) Which strategies are the most effective to establish a factory in the European Emerging economies?

1.2. Scope of Analysis

This dissertation will focus on the automotive industry of the European Emerging countries that fulfill these requirements:

- Member of the EU
- Democratic regime
- No active wars

These preconditions allow to narrow the scope of analysis to countries that guarantee minimal standards of institutional and economic stability. There were three countries that didn't check for at least one of the requirements: Russia, Turkey and Ukraine.

The final list of countries includes: Bulgaria; Czech Republic; Greece; Hungary; Poland; Romania; Slovakia.

2. Literature Review

This next chapter analyzes the literature related to the research questions and, consequently, to the problem statement. First, the automotive industry and its situation in the markets relevant to the study will be scrutinized. Second, the options of offshoring and nearshoring will be analyzed. And finally, market entry strategies are outlined.

2.1. Automotive Industry

The automotive industry is one that agglomerates all firms that are involved in the manufacturing process of motor vehicles, including the engine and the body. In the last century, the industry has already faced many transformations, beginning with the disruption of the manufacturing process led by Ford when he introduced the assembly line in the first half of the 20th century (Britannica, 2018). The manufacturing techniques evolved during the following decades, reaching another turning point in the 1980s, as the Japanese manufacturer's lean and modular processes spread across the industry. These practices encouraged the division of the assembly process into smaller sub-assembly tasks, thus leading European and North American producers to work with outsource suppliers, an important step to a globalized supply chain (Schmitt & Biesebroeck, 2013).

The car industry has reached all corners of the world and has cemented itself as one of the major industries. As of 2013, 12 million jobs were spread across the supply chain in Europe, 8 million in the US, and 5 million in Japan (Mckinsey, 2013). However, and despite reaching an 88 million vehicles record breaking sales in 2016, the industry is facing major challenges with small shareholder return from the OEMs and major suppliers barely surpassing their costs to present small profits (Parkin et al, 2017). Increasing competition and high cost structures have pushed automotive companies to look for outsourcing opportunities in order to stay competitive, as there is a tendency for manufactures to produce where they sell (Sturgeon et al., 2009). Indeed, sales continue to shift to emerging markets, with China becoming a crucial player (Mckinsey, 2013).

The global industry is also undergoing a period of transformation in terms of its environmental impact (Mckinsey, 2013). In this sense, the auto-players were pushed to follow a more serious approach towards a cleaner environment, with a big emphasis on reducing the carbon emission. As a result, manufacturers have been trying to develop more efficient

engines and have looked for alternatives to fuel in hybrid and electric technology (OICA, 2006).

2.2. Automotive Industry in the emerging markets of the CEE region.

This part briefly analyzes the literature regarding the automotive industry in each country, providing key indicator on the major players and production of passenger cars:

2.2.1 Bulgaria

Currently there's no assembly plant operating in the country, consequently the production of vehicles is 0 (ACEA, 2017). Nonetheless, Bulgaria has 130 components companies, with a major focus on the production of airbag sensors, as they are responsible for 90% of the sensors used in European cars (Colliers, 2017). Employing more than 37000 persons, the sector components is set to grow in the future, with more investment being injected in R&D and infrastructure (Colliers, 2017).

2.2.2 Czech Republic

Being one of the countries with higher concentration of automotive-related businesses in the world, had by 2017, Czech Republic has more than 118 000 people working directly in the industry (Czech Invest, 2017). The automobile sector represents around 9% of the Czech GDP and 25% of the country's exports (Czech Invest, 2017). Such high numbers are a testament to the legacy of the Czechs in the industry. There are two Czech auto brands with more than 100 years old. The first is Tatra, one of the oldest carmakers in the world, with uninterrupted production since 1897. The second is the globally known Skoda, which started production in 1905, and later in the XXth century was acquired by Volkswagen. Skoda Auto has currently two well-known models: Fabia; and Octavia (Czech Invest, 2009). Today, Czech-Republic is also home to the Hyunday Modern Manufacturing Czceh (HMMC) and the Toyota Peugeot Citroën Automobile (TPCA), two of the most modern plants in the world. Finally, Czech Republic is one of the biggest producers in the region, with 1.41 million passenger cars produced in 2017 (ACEA, 2017)

2.2.3. Greece

Despite some niche brands like Namco, current production of passenger cars is close to 0 (ACEA, 2017). With no real production in the country, the exclusive importers are shifting to develop their spare parts businesses since it offers higher rentability compared to auto import (Deloitte 2017). Like the majority of industries, the automobile one is still under consolidation after the 2008 crisis. The number of passenger cars registrations has decreased nearly 73% from 2004 to 2006 (Deloitte, 2017).

2.2.4 Hungary

Hungary has a long history in the automotive sector and is one of the major players in the region. The first automobile manufacturing dates from 1905, when János Csonka produced a mail transport car (HITA, 2012). The industry has since then been growing, although not consistently due to the wars and communist presence throughout the century. Nonetheless, during that time, Hungarians got a name for the production on transport and military vehicles, with brands like Ikarus, once the larget bus manufacturer in Europe, Raba and Csepel (HITA, 2012). After the fall of the Communist Bloc, several foreign OEMs decided to invest in the country moving part of their manufacturing production to Hungarian soil, as the likes of GM, Audi and Suzuki. In 2018, the Hungarian automotive industry produced more than 479 000 passenger cars, while employing more than 170 000 workers (ACEA, 2017).

2.2.5 Poland

Although Poland is known for being one of the biggest car parts manufacturers in the region, the country's passenger car division is still significant (PIFIA, 2013). In 2016, the automobile industry represented, as a whole, 10.1% of the total industrial output of the country. Part of these results are due to foreign companies operating in Polish territory. The major passenger car producers are Fiat, General Motors, and Volkswagen, while Daimler and Toyota have plans to develop a plant in the country as well (Switzerland Global Entreprise, 2016). Nonetheless, the number of passenger cars produced have been slowly declining. In 2017, there were 514 000 cars produced, almost 50 000 less than in the previous year (ACEA, 2017).

2.2.6. Romania

Large-scale automobile manufacturing only started in the 1950s and intensified itself after the appearance of Dacia in the 1960s. Like other market in the region, the automotive sector is a major source of FDI for the country (Egresi, 2007). Currently, both Dacia and Automobile Craiova, originally Romanian companies, are owned by Renault and Ford. The two foreign OEMs are responsible for the almost all the production of passenger cars in the country. In 2018, Romania's passenger car output was around 363 000 (ACEA, 2017).

2.2.7. Slovakia

The automobile industry is the most important sector of the Slovak Economy, representing 43% of the country's total industrial production, and employing, directly and indirectly, more than 200 000 persons (SARIO, 2016). With a favorable business-environment, provided by an attractive fiscal structure and skilled labor, the Slovaks were able to lure significant FDI (World Bank, 2008). Since the acquisition of the BAZ factory in 1991 by the Germans of Volkswagen, the country has drawn three more foreign OEMs to set-up manufacturing plants. Kia and Citroën in the beginning of the 00s and more recently Jaguar Land-Rover with a state-of-the-art assembly plant (SARIO, 2016). Production of passenger cars has been growing since the stock-market crisis, reaching more than 938 000 vehicles produced in 2017 (ACEA, 2017).

2.3. Offshore Outsourcing

A viable solution to face the problems of high cost labor and low productivity could be offshore outsourcing, which is the decision to outsource a business process to a foreign firm (Di Gregorio et al., 2009). The benefits of offshore outsourcing are considered to be of great value for firms and for the global economy, as lower cost-structures allow firms to have more financial freedom and to explore new business opportunities, thus creating more wealth (Farrell, 2005). These lower cost-structures are the result of firms being able to relocate their operations to a market that offers high-skilled and cheap labor (Mudambi &Venzin, 2010). Additionally, offshore outsourcing is also beneficial for company's exports. The fact there is a business unit in an export market can give firms knowledge about that specific market, which can decrease previously existent the information-gap. Ultimately, this translates into an increase of the international competitiveness of firms, specifically MNEs (Bertrand, 2011).

2.4. Nearshore Outsourcing

Nearshore outsourcing is another cost-reduction alternative. The idea is to outsource a business operation to a geographical closer market (Meyer, 2006). This proximity is oftenassociated with a smaller cultural gap and fewer language barriers (Meyer, 2006). In fact, being geographical closer allows firms to avoid transaction costs that arise from physical distance, like transportation or logistics (Schmitt & Biesebroeck, 2013). Additionally, it allows companies to have greater control on the outsource business processes, more knowledge about the consumers, and more flexibility in case of a crisis, therefore reducing the risk of the entire operation (Eastwood, 2005).

2.4.1 Nearshoring to the emerging markets in the CEE region.

Cultural differences have been fading away between Western Europe and Central Eastern Europe (CEE), as a post-socialist era is establishing itself within the region (Meyer & Peng, 2005). This institutional shift, along with a stabilized macroeconomic environment, allowed the markets in the CEE region to promote themselves as reliable nearshoring partners to the key European markets (Meyer, 2005). Nonetheless, their competitive advantage relies substantially on the balance of high skills and low wages (Skanska, 2018).
When compared to their offshore counterparts, wages and infrastructures tend to be higher, even if this cost disadvantage is offset by lower margins and lower tax rates (Farrell, 2005). Indeed, several countries in the region have implemented tax laws and have created transaction structures that are favorable to foreign investment. The CEE region is also undergoing a business transition, with knowledge overtaking wages as the source of economic growth. This allows foreign companies to not only leverage on wages, but also on talent, in order to face a possible cost disadvantage, when compared to other offshore partners (Skanska, 2018).

2.5. Market Entry Strategies in Emerging Economies

Aside from choosing between nearshoring or offshoring, a firm needs to decide on a business strategy when entering a new market – entry mode. There are three commonly known entry

modes mentioned in the literature. Firms can establish themselves in new markets through a Joint-Venture (JV), an Acquisition, or Greenfield (Meyer et al., 2009).

The study of this particular subject has raised some discussion among researchers on what line of thought should firms follow when deciding their entry mode. On one hand, Tan (2009) highlights the importance of managerial resources and capabilities, especially the structure of a multinational enterprise's network, when choosing the most adequate entry mode. Indeed, a resource-based perspective could be the source of a competitive advantage for firms, especially MNEs that usually have more resources at their disposal. Nonetheless, this is more applicable to mature markets (Hoskinsson et al., 2000).

On the other hand, some researchers highlight the importance of a transaction cost theory – the costs of finding, analyzing and dealing with local partners (Meyer et al,. 2009). Firms that use the extended transaction cost model to choose their entry mode will perform better than those who don't. This extended model includes variables that account for cultural context and institutional context (Brouthers, 2013). In fact, institutions have the responsibility to promote a market with minimal transaction and information costs (Hoskinsson et al., 2000). The existence of these costs more present in emerging economies, where institutions tend to be weaker (Meyer et al,. 2009).

Despite being presented separately, these two dimensions can interact. Foreign entrants in need of local resources also need to be aware of the institutional context when making a decision on their mode of entry (Meyer et al,. 2009).

3. Methodology

This chapter will address the methodology used to answer the research questions and subsequently the problem statement. It firstly focuses on the use of quantitative and qualitative secondary data to answer research question 1. This will be followed by the analysis of the methodology used to answer research question 2.

3.1. Market Choice Matrix (MCM)

In order to answer the first research question, a matrix was developed to assess the nearshoring opportunities in the CEE region. This empirical tool merges two dimensions: accessibility to enter, which mainly explores the institutional framework and the foreign policies, and market attractiveness, that offers an overview of the general economics and the automotive industry situation.
The two-by-two matrix is composed of four analysis units (Table 1) that provide a clear strategic path to those using it.

3.2 Secondary Data

To properly assess the two dimensions, secondary data was collected on a broad number of proxy variables. In this case, and in order to compare each country, information was gathered from previous studies about the economic, institutional, and industrial situation of each market. It is important to be aware of the risks of using secondary data, mainly the quality of the data. Therefore, the input collected was retrieved from reliable and praised sources such as the Organization for Economic Co-operation and Development (OECD), International Monetary Fund (IMF), among others.

3.2.1. Conditions to Prosperity

When inquiring about the potential of certain locations for investment, it is important to have a sense of the market size. The measure used is the GDP per capita (GDP/P). As seen previously in the Literature Review, the CEE emerging economies offers a balance of skill and labor, as opposed to other emerging markets that mainly rely on low cost structures. So, instead of only including a variable for Labor Cost, a Labor Productivity variable was also taken into account – this measure is the division of the GDP by the number of hours worked.

Using a top-down approach, variables specific to the industry size were added to this dimension. It was of interest to first explore the manufacturing output of each market, so data was collected on the Production of Passenger Cars, and on the number of foreign assembly plants in each market. The premise of these proxy variables is that if a country produces a great number of vehicles while being a production destination to OEM's then the country has the ability to produce quality output.

A shift within the automotive industry landscape is undergoing, with important technological and digital breakthroughs (Mckinsey, 2013). These are areas of expertise that often require higher education in computer science or engineering. To account for this shift, data was gathered on the Number of Students Enrolled in Tertiary Education, as well as those following a tertiary education specialized in Engineering, Manufacturing or Construction. Furthermore, in order to compare the countries in terms of their technological development, a R&D Index was added to the model. This index is based on the R&D expenditure as a proportion of the GDP. Finally, data regarding the Electricity Costs in each country was gathered from Eurostat.

3.2.2. Accessibility to Enter

Despite the market attractiveness and a hypothetical positive economic environment, companies interested in these emerging markets are still facing some challenges when seeking to enter the market; problems like information asymmetry, cultural differences, corruption, or even trade policies, should be taken into account.

Furthermore, companies might incur unexpected transaction costs when dealing or searching for opportunities in emerging markets - these costs often are the result of a weak institutional framework. Therefore, a variable to assess the quality of the institutions was added to the model. The data was collected from the 2018 Global Competitiveness Report, a study from the World Economic Forum. The INST index agglomerates several variables, with corruption having a small weight in the final score. Corruption is a variable that is mentioned in the literature as being a common source of transaction costs. Consequently, in order to truly account for that risk, a corruption variable was also added to the model. The data was collected from Corruption Perspective Index, a study solemnly focused on the levels of corruption of each country.

Literature states that manufacturing performance benefits from an organizational culture that promotes low individualism, low power distance, high long-term orientation, and high

uncertainty avoidance. Based on these four dimensions of the Hofstede 6D model, a Culture Index was developed by comparing each country in terms of their scores in the mentioned dimensions.
In order to account for cultural and language integration, an English Proficiency Index that calculates the level of English of the local population was also added to the model.
Finally, this dimension of the matrix includes proxy variables that quantify the ease of trading with the European emerging countries. The division of the sum of exports and imports by the GDP translates itself as a Trade Openness variable. Moreover, to assess the easiness of starting a firm and to operate it, an Ease of Doing Business Index was included in the model.

3.2.3. Secondary Data Scoring

Each variable has a different scoring system, creating challenges in the comparability. Therefore, a homogeneous scoring system was created based on the ranking of each country per variable. A specific score of (0-10) is attributed according to the position in the rank order. This method follows a comparative scoring approach instead of an absolute scoring, since as mentioned previously, all the countries in this study are legitimate markets to explore – they all checked for the minimum criterias established.

3.3. SMART

To form both dimensions, this study used a linear additive model, more specifically a multi-criteria additive model, in order to bundle the two sets of variables. This SMART rating technique is useful as it is believed that some variables have a bigger impact on the model than others. Therefore, through the assignment of relative weights to each criterion, the model can account for those differences.

3.4. Qualitative Data

The choice matrix design was based on this topic's main literature. However, some assumptions were taken concerning the choice of the proxy variables. As some were not theoretically sustained, a series of interviews with experts were conducted in order to validate the variables and the findings of the matrix.
It's important to state that both dimensions require a different professional background, as market attractiveness is industry-oriented, while accessibility to enter is more focused on the

political and social situation of each market. So, two sets of interview questions were drafted, as one was directed to the automotive experts and, while the other seeks the opinion of foreign markets specialists.

Through these interviews, information was also collected in order to answer the second research question.

4. Findings

4.1. Secondary Data Findings

4.1.1. Bulgaria

Bulgaria was under Soviet rule, leaving marks in the economy and the institutional set-up of the country. Bulgaria has the lowest GDP of the analyzed countries, with roughly $64,96 billions (IMF, 2018). It also presents one of the lowest GDP/capita of the entire European Union, as in average, each citizen accounts for $9270/year (IMF, 2018). Such a low number translates into a lack of purchasing power that arises form very low wages. Indeed, Bulgaria has the lowest labor costs in the model, paying in average $6,10/hour.

Currently, the country is undergoing a series of substantial reforms - productivity being one of the main ones (World Bank, 2019). In fact, the numbers for Labor Productivity are the lowest in the model, as the GDP/hour worked is $22,90 (OECD, 2018).

Bulgaria is not currently producing passenger cars despite the fact that manufacturing accounts for 14,3% of the GDP (World Bank, 2019).

There are 266 700 students enrolled in tertiary education, and 3,04% of those are pursuing an engineering, manufacturing or construction degree – the second lowest rate in the model (Eurostat, 2018).

Despite a significant increase in the last decade, Bulgaria's R&D expenditure is still ranked among the worst in the model. The country investment represented only 0,78% of the GDP (UNESCO, 2016).

Bulgaria's openness to trade has been successively increasing throughout the last few decades, especially after the integration in the EU. Being part of the biggest economic bloc in the planet is shaping Bulgaria's economy, as roughly 70% of trade (imports and exports) comes from Intra-EU deals. This European presence has contributed to a Trade Openness Index of 131% (World Bank, 2017). However, the country was ranked 59th in the Ease of Doing Business ranking and it's among the worse in the model.

According to the World Economic Forum (2018), Bulgaria has the least efficient institutions in the model alongside Hungary, scoring 54/100. This situation is in part due to extremely high levels of corruption. In fact, Bulgaria scored 42/100 in the CPI and is the worst performing country in this metric (Transparency International, 2018).

In the Culture Index, Bulgaria was, overall, the country that appeared to have the most suited culture for manufacturing (Appendix 1). As for their English Proficiency, and despite being

ranked in the 25th position of the EFI, the Bulgarian population still has the lowest level of English in the model (EF, 2018).

4.1.2. Czech Republic

In 1989, after the "Velvet Revolution", Czech Republic separated itself from what was known as Czechoslovakia. The Czechs left communism behind and reformed their economy leveraging on the free market (Britannica, 2019).

Placed in the heart of Europe, Czech Republic is one of the wealthiest countries in the CEE region with a GDP of $245.05 billions, the second largest in the model (IMF, 2018). Their GDP/capita of $22 850 is also one of the highest in the region, contributing to a steady growth of the population's living standards (OECD, 2018).

Czech Republic is heavily dependent on its industries, mainly on the automotive sector, which accounted for nearly 7.5% of the country's GDP in 2015 (EU Office, 2015). Indeed, the country has been involved in this industry for decades with well-known Czech brands such as Skoda or Tatra. According to ACEA (2017) numbers, the production of PCs reached more than 1.4 million, making Czech Republic the biggest producer in the region - the bulk of the production coming from the 4 foreign assembly plants. Czech Republic is also home to the TPCA (Toyota Peugeot Citroen Automobile Czech) joint-venture that produces the likes of Citroen C1, Toyota Aygo and Peugeot 108.

In terms of talent, Czech Republic has 371 900 students enrolled in tertiary education, and 3,63% of them are enrolled in an engineering, manufacturing or construction degree (Eurostat, 2016).

Czech Republic has the highest score in the R&D Index, as the country's spending in R&D amounted to 1,68% of the GDP (Appendix 2). The country current investment surpasses the EU average and is the highest in the CEE region (UNESCO, 2016).

Since joining the EU in 2004, the country has benefited from a close integration with local partners which boosted their foreign trade. Indeed, Czech Republic's Trade Openness Index is 152%, one of the highest in the region (World Bank, 2017).

Czech Republic's institutional framework is the most efficient in the model, scoring 60/100 in the Institution Index of the Global Competitiveness Report (World Economic Forum, 2018). Moreover, the country is successfully tackling corruption, scoring 59/100 in the CPI, only surpassed by Poland (Transparency International, 2018).

Czech Republic is ranked 3rd in the Culture Index, which can be explained by the long history of the country in the Industry Sector. Furthermore, their level of English is considered high by the EF English Proficiency Index, however, they are not among the best in the region (EF, 2018).

4.1.3. Greece

Greece is recovering from a serious financial crisis, since the 2008 stock exchange crash hit the country. Currently undergoing some structural reforms imposed by the fiscal authorities, the country has seen their GDP plunge in the last decade (OECD, 2018). Despite some marginal growth in the last couple of years, Greece's $219.1 billions GDP is still low compared to the pre-crisis situation (IMF, 2018). Relatively to the GDP/capita, the country has one of the highest in the model with $20410 (IMF, 2018). However, that number is not representative of the reality of the Greek population, that has seen its poverty and inequality numbers rise significantly since the crisis.

Compared to the other countries in the model, Greek labor is the most expensive, reaching $18,19 per hour worked (Eurostat, 2018). Nonetheless, the labor productivity of $32,05 is lower from those at the top of the model (OECD, 2018). Greece also has the highest electricity prices in the region, as industrial prices reach 0,1157€ per kWh (Eurostat, 2018).

As for talent, Greece had 709 500 students enrolled in tertiary education in 2016. From those 1,63% are enrolled in Engineering, Manufacturing and Construction related degrees. Percentage wise, this number is the smallest in the model (Eurostat, 2016). Those numbers might be explained by the lack history in the industry sector. This is especially striking in the automotive industry, where the production of passenger cars is null (ACEA, 2017).

According to the R&D Index, Greece has one of the highest in the model, with R&D expenditure equivalent to 1,01% of the GDP (UNESCO, 2016). However, and despite growing investment in R&D, this number also results from a drop in the GDP.

In terms of setting up a foreign operation, Greece is the least accessible market in the model. According to a World Bank study, Greece is ranked 72th worldwide in an Ease of Doing Business Index. Furthermore, the country has the lowest Trade Openness of the model (Appendix 3), with trade representing 67% of the GDP (World Bank, 2017), hence revealing a lack of FDI that might be due to its financial situation.

Being a closed economy has contributed for a weak institutional framework, alongside poor regulation and an inefficient judiciary system (Hatzis, 2018). Indeed, according to the Global

Competitiveness Report, Greek Institutions got a score of 50/100, the lowest value among the countries in the model (World Economic Forum, 2018). Additionally, the country scored 42/100 in the 2018 CPI, which ranks them at the bottom of the model for this variable (Transparency International, 2018).
Greece has a culture suited for manufacturing, as they are ranked 2nd in the Culture Index. Finally, the English proficiency of the population is ranked as 23th in the world, which is considered a high level, despite being ranked averagely among the countries in the model (EF, 2018).

4.1.4. Hungary

According to IMF numbers Hungary's GDP reached $155,7 billions in 2018 (IMF, 2018). Even though it's not one of the highest in the model, the economy has been positively growing in the last few years. Nonetheless, the GDP/capita of $15920 is still low compared to the major economies in the region (IMF, 2018).
Concerning costs that arise with an assembly plant, Hungary finds itself in the middle of the model. Electricity costs are 0,1042€ /kWh, slightly above the average of the analyzed countries. The same situation occurs with labor costs that reached $12,43 in 2018. This increase in costs is mainly due to an economic reform that aimed at fighting inequality and resulted in a wage increase (OECD, 2019). Hungary's labor productivity follows the same trend, constantly growing. It currently sits at $33,38, above the region's average.
According to Eurostat, Hungary had 295 300 students enrolled in tertiary education in 2018. From those, 3,28% were enrolled in Engineering, Manufacturing or Construction, one of the lowest numbers in the model (Appendix 4). Nonetheless, the enrollment in these areas of study is set to increase in the coming years, as the government launches the "Investing in the Future" initiative to promote technological and scientific engagement.
Hungary is second in R&D Index, as R&D expenditure equals to 1,21% of the GDP, despite a decrease in public funding sources (UNESCO, 2016).
Being under soviet domination for several decades led Hungary to follow an industry-based type of economy. The country's manufacturing capabilities have attracted foreign OEMs. In 2017, there were 5 assembly plants in Hungarian soil, producing 472 000 PCs (ACEA, 2017). Hungary's economy has opened its doors to foreign trade at the end of the 20th century. It has, since then, been able to successfully attract foreign investment. Indeed, Hungary is ranked at the top of the model in terms of Trade Openness, as trade is worth 169% of the country's

GDP. However, the Hungarian market still presents some deficiencies that put it in the 52nd position in the Ease of Doing Business ranking.
These deficiencies are majorly related to the Institutional situation. Hungary has scored 54/100 in the Institution Index of the Global Competitiveness Report 2018, making it the country with the second worst institutions in the model alongside Bulgaria (World Economic Forum, 2018). Corruption is also a problem in Hungary, with the CPI scoring it with 49/100 (Transparency International, 2018).
Culture wise, Hungary is at the middle of the table, scoring 21 in the Culture Index. Furthermore, the Hungarian population is considered to have a high English proficiency level, reaching the 21st position in the EF EPI world rankings (EF, 2018).

4.1.5. Poland

Poland's economic situation is on a rise, continuously growing in the last couple of years, and reaching a $586,02 billion's GDP in 2018 – the highest in the entire region. Their GDP/capita has also been following the same path, with continuous growth and reaching $15 300 in 2018 (IMF, 2018).
Concerning the labor market, the labor cost is $11,41, revealing some significant disparities in wages taking into account the country's wealth (Eurostat, 2018). Nevertheless, productivity has also been rising, attaining $35,98, the second highest in the model (OECD, 2018)
Being the country with the largest population in the region, Poland is with no surprises the country with the most enrolled students in tertiary education, with 1 600 200. From those, 4,76% are pursuing engineering, manufacturing or construction degrees. Such high numbers can be explained by the sheer fact that Poland main sectors are industry related.
Indeed, Poland has a long history in the industrial sector, specifically in the automotive field. It is home to 13 foreign assembly plants, and produced 514 000 PCs in 2017, making them the third largest producer in the model (Appendix 5).
Poland's R&D Index score is fourth among the studied countries, with a R&D expenditure proportion of 0,97% of the GDP (UNESCO, 2016).
According to the World Bank, Poland's trade was 105% of the GDP in 2017, as foreign investors are finding the country's current macroeconomic situation attractive. Furthermore, Poland is 32th in World Bank's Ease of Doing Business Index, making them the highest ranked in the model.

In terms of its Institutional Framework, Poland scored 57/100 in the Institution Index of the Global Competitiveness Report 2018 (World Economic Forum, 2018). While this number is average compared to the other nations in the analysis, the CPI attributes 60/100 to the polish. A number significantly higher than the majority of the countries in the region (Transparency International, 2018).
Finally, having such close ties with countries like Germany, while being part of a global supply chain in several industries, has in some ways "westernized" the country. Indeed, the polish population has a very high level of English proficiency and is ranked 13th in the EF scale, the highest ranked population in the model (EF, 2018).
Culturally, the country has one of the lowest pre-dispositions to manufacturing, scoring 18 in the Culture Index.

4.1.6. Romania

Since joining the EU in 2007, Romania has seen its GDP increase, and currently at $239.85 billions, the country has the third largest GDP in the model. However, its GDP/capita sits among the worse in the model at $12 290 (IMF, 2018). A high poverty rate and inequality are still present in the country, as wages tend to be low. Indeed, labor cost is at $7.8, only above Bulgaria. Following the same trend is productivity. At $22,9/hour, labor productivity in Romania is the second lowest in the model (Appendix 6). Electricity costs are also among the lowest in the model at 0,0989€ per kWh.
According to Eurostat, Romania has 535 200 students enrolled in tertiary education, with 4.13% of those pursuing a degree in engineering, manufacturing or construction.
Romania overall technological engagement is very weak, and that translates into a R&D expenditure of 0,48%, the worst in the model (UNESCO, 2016).
Home to two foreign assembly plants (Renault and Ford), the country produced 364 000 PCs in 2017, the lowest of the countries in the model with PC production.
In terms of openness to trade, Romania has one of the most closed economies in the region, with Trade corresponding to 85% of the GDP. As for opening a new business, Romania is among the countries with the lowest rank in the model, placed in the 52th position in the Ease of Doing Business Index.
Romanian Institutions scored 58/100 in the Global Competitiveness Report, only surpassed by Czech Republic's ones (World Economic Forum, 2018). However, corruption is still a problem in the country, as the CPI attributed 47/100 (Transparency International, 2018).

Finally, the Romanians are the most culturally distant population from the British, scoring 243 points in the Hofstede Dimensions Index. However, the country has one of the highest English proficiency levels in the model, as it is ranked 16th (EF, 2018).

4.1.7. Slovakia

In 2018, Slovakia had a GDP of $106,59 billions and despite not being among the top in the model, it certainly is in terms of growth. The country has also seen its GDP/capita grow in the last couple of years to reach $19 580 in 2018 (IMF, 2018).

This increase in living standards is accompanied by growing wages. Indeed, labor costs are in average $13.11/hour (Eurostat, 2018). As for labor productivity, the numbers in Slovakia are the highest in the model, reaching $41.21/hour (OECD, 2018).

Productivity has been growing, as Slovakia is integrating global value chains, mainly in car-assembly plants. The country is home to 4 foreign assembly plants, that together produced 949 000 PCs in 2017, making Slovakia the second largest car manufacturer in the region (ACEA, 2017).

Slovakia has 167 300 students enrolled in tertiary education. From those, 4,18% are taking a degree in engineering, manufacturing or construction. Besides Poland, it's the country that has the highest percentage of students pursuing these areas of study (Eurostat, 2016).

In terms of R&D expenditure, Slovakia is ranked among the worst in the model, as R&D spending equals to 0,79% of the GDP (UNESCO, 2016). Nonetheless, the country has been rising its R&D investment intensity and it's expected to continue on the same path.

According to the World Bank, Slovakia's trade was 191% of the GDP in 2017, making it the country at the top of the model (Appendix 7). Furthermore, Slovakia was ranked 42th in the Ease of Doing Business Index.

The Institutional situation of the country falls short of developed countries standards, as it scored 56/100 in the Institutions Index (World Economic Forum, 2018) and 50/100 in the CPI (Transparency International, 2018). Both scores are average when compared to the countries in the model.

Finally, and despite being one of the largest producers of passenger cars in the region, culture wise, Slovakia is at the bottom of the Culture Index rating (Appendix 7). Relatively to the language, the country was ranked 24th in EF EPI, only in front of Bulgaria (EF, 2018).

4.2 Expert Interviews

To assess the validity of the model created, a series of interviews was conducted, subsequently validating the answer to RQ1. These conversations also provided key insights on how to answer to RQ2.

As explained in methodology, two sets of interviews were drafted according to each dimension of the model. In total, 4 professionals were inquired.

For Conditions to Prosperity, the main points discussed were:

- Validity of the industry specific variables.
- Main operational risks.
- Possible Entry Modes.

While for Accessibility to Enter, the key topics debated were:

- Relevance of Institutional Framework
- Validity of the proposed variables
- Possible Entry Modes

4.2.1 Interview Conditions to Prosperity

The two interviewees inquired had a professional background in the automotive industry, as the majority of the elements in this axis are industry-related. Both validated the legitimacy of the variables, despite believing that some have more importance than others. Indeed, the interviews highlighted the relevance of quality of production - portrayed by the production of PCs variable and the Nº of Foreign Assembly Plants. Additionally, they also mentioned the importance of labor costs, since assembly plants tend to have a significant number of workers. On the other hand, and despite validating the variable, experts found electricity costs the least significant of the model. All this feedback was taken into account when attributing weights to the variables.

In terms of the major operational risks, experts suggested that strikes can have a serious impact in the output of an assembly plant. Asked about possible inventory, logistical or production problems, they affirmed that the majority of OEMs have specific risk insurances for those types of situations.

Finally, the interviewees offered their subjective opinion, based on previous experiences and personal judgement, on what is the optimal entry strategy in a situation of entering a

developing market. They suggest a joint-venture strategy with a local partner, advocating that the automotive industry is highly integrated and leverages on close ties with local suppliers.

4.2.2 Interview Accessibility to Enter

For this dimension, the interviewees were not required to have a strong background in the automotive industry but needed to have experience dealing with emerging economies and nearshoring. Both seasoned multinational executives, they offered extensive knowledge and insights.

Concerning the model, the overall feedback was positive. The experts verified the importance of the dimension as a whole, as they believe it to be a key aspect to analyze before making a decision on where to nearshore. Relative to the variables used in this dimension, all were validated, with the interviewees focusing specially on the relevance of institutional stability and trade openness – companies look for countries with several trade agreements. Contrarily, the interviewees believed that the language variable should have the lowest impact on the model, since manufacturing operations don't require as much communication as implementing a back office. All these insights were taken into account when attributing weights to the variables.

The possible inclusion of a variable that tests for fiscal attractiveness was discussed during the conversations. Furthermore, they revealed some concern relative to labor laws and trade unions.

As for nearshoring strategies, the recommendation was for companies to follow a wholly owned approach. The rationale for this suggestion is that all countries in the study are part of the EU, and consequently are under European regulation and supervision of European institutions - these guarantee minimum levels of institutional and political stability.

4.3. Market Choice Matrix: Strategic Findings

Based on the expert interviews and the overall findings, a strategic recommendation was conceived for each quadrant of the matrix (see table below). The Go-To quadrant will include the countries that have high accessibility to enter and high conditions to prosperity. In these situations, the nearshoring market limits the risk of setting a new operation thru efficient regulatory systems. Allied to minimal risk, conditions to prosper are high. Therefore, there is no need for companies to share risk and to share eventual profits. So, the recommendation is to develop a wholly-owned subsidiary. This is common practice for companies when they

entry in stable markets, with low risk associated (Brouthers, 2013). In the UK, a country perceived as having a stable economy and stable institutions (AA rating from S&P), the majority of the foreign OEMs have entered the market thru a wholly-owned subsidiary. The Japanese car manufacturers Toyota and Nissan, have both adopted a greenfield entry strategy, establishing UK-based subsidiaries to control their manufacturing plants. While Tata, India's biggest automotive company, as acquired the likes of Land-Rover and Jaguar in order to enter the British market. Furthermore, a situation where the institutional framework is strong and there is a need for tangible local resources, a company is advised to follow this strategic approach (Meyer et al, 2009).

Figure 1: Strategic path designations per quadrant of the Market Choice Matrix

The Local quadrant englobes all markets that have low accessibility to enter and high conditions to prosper. These markets are usually difficult to enter as the efficiency of their institutions is deficient. In these situations, companies are not assured fair treatment and fair trade by local institutions, increasing the risks of not succeeding. So, to mitigate risk commitments companies tend to seek for local knowledge (Brouthers, 2013), since these countries conditions to prosper are high enough for companies to explore nearshoring

opportunities. Therefore, the recommendation is to entry through a joint-venture operation with a local partner. However, in some cases this recommendation might be mandatory, as companies are not abide by law to enter the respective market without a local partner. This is the case of China, where in some industries there are still ownership restrictions that prevent companies to follow a wholly-owned strategy, whilst requiring them to engage in a local partnership (Puck et al., 2008).

In the opposite spectrum of the matrix, the Ally quadrant agglomerates the countries that have high accessibility to enter and low average conditions to prosper. In these cases, the market's efficient and institutions are reliable but the it doesn't offer optimal conditions to set-up an operation. Therefore, to the risk of the operation not succeeding comes from lower expected returns. To mitigate that incumbent risk, companies should adopt a joint-venture entry strategy by partnering with another automotive company. The case of Auto-Europa is a precise example of implementing this type of strategy. In 1991, Portugal was still considered as a developing country with no history in the automotive manufacturing industry. Nonetheless, two automotive companies saw the potential of the country and decided to split the risks. The Auto-Europa subsidiary was created from a joint-venture between Volkswagen and Ford.

Finally, countries that find themselves in the No-Go quadrant, with low accessibility to enter and low conditions to prosperity, are not recommended for implementing a manufacturing plant into. Nonetheless, other opportunities might be explored, like developing a sales channel

5. Analysis

A SMART rating method was used in order to clearly identify what are the main nearshoring opportunities in the model. A specific weight was attributed to each parameter, in order to capture the importance of the parameter in its dimension (see table below). The weight distribution (WD) was subjective, mainly based on the output of the interviews and the literature.

As for scoring, the model follows a ranking-based system, where each country is attributed a score from 0-10 in each category (Appendix 3).

Market Attractiveness	
Variable	**WD**
GDP/capita	10%
Labor Productivity	10%
Labor Costs	15%
Tertiary Education	5%
Engineering / Manufacturing / Construction	5%
R&D	10%
Electricity Costs	5%
Production of PCs	20%
Nº of Foreign Assembly Plants	15%

Accessibility to Enter	
Variable	**WD**
Institutions	25%
Corruption	15%
Culture	10%
Language	10%
Trade Openness	25%
Ease of Doing Business	15%

Figure 2: Weight Distribution of the parameters - based on SMART rating method

The scores from each variable were bundled to form a final value for both dimensions. These values were used as coordinates in the final matrix, to easily display the output of the model (see matrix below). All countries are located in a specific quadrant of the matrix and based on the literature and on the expert interviews, a specific market entry strategy is assigned to each quadrant.

As the matrix shows, there are 4 countries in the Go-To quadrant: Czech Republic; Poland; Slovakia; Hungary. From those, Czech Republic clearly distances itself as the most accessible market to enter and slightly edging Poland as the most attractive. Generally speaking, in this side of the matrix, the optimal market entry choice is through a wholly owned strategy. This idea is largely supported by the literature. Furthermore, this entry method is highly supported by the experts as far as Czech Republic, Poland and Slovakia are concerned. As for Hungary,

and since European supervision is enough to guarantee minimal levels of institutional quality, the possibility for a joint-venture with another international manufacturer should be taken into consideration.

In the Go-Partner quadrant there is only one country, Romania. Nearshoring to this country should be carefully studied as the marker and more specifically the industry is not developed enough. Nonetheless, the levels for Accessibility to Enter are sufficiently high to guarantee a stable transition. So, if a nearshoring opportunity surges, the entry strategy to adopt should be similar to the one in Hungary: a joint-venture with an automotive manufacturer partner.

Finally, Bulgaria and Greece are in the No-Go quadrant. Companies are advised not to nearshore manufacturing to these markets. Nonetheless, developing a sales channel into these markets could be an option to further study.

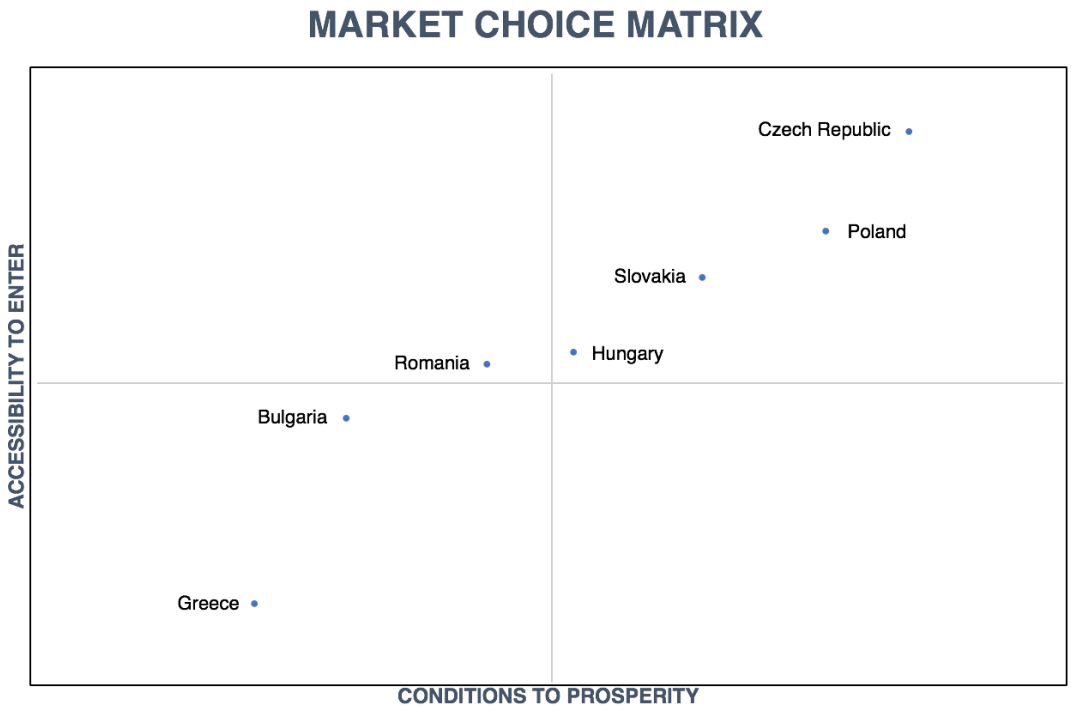

Figure 3: Output from the Market Choice Matrix

6. Conclusion

The main goal of this study was to develop a tool that provided a clear indication for companies on how to leverage on the European emerging economies. The tool was an industry-specific matrix that searched to answer two main problematics: where to go and how to enter.

For the region as a whole, this study showed that the gap with the so-called developed markets is shrinking and that the region is now a solid option for nearshoring – specifically in the automotive industry. Indeed, there are five markets in the region, and that could be considered for nearshore manufacturing into: Czech Republic, Poland, Slovakia, Hungary, and Romania. The study also points to the fact that the region has come a long-way in terms of its institutional and political stability, with the EU playing a vital role in the accessibility to enter these markets. Nevertheless, this is a comparative study and it's important to be cautious when analyzing the output of the matrix and not mistake it as absolute values.

As for entry strategies, the matrix draws four possible scenarios with a strategic action linked to each one. The strategic recommendations were based on the main findings from the literature and the expert interviews. The interviewees were very optimistic about the influence of the EU in the region, believing that European regulation creates an environment that allows for a wholly owned strategies to be adopted in all the countries, while the literature leveraged on the risk commitment and importance of local knowledge to advocate for joint-venture strategies. The final conclusion was that weak accessibility promotes a bigger need for a local partner, so a joint-venture is advised on those cases. And, that weak conditions to prosper can be overcome by partnering with another automotive manufacturer. However, if conditions and accessibility are high, then it is assumed that the countries have a sufficiently efficient market that companies are able to flourish on their own.

Based on the matrix's findings, it is clear that Czech Republic is the optimal market for companies to nearshore their manufacturing activities. The Czechs had consistent results across the model, especially in the more relevant attributes. Indeed, Czech Republic has high living standards, increasing investment in innovation and technology, and high labor productivity. The country also tops the ranking for production of PCs, revealing high quality production. This excellence was also voiced by the Experts who revealed that the Czechs have a solid reputation for precision manufacturing in the business world – mainly due to their legacy in the arms industry. Moreover, the country has the most stable political and institutional situation in the model, along with an extremely open economy. Therefore, based

on the matrix's findings the optimal strategy to enter the Czech market is thru a wholly owned manufacturing plant. The country's values in terms of its market stability offset the need for a local partner. Nonetheless, it is advised to look for national or regional agreements, like Hyundai or TPCA did, as it can facilitate the entering operation.

7. Limitations and Further Research

This study has extensive limitations on its findings. Firstly, some of the secondary data collected can be considered outdated, with some going back as much as three years before the completion of the study. In more developed economies, this might not have been an issue, but emerging markets tend to be more volatile, and some factors can change dramatically.
The model doesn't account for non-numerical variables, such as political orientation of the government, rise of extremist parties or current activism movements.
Additionally, there might exist some correlation between variables. That said, the effect of some variables in the model is artificially increased and that can widen the gap between countries.
Finally, the use of a SMART analysis and the respective weight distribution is highly subjective, and mainly dependent on the expert's interviews. That feedback is personal and individual, and it can change depending on the interviewee. Therefore, the same study performed by another person can offer a different output.
Further research should analyze in more depth the impact of labor law in the process of decision making, as trade unions were highlighted by the experts as major players in the industry.
The study defined the optimal entry mode strategies for car manufactures to set-up an assembly plant in the European emerging economies. Nonetheless, the model has some general features and it can be adapted in order to study different industries. Further research should understand how to adapt the model to successfully analyze other sectors.

REFERENCES:

ACEA. (2017). Passenger Cars EU. Retrieved from https://www.acea.be/statistics/tag/category/passenger-cars-production

Automotive Industry. (n.d.). In *Encyclopædia Britannica online*. Retrieved from https://www.britannica.com/technology/automotive-industry

Bertrand, O. (2011). What goes around, comes around: Effects of offshore outsourcing on the export performance of firms. *Journal of International Business Studies*, *42*(2), 334-344.

Bowsher, Ed. (2017, October 27). Chart that tells a story: UK car production. *Financial Times*. Retrieved from https://www.ft.com/content/388fe992-b7f2-11e7-bff8-f9946607a6ba

Brouthers, K. D. (2013). Institutional, cultural and transaction cost influences on entry mode choice and performance. *Journal of International Business Studies*, *44*(1), 1-13.

Colliers. (2017). Automotive Industry in Bulgaria (Research 2017). Sofia, Bulgaria: Author.

Commission on Growth and Development. (2008). The Automotive Industry in the Slovak Republic: Recent Developments and Impact on Growth. Washington, DC: Author.

Czech Invest. (2009). Automotive Industry in the Czech Republic. Retrieved from https://www.mzv.cz/file/672401/brochure_czech_automotive_industry.pdf

Czech Invest. (2017). Automotive Industry – The Engine of the Czech Economy. Retrieved from http://www.czech-research.com/automotive-industry-engine-czech-economy/

Deloitte. (2017). Passenger Car Market: Greece – Short Presentation. Retrieved from https://www2.deloitte.com/content/dam/Deloitte/gr/Documents/consumer-business/gr_passenger_car_market_2017_noexp.pdf

Di Gregorio, D., Musteen, M., & Thomas, D. E. (2009). Offshore outsourcing as a source of international competitiveness for SMEs. *Journal of International Business Studies*, *40*(6), 969-988.

Eastwood, G. (2005). The offshore and nearshore outsourcing outlook. *Business Insights*.

EF. (2018). English Proficiency Index. Retrieved from https://www.ef.edu.pt/epi/

Egresi, I. (2007). Foreign direct investment in a recent entrant to the EU: the case of the automotive industry in Romania. *Eurasian Geography and Economics*, *48*(6), 748-764.

Europa. (n.d.) Retrieved from https://europa.eu/european-union/about-eu/eu-in-brief_en

Eurostat. (2016). Tertiary Education Statistics. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php/Tertiary_education_statistics

Eurostat. (2018). Electricity price statistics. Retrieved from https://ec.europa.eu/eurostat/statistics-explained/index.php/Electricity_price_statistics

Farrell, D. (2005). Offshoring: Value creation through economic change. *Journal of Management Studies*, *42*(3), 675-683.

Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of management journal*, *43*(3), 249-267.

HITA. (2012). Automotive Industry in Hungary. Retrieved from http://invest-export.brussels/documents/16349/24447/Automotive+industry+in+Hungary.pdf/cc70f051-d2cd-4fdf-a68c-6e5f3117e7fd

IMF (2018). [List of the GDP per capita per country April, 2018]. IMF DataMapper. Retrieved from https://www.imf.org/external/datamapper/NGDPDPC@WEO/CHN/IND/HKG/JPN/KOR

Kherfi, S., & Soliman, M. (2005). FDI and economic growth in CEE and MENA countries: A tale of two regions. *International Business & Economics Research Journal (IBER)*, *4*(12).

KPMG. (2018). The UK Automotive Industry and the EU. Retrieved from https://assets.kpmg/content/dam/kpmg/pdf/2014/04/uk-automotive-industry-and-the-eu.pdf

Mackenzie, M., & Platt, E. (2016, June 24). How global markets are reacting to UK's Brexit Vote. *Financial Times*. Retrieved from https://www.ft.com/content/50436fde-39bb-11e6-9a05-82a9b15a8ee7

Mckinsey. (2013). The road to 2020 and beyond: What's driving the global industry? *Advanced* Industries. Retrieved from https://www.mckinsey.com/~/media/mckinsey/dotcom/client_service/Automotive%20and%20Assembly/PDFs/McK_The_road_to_2020_and_beyond.ashx

Meyer, K. E., Estrin, S., Bhaumik, S. K., & Peng, M. W. (2009). Institutions, resources, and entry strategies in emerging economies. *Strategic management journal*, *30*(1), 61-80.

Meyer, K. E., & Peng, M. W. (2005). Probing theoretically into Central and Eastern Europe: Transactions, resources, and institutions. *Journal of international business studies*, *36*(6), 600-621.

Meyer, T. (2006). Offshoring to new shores: Nearshoring to Central and Eastern Europe.

Mudambi, R., & Venzin, M. (2010). The strategic nexus of offshoring and outsourcing decisions. *Journal of Management Studies*, *47*(8), 1510-1533.

Popescu, G. (2014). FDI and economic growth in Central and Eastern Europe. *Sustainability*, *6*(11), 8149-8163.

OICA. (2006). The Auto Industry – A key player in the world. *World's Auto Industry Key Figures*. Retrieved from http://oica.net/wp-content/uploads/2007/06/oica-depliant-final.pdf

OECD. (2016). The Economic Consequences of Brexit: A Taxing Decision. *OECD Economic Policy Papers, 16*. https://doi.org/10.1787/5jm0lsvdkf6k-en.

OECD (2018). [Graph illustrating the GDP per hour worked per country, 2018]. OECD Data. Retrieved from https://data.oecd.org/lprdty/gdp-per-hour-worked.htm

Ottaviano, G. I., Peri, G., & Wright, G. C. (2013). Immigration, offshoring, and American jobs. *American Economic Review*, *103*(5), 1925-59.

SARIO. (2016). Automotive Sector in Slovakia. Retrieved from http://www.slowakische-kulturtage.de/wirtschaft/Automotive_sector_in_slovakia%20_016_SARIO.pdf

Schmitt, A., & Van Biesebroeck, J. (2013). Proximity strategies in outsourcing relations: The role of geographical, cultural and relational proximity in the European automotive industry. *Journal of International Business Studies*, *44*(5), 475-503.

Skanska (2018). CEE Investment Report. Retrieved from https://www.skanska.pl/4a85d5/contentassets/1f013ae567584ca091591571cd3e9668/cee-investment-report-2018.pdf

SMMT. (2018). SMMT Motor Industry Facts 2018. Retrieved from https://www.smmt.co.uk/wp-content/uploads/sites/2/SMMT-Motor-Industry-Facts-June-2018.pdf

Tan, D. (2009). Foreign market entry strategies and post-entry growth: Acquisitions vs greenfield investments. *Journal of International Business Studies*, *40*(6), 1046-1063.

Transparency International. (2018). Corruption Perception Index. Retrieved from https://www.transparency.org/cpi2018

UNESCO. (2016). Science, Technology, and Innovation. Retrieved from http://data.uis.unesco.org/Index.aspx?DataSetCode=SCN_DS&lang=en

World Bank. (2017). Trade % of GDP. Retrieved from https://data.worldbank.org/indicator/NE.TRD.GNFS.ZS

World Bank. (2019). The World Bank in Bulgaria. Retrieved from https://www.worldbank.org/en/country/bulgaria/overview

World Economic Forum. (2018). Global Competitiveness Report 2018. Retrieved from http://www3.weforum.org/docs/GCR2018/05FullReport/TheGlobalCompetitivenessReport2018.pdf

APPENDIX:

APPENDIX 1: BULGARIA

	Data	Score	Rank/7
Conditions to Prosperity		**2,45**	**6**
Market Sizing			
GDP/capita	$ 9 270	0	7
Labor Productivity	$ 22,90	0	7
Talent			
Tertiary Education (in thousands)	266,7	0	7
Engineering, Manufacturing, Construction (% of Tertiary Students)	3,04%	0,4	6
Innovation			
R&D Index (% of GDP)	0,78%	0,2	6
Costs			
Labor (Cost/h)	$ 6,1	1,5	1
Electricity (per kWh)	$ 0,0972	0,35	3
Quality of Output			
Production of PCs (in millions)	0	0	7
Nº of Foreign Assembly Plants	0	0	7

Bulgaria's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017).

	Data	Score	Rank/7
Accessibility to Enter		**3,85**	**6**
Institutional Framework			
Institutions (Global Comp. Report Index)	54	1	6
Corruption (CPI)	42	0	7
Culture & Language			
Culture Index	29	1	1
English Proficiency (EF EPI Ranking)	25	0	7
Openness to Trade			
Trade Openness (% of Trade/GDP)	131%	1,25	4
Ease of Doing Business (World Bank Ranking)	59	0,6	6

Bulgaria's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 2: CZECH REPUBLIC

	Data	Score	Rank/7
Conditions to Prosperity		**6,8**	**1**
Market Sizing			
GDP/capita	$ 22 850	1	1
Labor Productivity	$ 35,64	0,6	2
Talent			
Tertiary Education (in thousands)	371,9	0,05	4
Engineering, Manufacturing, Construction (% of Tertiary Students)	3,63	0,6	4
Innovation			
R&D Index (% of GDP)	1,68	1	1
Costs			
Labor (Cost/h)	$ 14,24	0	7
Electricity (per kWh)	$ 0,0887	0,5	1
Quality of Output			
Production of PCs (in millions)	1,41	2	1
Nº of Foreign Assembly Plants	4	0,45	4

Czech Republic's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017).

	Data	Score	Rank/7
Accessibility to Enter		**8,05**	**1**
Institutional Framework			
Institutions (Global Comp. Report Index)	60	2,5	1
Corruption (CPI)	59	1,35	2
Culture & Language			
Culture Index	25	0,7	3
English Proficiency (EF EPI Ranking)	20	0,5	3
Openness to Trade			
Trade Openness (% of Trade/GDP)	152%	1,5	3
Ease of Doing Business (World Bank Ranking)	35	2	2

Czech Republic's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 3: GREECE

	Data	Score	Rank/7
Conditions to Prosperity		1,75	7
Market Sizing			
GDP/capita	$ 20 410	0,8	3
Labor Productivity	$ 32,05	0,4	3
Talent			
Tertiary Education (in thousands)	709,5	0,15	2
Engineering, Manufacturing, Construction (% of Tertiary Students)	1,63	0	7
Innovation			
R&D Index (% of GDP)	1,01	0,4	5
Costs			
Labor (Cost/h)	$ 18,19	0	7
Electricity (per kWh)	$ 0,1157	0	7
Quality of Output			
Production of PCs (in millions)	0	0	7
Nº of Foreign Assembly Plants	0	0	7

Greece's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017).

	Data	Score	Rank/7
Accessibility to Enter		1,15	7
Institutional Framework			
Institutions (Global Comp. Report Index)	50	0	7
Corruption (CPI)	45	0,15	6
Culture & Language			
Culture Index	27	0,8	2
English Proficiency (EF EPI Ranking)	23	0,2	5
Openness to Trade			
Trade Openness (% of Trade/GDP)	67%	0	7
Ease of Doing Business (World Bank Ranking)	72	0	7

Greece's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 4: HUNGARY

	Data	Score	Rank/7
Conditions to Prosperity		**4,2**	**4**
Market Sizing			
GDP/capita	$ 15 920	0,4	5
Labor Productivity	$ 33,38	0,5	4
Talent			
Tertiary Education (in thousands)	295,3	0	7
Engineering, Manufacturing, Construction (% of Tertiary Students)	3,28%	0,5	5
Innovation			
R&D Index (% of GDP)	1,21%	0,6	2
Costs			
Labor (Cost/h)	$ 12,43	0,75	5
Electricity (per kWh)	$ 0,1042	0,25	4
Quality of Output			
Production of PCs (in millions)	0,472	0,6	5
Nº of Foreign Assembly Plants	5	0,6	4

Hungary's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017)**.**

	Data	Score	Rank/7
Accessibility to Enter		**4,85**	**4**
Institutional Framework			
Institutions (Global Comp. Report Index)	54	1	6
Corruption (CPI)	46	0,3	5
Culture & Language			
Culture Index	21	0,4	5
English Proficiency (EF EPI Ranking)	21	0,4	4
Openness to Trade			
Trade Openness (% of Trade/GDP)	169%	2	2
Ease of Doing Business (World Bank Ranking)	53	0,75	5

Hungary's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 5: POLAND

	Data	Score	Rank/7
Conditions to Prosperity		**6,15**	**2**
Market Sizing			
GDP/capita	$ 15 300	0,4	5
Labor Productivity	$ 35,98	0,7	2
Talent			
Tertiary Education (in thousands)	1600,2	0,5	1
Engineering, Manufacturing, Construction (% of Tertiary Students)	4,76%	1	1
Innovation			
R&D Index (% of GDP)	0,97%	0,4	5
Costs			
Labor (Cost/h)	$ 11,41	0,9	3
Electricity (per kWh)	$ 0,1078	0,15	5
Quality of Output			
Production of PCs (in millions)	0,514	0,6	5
Nº of Foreign Assembly Plants	13	1,5	1

Poland's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017)**.**

	Data	Score	Rank/7
Accessibility to Enter		**6,6**	**2**
Institutional Framework			
Institutions (Global Comp. Report Index)	57	1,75	3
Corruption (CPI)	60	1,5	1
Culture & Language			
Culture Index	18	0,1	6
English Proficiency (EF EPI Ranking)	13	1	1
Openness to Trade			
Trade Openness (% of Trade/GDP)	105%	0,75	5
Ease of Doing Business (World Bank Ranking)	33	2	2

Poland's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 6: ROMANIA

	Data	Score	Rank/7
Conditions to Prosperity		**3,55**	**5**
Market Sizing			
GDP/capita	$ 12 290	0,2	6
Labor Productivity	$ 29,55	0,3	6
Talent			
Tertiary Education (in thousands)	532,5	0,1	3
Engineering, Manufacturing, Construction (% of Tertiary Students)	4,13%	0,7	3
Innovation			
R&D Index (% of GDP)	0,48%	0	7
Costs			
Labor (Cost/h)	$ 7,8	1,35	2
Electricity (per kWh)	$ 0,099	0,35	3
Quality of Output			
Production of PCs (in millions)	0,364	0,4	6
Nº of Foreign Assembly Plants	2	0,15	6

Romania's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017)**.**

	Data	Score	Rank/7
Accessibility to Enter		**4,65**	**5**
Institutional Framework			
Institutions (Global Comp. Report Index)	58	2	2
Corruption (CPI)	47	0,3	5
Culture & Language			
Culture Index	22	0,4	4
English Proficiency (EF EPI Ranking)	16	0,8	2
Openness to Trade			
Trade Openness (% of Trade/GDP)	85%	0,25	6
Ease of Doing Business (World Bank Ranking)	52	0,9	4

Romania's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 7: SLOVAKIA

	Data	Score	Rank/7
Conditions to Prosperity		5,2	3
Market Sizing			
GDP/capita	$ 19 580	0,7	3
Labor Productivity	$ 41,21	0,9	1
Talent			
Tertiary Education (in thousands)	167,3	0	7
Engineering, Manufacturing, Construction (% of Tertiary Students)	4,18%	0,8	2
Innovation			
R&D Index (% of GDP)	0,79%	0,2	6
Costs			
Labor (Cost/h)	$ 13,11	0,75	5
Electricity (per kWh)	$ 0,105	0,2	5
Quality of Output			
Production of PCs (in millions)	0,949	1,2	2
Nº of Foreign Assembly Plants	4	0,45	4

Slovakia's Conditions to Prosperity Variables presented by absolute value; relative score; and ranking (IMF, 2018; OECD, 2018; Eurostat, 2016; UNESCO, 2016; Eurostat, 2016; ACEA, 2017)**.**

	Data	Score	Rank/7
Accessibility to Enter		5,9	3
Institutional Framework			
Institutions (Global Comp. Report Index)	56	1,5	4
Corruption (CPI)	50	0,6	3
Culture & Language			
Culture Index	16	0	7
English Proficiency (EF EPI Ranking)	24	0,1	6
Openness to Trade			
Trade Openness (% of Trade/GDP)	191%	2,5	1
Ease of Doing Business (World Bank Ranking)	42	1,2	3

Slovakia's Accessibility to Enter Variables presented by absolute value; relative score; and ranking (World Economic Forum, 2018; Transparency International, 2018; EF, 2018; World Bank, 2017).

APPENDIX 8: INTERVIEW GUIDELINES (CONDITIONS TO PROSPERITY)

Validity of the Industry Specific Variables

An analysis model was developed to identify if a country is suited for automotive countries to nearshore production into. To create the model, a number of variables were selected to provide an overview of the conditions each country offers to successfully implement an assembly plant.

1. Are the chosen variables representative of the needs and conditions required to develop and run a manufacturing plant?
2. From the Variables presented, which do you believe are the most important? And the least?

Main Operational Risks

Considering an assembly plant with so many workers, machines, and scale of production, certainly there might exist some major liabilities.

3. What are the main risks of managing such an operation?

Possible Entry Modes:

4. Based on the resources & capabilities needed to operate an assembly plant what is the most effective strategy to implement it?

Now consider that the nearshoring markets that are being addressed are the European Emerging economies.

5. Is the strategy any different?

APPENDIX 9: INTERVIEW GUIDELINES (ACCESSIBILITY TO ENTER)

Validity of the Industry Specific Variables

An analysis model was developed to identify if a country is suited for automotive countries to nearshore production into. To create the model, a number of variables were selected to provide an overview of the accessibility to enter a market.

1. Are the chosen variables representative of the information necessary to properly assess the accessibility to enter a market?
2. From the Variables presented, which do you believe are the most important? And the least?

Relevance of Institutional Framework

3. What is the relevance of the institutional framework when setting an operation abroad?

Possible Entry Modes:

4. Which are the most effective strategies to set-up a factory abroad in Emerging Markets?

Now consider that the nearshoring markets that are being addressed are the European Emerging economies.

5. Are the entry strategies different for this region? Is that influenced by the institutional situation of each country?

APPENDIX 10: VARIABLE DATA SCORES – SMART METHOD

CONDITIONS TO PROSPERITY VARIABLES

GDP/capita		Labor Productivity		Education		Production of PCs		N° of Foreign Assembly Plants	
WD: 10%		WD: 10%		WD: 5%		WD: 20%		WD: 15%	
Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
9720-10627	0	22,90-24,72	0	167,30-310,58	0	0-0,13	0	0	0
10628-11985	1	24,73-26,55	1	310,59-453,87	1	0,14-0,27	1	1	1
11986-13343	2	26,56-28,38	2	453,88-597,16	2	0,28-0,41	2	2	2
13344-14701	3	28,39-30,21	3	597,17-740,45	3	0,42-0,56	3	4	3
14702-16059	4	30,22-32,05	4	740,46-883,74	4	0,57-0,70	4	5	4
16060-17417	5	32,06-33,88	5	883,75-1027,03	5	0,71-0,84	5	7	5
17418-18775	6	33,89-35,71	6	1027,04-1170,32	6	0,85-0,98	6	8	6
18776-20133	7	35,72-37,54	7	1170,33-1313,61	7	0,99-1,12	7	9	7
20134-21491	8	37,55-39,37	8	1313,62-1456,90	8	1,13-1,26	8	10	8
21492-22849	9	39,38-41,20	9	1456,91-1600,19	9	1,27-1,40	9	12	9
>= 28850	10	>=41,21	10	>=1600,20	10	>=1,41	10	13	10

Engineering		R&D		Labor Cost		Electricity	
WD: 5%		WD: 10%		WD: 15%		WD: 5%	
Value	Score	Value	Score	Value	Score	Value	Score
1,63%-1,94%	0	0,48-0,59	0	>=18,19	0	>=0,1157	0
1,95%-2,25%	1	0,60-0,71	1	18,18-16,98	1	0,113-0,1156	1
2,26%-2,56%	2	0,72-0,83	2	16,97-15,77	2	0,1103-0,1129	2
2,57%-2,88%	3	0,84-0,95	3	15,76-14,57	3	0,1706-0,1102	3
2,89%-3,19%	4	0,95-1,07	4	14,56-13,36	4	0,1049-0,1705	4
3,20%-3,50%	5	1,08-1,19	5	13,35-12,15	5	0,1022-0,1048	5
3,51%-3,81%	6	1,20-1,31	6	12,14-10,94	6	0,0995-0,1021	6
3,82%-4,13%	7	1,32-1,43	7	10,93-9,73	7	0,0968-0,0994	7
4,14%-4,44%	8	1,44-1,55	8	9,72-8,52	8	0,0941-0,0967	8
4,45%-4,75%	9	1,56-1,67	9	8,51-7,31	9	0,0914-0,0940	9
>=4,76%	10	>=1,68	10	7,30-6,10	10	0,0887-0,0913	10

ACCESSIBILITY TO ENTER VARIABLES

Culture		Language		Trade Openness		Ease of Doing Business	
WD: 10%		WD: 10%		WD: 25%		WD: 15%	
Value	Score	Value	Score	Value	Score	Value	Score
< 17	0	>=25	0	67%-78%	0	>=72	0
< 19	1	< 25	1	79%-91%	1	68-71	1
< 20	2	< 24	2	92%-103%	2	64-67	2
< 21	3	< 23	3	104%-116%	3	60-63	3
< 23	4	< 21	4	117%-128%	4	56-59	4
< 24	5	< 20	5	129%-140%	5	53-55	5
< 25	6	< 19	6	141%-153%	6	49-52	6
< 26	7	< 18	7	154%-165%	7	45-48	7
< 28	8	< 17	8	166%-178%	8	41-44	8
< 29	9	< 15	9	179%-190%	9	37-40	9
>=29	10	< 14	10	>=191%	10	33-37	10

Institutions		Corruption	
WD: 25%		WD: 15%	
Value	Score	Value	Score
< 51	0	< 44	0
< 52	1	< 46	1
< 53	2	< 47	2
< 54	3	< 49	3
< 55	4	< 51	4
< 56	5	< 53	5
< 57	6	< 55	6
< 58	7	< 56	7
< 59	8	< 58	8
< 60	9	< 60	9
>=60	10	>=60	10