

INTERNATIONALIZATION ACCELERATORS IN AUTOMOTIVE SECTOR COMPANIES

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Purpose: The main aim of the article is to identify and describe the accelerators of internationalization of automotive companies, i.e. the factors that create the conditions for this process to occur and significantly strengthen it. An additional goal is to group these factors according to specific criteria and try to determine their importance using specific examples.

Design/methodology/approach: The study used mixed research methods. The research began with literature studies. They allowed for determining the current state of knowledge in the studied area and formulating the research problem. The actual research was conducted using the qualitative approach. Case studies supported by data from secondary sources are an important element of the research.

Findings: All factors enabling and accelerating the internationalization process can be classified into one of four groups: politics, market, costs and competition. Each of these groups is characterized by features common within this group and significantly different from those of the other groups. With the passage of time and with evolution of the global economy, the importance of the described factors and the strength of their impact on the overall shape of enterprise internationalization are changing.

Research limitations/implications: The research expands scientific knowledge of factors that determine the background of the internationalization process and strengthen this process. They show the context that makes it easier to understand why car companies undertake expansion to foreign markets and what benefits and threats result from it. The main limitation is the relative scarcity of objective and highly reliable data presented in a way allowing for quantitative comparative research. The acquired data is dispersed and discontinuous. Therefore, it can be assumed with high probability that not all relationships and dependencies have been noted.

Practical/social implications: This article is recommended for researchers dealing with its subject matter and for management practitioners, especially executives responsible for management and development strategy. The characteristics, recommendations and conclusions contained herein enable a better understanding of the complex, complicated and multi-faceted system of conditions for the international expansion of enterprises.

Originality and value: The originality of the research consists in an attempt to comprehensively describe the most important factors setting the background for internationalization of enterprises and strengthening this process. The article's conclusions and recommendations allow for a better understanding of the mechanisms of conducting business and competing in the global environment.

Keywords: internationalization, strategy, management, internationalization accelerators.

Category of the paper: research paper.

1. Introduction

Internationalization of enterprise operations intensified on an unprecedented scale in the 1980s. This process then became the subject of increased interest of both management practitioners and theorists. Attempts were made to learn about motives for internationalization, determinants of this process, its model course, and, above all, benefits of these processes and risks associated with them. The first studies showed that the main motives for adopting an internationalization strategy was the desire to use cheap raw materials and labor, and, first of all, the opportunity of taking over shares in new markets for production carried out in the home country. However, over time, the motives for taking action outside the home country were becoming increasingly complex. The determinants of internationalization, in particular the scope and strength of their impact, are constantly changing.

With the changes taking place in the global economy, the scope of benefits and the scale of risks related to the internationalization process are also changing. An example is the withdrawal from Far Eastern countries by an increasing number of manufacturers. The relative benefits of low labor costs, taking into account high transport costs, are decreasing. Such solutions are becoming less and less profitable. Threats resulting from the learning effect are also increasing. Western European and North American countries that invested in Asia (except Japan) simultaneously transferred technologies, know-how and other strategic resources to the latter. These assets now allow enterprises in this region to obtain competences and skills similar to, and sometimes higher than, those of Western companies.

In addition to these changes, which were definitely evolutionary, there were also changes of a sudden, even revolutionary nature: the outbreak of the Covid-19 pandemic and the Russian aggression against Ukraine. These events brought the economy to a turning point. These examples demonstrate clearly that the topic of internationalization remains relevant. It certainly will, and should, be an area of further research on which recommendations for management practitioners could be based.

The scope of impact of the processes of internationalization and globalization is very wide. They affect people, all types of business, social organizations and legal regulations. This translates into changes in the operation of the economic, social and legal systems of individual countries and, consequently, the entire world economy. Undoubtedly, in each of these areas it would be possible to find critical elements with a very strong impact on the discussed processes. However, there is no doubt that enterprises constitute a group of entities whose activities greatly influence changes in the life of individual local, regional and national economies. These trends are then aggregated and transformed at the highest level, which is the global economy.

2. Research methodology

The approach used in the work was mixed and required the use of two methods. The first part of the work included studies of the literature on the subject in order to determine the current state of knowledge in this area. The second stage included qualitative research. A research approach consisting of a qualitative case assessment was used. The study included the following stages.

- Review of the literature: A thorough review of monographs and scientific articles was conducted. The literature was obtained from renowned databases, including Scopus, Web of Science and ScienceDirect. The literature covered the issues of development of the world economy and international expansion and internationalization of enterprises.
- Formulation of the research problem: The literature analysis enabled the identification of a research gap. It was found that there is a lack of research that addresses the issues of identification and description, as well as changes in the strength, of the impact of factors that create a set of conditions for internationalization of a specific sector throughout its life. This allowed for the formulation of the main goal and a secondary goal. The main aim of the article is to identify and describe the accelerators of internationalization of automotive companies, i.e. the factors that create the conditions for this process to occur and significantly strengthen it. The additional goal is to group these factors according to specific criteria and try to determine their importance based on specific examples.
- Data and information collection: Data was obtained from various sources:
 - international institutions,
 - industry organizations,
 - market reports,
 - enterprise reports,
 - press articles,
 - websites.
- Data analysis: The information and data obtained were subjected to careful selection and rigorous analysis, subordinated to the purpose of the research. Then, the classic assumptions of the qualitative research approach were applied.
- Results and recommendations: The article ends with conclusions and recommendations for the scientific community and for executives in charge of strategic management.
- Limitations: The source data was dispersed and discontinuous. This circumstance significantly complicates any comparative research and makes it impossible to study the development of phenomena over time using quantitative methods. This leads to the obvious conclusion that many cause-and-effect interdependencies have not been noticed or properly assessed.

3. The essence of internationalization of enterprises

Internationalization, in the simplest terms, means that an enterprise expands its activities beyond the borders of its home country in order to find better development opportunities. The essence and causes of internationalization are very complex, as they are shaped by a number of closely interconnected and largely interdependent factors. An important feature of this process is its multidimensionality, which involves an interfusion of several spheres: economy, business and society. The dialectical nature of internationalization should also be emphasized. This process is influenced by interrelated and conditioned sub-processes that seem contradictory, for example homogenization and differentiation or globalization and regionalization.

Johanson and Wiedersheim-Paul (1975) and Johanson and Vahlne (1990) concluded that internationalization is a slow, gradual and evolutionary process. The authors noted that the typical course of an instance of internationalization begins with exports and the next phase is various forms of cooperation, which precede direct investments characterized by the highest degree of control among all forms of foreign involvement. Currently, this method of internationalization is known in the literature on the subject as the “Uppsala model”. This approach was also used. The evolutionary model has many supporters among researchers. Critics, however, argue that this theory was applicable in the 1970s, when the advance of internationalization and globalization was slow, but now the theory has become outdated. Simple evolutionary theories often insufficiently explain strategic behaviors and the choice of forms of enterprise development on foreign markets. At the end of the 1980s, Johanson and Mattson (1988) and Root (1987) promoted the view that the internationalization process is largely dependent on the conditions in which the company operates. However, the company chooses a specific level of internationalization and its forms depending on the potential benefits that can be obtained.

Internationalization of a company's operations is a complex and multidimensional phenomenon, and therefore difficult to describe within a uniform model. Regardless, it is identified with growing involvement in international activities (Welch, Luostarinen, 1988) or even with any type of activity undertaken outside the borders of the home country (Rymarczyk, 2004). The fact of expanding from the domestic market into an increasing number of foreign markets is often emphasized (Misala, 2005). Internationalization is also treated as a synonym for geographical dispersion of a company's economic operations outside its home country (Przybylska, 2010).

Internationalization is pursued through various organizational forms, depending on the level of the company's involvement in foreign operations. Globalization is considered its highest stage (Fischer, 1998; Zorska, 1998; Gwiazda, 2000; Gierszewska, Wawrzyniak, 2001; Flejterski, Wahl, 2003). According to Mittelman (1996), a manifestation of globalization is the

spatial reorganization of production and the penetration of industries across borders, the expansion of financial markets, and the diffusion of similar consumer goods to distant countries. Globalization is also considered as a process (Bairoch, Kozul-Wright, 1996) in which the production and financial structures of countries become interconnected by an increase in the number of cross-border transactions and leads to the emergence of a new international division of labor in which the creation of national wealth depends increasingly on business organizations from other countries. Early theories by Levitt (1991) and Rugman and Hodgetts (1995) viewed corporate globalization as the production and distribution of goods and services on a worldwide scale. According to McGrew (1992), globalization consists in the multiplicity of links and mutual interactions of states and societies that form the current world system. Globalization is characterized by two dimensions: scope and intensity. It is driven by phenomena involving activities on a global scale. Globalization also involves intensification of cooperation between states and societies that make the global community. Various types of relationships and connections are simultaneously expanding and deepening in the global economy. To sum up, globalization of the world economy is often considered as a consequence of the process of internationalization of enterprises.

4. Enterprise internationalization accelerators

The causes of globalization of the world economy, like its essence, are very complex. Although globalization is considered a relatively new phenomenon, in fact its roots lie in the 18th and 19th centuries. The industrial revolution of the late 18th century changed the face of factories and initiated mass production of goods. That laid foundations for the phenomenon of globalization of sectors and concentration of activities in specific areas. The development of markets resulted in lower prices and, thus, an increase in attractiveness of products.

It is important to distinguish globalization of markets from globalization of sectors, as each form of globalization has different implications for different aspects of strategy and operations. It is also important to understand links between global sectors and markets, as the characteristics of the sector and market influence the specificity of the global strategy. The following distinction between “sectors” and “markets” was adopted in the research: sectors generate supply while markets create demand. This distinction was adopted by, among others, Stonehouse et al. (2001).

The course of the internationalization process is shaped by a number of factors that are strongly interconnected and largely interdependent. They are a kind of accelerators, i.e. factors that speed up this process. According to the concept of Yip (1996), they can be divided into external factors related to the international environment and internal factors related to the development of the enterprise and its strategic decisions. The group of external factors includes

political and market-driven factors, while the group of internal factors includes cost- and competition-driven factors. This division was used by Rymarczyk and by the authors from the Strategor Group, among others. Zorska (1998) distinguished three groups of factors while expanding Dicken's approach: scientific and technical progress, changes in international competition and economic policies of the state. The article distinguishes four groups of factors:

- politics-driven,
- market-driven,
- cost-driven,
- competition-driven.

4.1. Politics-driven factors

Politics-driven factors are related to the broadly understood economic policy of the state, as well as economic processes initiated or modified by the policy. The factors that contributed most to internationalization of production sectors, including the automotive sector, which is the subject of research, are characterized below.

The **policy of the host country** is a very important determinant of the process of enterprise internationalization. There may be discrepancies between expectations of potential investors and expectations of host country governments. Terms of trade imposed on foreign companies may be inconsistent with their global strategies and, therefore, cause a conflict between their own needs and political pressures. According to Dunning (1992), economic policies of host countries influence the course of the globalization process by removing obstacles and distortions in the operation of markets and by stimulating their activity.

Removing barriers to the flow of resources is a necessary condition for conducting geographically dispersed and functionally integrated business activities. **Liberalization of trade** occurs as a result of gradual exhaustion of development opportunities based on national resources and markets (Romanowska, 1997; Szymański, 2001; Stonehouse et al., 2001; Cygler, 2002). Benefits of international exchange result from mutual access to sales markets. In this way, agreements liberalizing international exchange were concluded and several organizations were established, the most important of which are:

- International Monetary Fund (IMF),
- World Bank,
- Organization for Economic Cooperation and Development (OECD),
- World Trade Organization (WTO),
- various UN agencies:
 - International Labor Organization (ILO),
 - United Nations Development Program (UNDP),
 - United Nations Industrial Development Organization (UNIDO),
 - Food and Agriculture Organization of the United Nations (FAO),
 - United Nations Conference on Trade and Development (UNCTAD).

The task of the IMF and the World Bank is to maintain financial stability and liquidity in international financial turnover. The OECD is an organization associating 38 of the most developed countries in the world, participation in which offers opportunities to reduce costs of international transactions and bank guarantees and loans. The WTO works for liberalization of international trade, while specialized agencies of the UN facilitate the exchange of experience and information and offer assistance to less developed countries.

Deregulation of domestic financial markets is an important accelerator of internationalization. Moving away from fixed exchange rates contributed to a strong increase in turnover and increased speed and security of financial operations. Capital became more easily available.

Legal regulations regarding stronger intellectual property protection are another important determinant. Better protection of products and brands and unification of similar standards around the world drove the emergence of global products.

Easement of state interventionism is another very important factor in internationalization of enterprises. The lowering of political barriers was possible thanks to the increasing dominance of market forces over government regulations.

Economic integration is also an important factor of globalization. It involves cooperation of the member states of a given group and leads to the establishment of huge markets with unified economic, technical, legal, social and financial background. Economic integration eliminates exchange barriers within a given region, while maintaining common trade restrictions outside the group. The groups with the greatest importance in the world economy are the European Union (EU) and the North American Free Trade Agreement (NAFTA). At the end of the 1990s, they accounted for approximately 50% of the world trade and approximately 70% of foreign investments. Other regional groupings important for the world economy include:

- Asia-Pacific Economic Cooperation (APEC),
- Association of Southeast Asian Nations (ASEAN),
- ASEAN Free Trade Area,
- MERCOSUR (Mercado Común del Sur).

The described factors drive internationalization of manufacturing enterprises, regardless of their sectors. In the case of the automotive sector, the most important politics-driven factors include the following:

- economic and economic integration,
- trade liberalization,
- state interventionism reflected in:
 - tax policy,
 - import policy,
 - policy towards foreign investments.

The processes of **economic integration** of large areas and regional **economic integration** are of great importance for internationalization of the automotive sector. They enable the building of markets free from customs barriers. They thus create greater freedom in the international exchange of goods, services and means of production within a specific group of countries. Integration leads to unification of legal, technical and fiscal terms of conducting business in associated countries, while maintaining common restrictions for outsiders. The most important cooperation agreements are the EU and the NAFTA. They concentrate the vast majority of trade and resources of automotive companies. To this China should be added, which has become a major player in the sector.

The ASEAN countries have set for themselves a goal of promoting economic development, securing political and economic stability and solving problems in the region. Their cooperation was intended to strengthen the economies of the individual members so that they could resist the expansion of companies from the USA, Japan and Europe (Oziewicz, 2001). This unfavorable climate for imports and direct investments resulted in the almost complete absence of European and American manufacturers. They expected trade liberalization in the entire region. Japanese companies, on the other hand, used a multi-local approach, i.e. each country in the group was treated as a separate market. This strategy allowed Japanese manufacturers to gain a 90% share in the ASEAN's market. The use of integrated measures as part of a global strategy is very difficult in the ASEAN due to the group's strongly protectionist policy. In an attempt to protect their own markets, the ASEAN countries forced manufacturers to source from local suppliers. Japanese manufacturers were therefore forced to completely reorganize their supply system for their factories in Thailand, Indonesia, Malaysia and Philippines (The Economist, 2000, p. 82).

The internationalization process is driven by economic policies of individual countries, the essential component of which must be removal of barriers to the flow of resources. **Liberalization of trade** results from gradual exhaustion of opportunities for enterprises to develop based on their national resources and markets. Therefore, enterprises are looking for new markets and strive to reduce production costs. Despite clear global trends to eliminate barriers to the flow of resources, individual countries or entire groups in some regions continue to protect their markets. This strategy was adopted by the EU towards the USA and, above all, towards Japan and South Korea. Korean manufacturers therefore decided that the best way to enter the EU market was to set up their operations in countries aspiring to this group. They located their plants in Slovakia and Czechia. When these countries joined the EU, they became part of this market. The motive for investing in these countries was primarily the desire to bypass tariff barriers. In order to protect their own market, European and North American companies began to press the South Korean government to facilitate their access to this market, threatening to impose economic sanctions in case of refusal. Behaviors aimed at protecting their own market are also typical of Japanese governments.

The internationalization process may be shaped by **state interventionism** including the tax system, among others. The Japanese tax system favored for a long time vehicles with very small engine sizes. This is how they defended access to their market. Only long-term protests by Western manufacturers contributed to liberalization of the state's protectionist policy in the form of high customs barriers. As a result, these barriers were completely abolished in 1978. However, exports to Japan were still effectively limited by very strict environmental pollution standards in force in that country, usually unattainable for Western manufacturers at that time.

An important factor in shaping markets and competition is the **state's import policy**. Strong state interference in market control mechanisms marked the development of the automotive sector in South Korea. A total ban was introduced on the import of cars from Japan. This was an expression of huge concerns about technologically advanced and highly competitive Japanese products. The ban allowed Korea to avoid direct competition on its own market and contributed to the strengthening of the domestic industry. In contrast, Thailand's liberal economic policy meant that the country has never become an independent car producer. It is only a host for activity of Japanese and American companies.

In response to the growing competitive advantage of Japanese manufacturers, the USA also used adequate import policy tools. When imports from Japan increased almost sixfold in just a decade, the US introduced import limits. Almost all EU countries also took steps to protect their markets. An exception was Germany which had an extremely competitive domestic industry.

An important determinant of internationalization is the **host country's investment policy**. There are often discrepancies between expectations of potential investors and interests of host countries. An example is the Japanese government's regulations on car imports from the mid-1950s. Despite huge demand that the domestic production could not meet, the Japanese government decided to maintain high customs duties, effectively defending access to this market. The aim was to establish a foundation for development of the domestic industry. In return, favorable conditions were offered for concluding license agreements. The imports of components were gradually limited and, at the end of the 1950s, the domestic automotive industry was almost entirely supplied from local sources. As a result, high customs duties and legal regulations unfavorable to foreign investors blocked the expansion of American and European companies in Japan for many years.

State interventionism is the most important factor that has structured the current layout of competitive forces in China. The main motive for the initial investments in China in the 1980s was the desire to achieve a high starting competitive position on this market. After a decade, the best position there was won by German Volkswagen whose production in 1994 exceeded 100,000 vehicles, or one third of all vehicles assembled in China at that time. Low labor costs were of secondary importance because low production efficiency and negligible demand on the internal market made operating there unprofitable. Therefore, most manufacturers tried to enter the Chinese market only when the country's economy offered the promise of a rapid and steady growth. However, under influence of a strong lobby of early investors who wanted to negotiate

the most favorable terms of trade, in 1994 the Chinese government introduced a two-year ban on establishing new joint ventures in the automotive sector. This is how the government rewarded the early investors.

The US government's interventionism was of a completely different nature. In order to improve competitiveness of the domestic sector, a unique car development plan was implemented in 1993: the Partnership for a New Generation of Vehicles (PNGV). That was supposed to encourage the development of a new standard for American cars, which would enable them to effectively compete worldwide with European and Japanese vehicles. It was a collaborative research program between the US government and the three largest domestic car companies. The goal was to introduce extremely fuel-efficient vehicles (2.9 l/100 km) to the market by 2003. The project involved eight federal agencies, national laboratories, universities and a technology company, the United States Council for Automotive Research (USCAR), which included DaimlerChrysler, Ford Motor Company and General Motors Corporation. On request of the car manufacturers, the program was canceled in 2001 by the administration of G.W. Bush, and some of its tasks were transferred to another program: the FreedomCAR.

Table 1 summarizes information on the content and statuses of the most important car trade agreements between the EU and other countries/regions of the world.

Table 1.

Statuses of car trade agreements between the EU and other countries/regions of the world

| Region/country | Agreement content | Negotiation status | Duties on passenger vehicles |
|--------------------|---|---|--|
| UK | Comprehensive free trade agreement | 3 of 5 negotiation completed. | – |
| China | Investment treaties, investment protection and market access | Mandate for negotiations since 2013. | 25% |
| USA | Agreement on conformity assessment and customs relief for industrial products | Mandate for negotiations since 2019, further steps planned. | 2.5% on passenger cars, 25% on commercial vehicles |
| India | Comprehensive free trade agreement | Mandate for negotiations since 2007, break after 12 rounds of negotiations (since 2013). Talks on continuation are ongoing. | Up to 100% |
| Mexico | Renewal of the existing agreement | Agreement on the commercial part – 2018. Internal final consultations underway in the EU. | 0% |
| MERCOSUR | Negotiating directives of 1999 | After almost 20 years, agreement on the commercial part – 2019, Internal final consultations are underway in the EU. | 35% |
| ASEAN | Comprehensive agreement with the ASEAN as a region | Negotiations started in 2007. Bilateral since 2009. Discussions about starting regional negotiations ongoing since 2018. | Up to 80% |
| Malaysia | Free trade agreement | Negotiations since 2010, currently discontinued. | 30% |
| Indonesia | Free trade agreement | Negotiations since 2016. | 50% |
| Philippines | Free trade agreement | Negotiations since 2016. | 30% |
| Thailand | Free trade agreement | Negotiations since 2013. Frozen since the 2014 military coup. | 80% |

Source: VDA, 2020, p. 75.

International trade and cross-border supply chains are important success factors for the global automotive industry. Isolation and barriers to entry lead to high prices, costs and trade conflicts. Free trade agreements play a crucial role in lifting these barriers. European manufacturers use solutions negotiated within the EU. Currently, priority is given to agreements with the MERCOSUR countries. The Brazilian and Argentinean markets are seen as the markets of the future, but they impose high tariffs: up to 35% on passenger cars and 18% on car parts. The next priorities for the European car industry are agreements with China, the ASEAN countries and India.

However, in addition to customs barriers, there are also non-tariff trade barriers. The most important of them, according to VDA (2020), include:

- corruption and/or lengthy customs procedures,
- complex regulatory environment,
- unreasonable packaging, labeling and technical standards,
- state subsidies,
- fixed minimum import prices,
- additional fees and commissions, such as for recycling”,
- “buy domestic” policies,
- currency market control,
- import licenses,
- general and/or specific quotas for certain products,
- import bans,
- additional commercial documents.

4.2. Market-driven factors

The second group of external factors are market-driven factors. These include **development of transport**, among others. The increased accessibility to transport facilitated the movement of goods. The result was the opening of individual markets to international products on an unprecedented scale. This development enabled consumers to learn about products and services that were previously unavailable to them (Stonehouse et al., 2001; Szymański, 2001).

A factor that has a huge impact on the dynamics of the globalization process is the **information revolution**. Communication provided by telephone, fax and now, above all, the Internet, enables enterprises to coordinate their activities around the world. The appearance of satellite and online TV contributed to increasing mass awareness of the existence of specific products and brands (Romanowska, 1997, p. 110; Zorska, 1998, p. 22).

An important market factor is **unification of international demand**. This leads to unification of the assortment on a global scale. The universal nature of consumer tastes and product unification result in the need to have global distribution channels. Unification of consumer tastes enables the use of global strategy instruments, such as global market

participation, manufacture of global brands, use of global competitive policies and global marketing.

Unification of technology and means of production is another accelerator of internationalization. The best technological solutions are spreading rapidly, setting new quality, functional and aesthetic standards (Kozmiński, 1999). The use of modern computerized production systems covering design, supply, production and logistics is prerequisite to being competitive. This means world-class manufacturing. However, full product unification for all world markets is not possible, as demand for many goods still varies in different countries. This is due to their traditional cultural differences and established consumption habits. The phenomenon of demand unification itself does not explain globalization of enterprises but is a factor that favors it (Cygler, 2002; Stonehouse et al., 2001). Unification facilitates development of globally unified supply systems. The general trend is that components are purchased from fewer but larger suppliers. Concentration of supply sources ensures cost reduction without compromising on quality. Unification also applies to marketing standards. This makes it possible to design advertising campaigns that may be used all over the world. However, it should be emphasized that some markets, for various reasons, retain their regional distinctiveness. For example, Ford Mondeo was available in the USA under the name Ford Contour and under a completely different brand: Mercury Mystique. Opel Vectra on the British market was called Vauxhall Vectra.

Three factors have the greatest impact on the internationalization process in the automotive sector, as in most manufacturing sectors:

- unification of consumer tastes,
- new information and communication technologies,
- transport development.

Unification of consumer tastes leads directly to unification of global demand. In the automotive sector, this process gained particular dynamics in the 1980s. Product features that are increasingly desired by customers around the world include greater cost effectiveness, reliability, durability and high performance. Due to increasing problems with road traffic and parking space, the ability to combine small external dimensions of the vehicle with a large interior space is valued. Cars that used to be strongly differentiated today display many common features.

The tendency for consumer tastes to become similar makes it easier to participate in major markets because one product, after introducing only minor modifications (or even without them), can serve many foreign markets. This enables the use of a strategy of focusing on similarity. It takes advantage of the fact that a standard product is accepted in most countries. This allows highly standardized products to enter new markets. For example, Toyota, Nissan and Honda focused their activities primarily on basic needs common to all markets they serve, i.e.: quality, reliability and cost effectiveness, and only then on the need for differentiation.

Today, the ability to compete in the automotive sector depends more than ever on technological advancement and the ability to quickly implement **new information and communication techniques and technologies**. They make it possible to replace traditional forms of design work with computerized processes based on advanced mathematical models. An example is the integrated computer-aided design/computer-aided manufacturing (CAD/CAM) system. It enables coordination of design work, starting from the initial phase, i.e. concept, through production simulations to accident simulations (crash tests). This significantly shortened the time of creating designs.

The result of the more extensive use of the ICT is greater flexibility of enterprises and their production systems, more effective logistics, shorter car development time and higher productivity. The Internet has revolutionized the way information is exchanged. The use of modern sales and distribution systems based on e-commerce technology is increasing. The pioneers in this area were German component suppliers who started to conclude B2B (business-to-business) transactions on line. Currently, applications supporting B2C (business-to-customers) transactions with end clients are also increasingly used. Modern methods of data transfer protection enable safe online cooperation both with suppliers and between various R&D and production centers of globally operating enterprises. The Internet is increasingly used for internal communication and training. It may become a car sales channel no. 1 in the future.

Technological developments have led to improvements in **transport** and generated new production and organizational methods. Favorable technical conditions emerged to increase mobility of means of production. Unification and improvement of means of transport offers time and cost savings. Lower transport costs facilitate the regrouping of production centers without fear of reducing the product range. An efficient network of people and information flow has become a key element of the infrastructure of globalization processes. Road transport has won the competition with railroads in freight transport. The former is more cost-efficient, faster and more flexible. Cars play an even greater role in transporting people than in transporting goods. Almost 97% of all trips in Germany are made by cars. Overall, the percentage of people traveling by this means of transport is approximately 83%. Including public transport, this share increases to over 90%. Statistically, 80% of residents in Germany have a car.

Each of the factors discussed affects the automotive sector with different strength. The sensitivity of individual markets to these factors also varies. For example, the pressure to standardize products is weaker in the USA than in Europe. European cars must be exceptionally versatile. In the USA, mainly due to the higher level of motorization in this country, the custom of buying a car for specific purposes persists.

4.3. Cost-driven factors

Sectors requiring high expenditure on R&D and incurring high fixed costs are often more globalized than others. The motive pushing a company to expand abroad is the ability to spread these costs over a larger number of products and thus improve economic performance. The **cost-driven factors** in the background of internationalization of enterprises include:

- economies of scale,
- shortening of product life cycles,
- rapidly changing technologies,
- learning and experience curve,
- logistic improvements,
- cost differences between countries,
- high product development costs.

Global economies of scale occur when national markets are not large enough in relation to the production capacity. However, increasing the scale of operations in one place is accompanied by the risk of rigidity and by susceptibility to crises (Yip, 1996). For this reason, in order to increase production efficiency, the same links in the value chain are often located in different countries. The factors determining the choice of country are primarily cheap labor, access to cheap raw materials and favorable conditions in the host country. Economies of scale result from the participation of a larger number of products in fixed costs. This is due to the spread of fixed costs (e.g. R&D, management, advertising) over a larger number of cars, which leads to a reduction in capital expenditure per product unit. Large-scale production also provides other benefits. For example, the enterprise's negotiating potential in relations with suppliers and governments of host countries increases (Strategor, 1997). Production significantly increased during the period of dynamic development of the global automotive sector without the need to cut the shares of rivals. In a period of stagnation or low growth, each time when one of the market players wins, competitors have to reduce their outputs.

The market forces an increasingly faster pace of development and implementation of new products. As a result, the **product life cycle shortens**. The need to compensate for high R&D expenditure often contributes to the decision to internationalize. Back in the 1980s, a given car model was produced for about a decade. Then, the face-lifting of the model was done at most twice, usually by introducing some minor stylistic changes, without significant technical innovations. Today, models are replaced every five years, on average, and the sector offers more and more of them.

Rapidly changing technologies are another accelerator of internationalization of automotive companies. The time between making a discovery and implementing an innovation has shortened from about 14 years in the 1950s to about 3 years today. However, this result of the shortening of the product life cycle implies larger expenditure on R&D. These factors have a dual impact on the internationalization process. On the one hand, the company internationalizes its activities to minimize the costs of R&D. On the other hand, the effects gained as a result of these expenditures stimulate technological progress, therefore the costs of R&D activities increase (Wysokińska, 2001; Romanowska, 1997). Technological changes are stimulated by changes in the area of communication. For example, the Internet makes it possible to deliver information to suppliers in real time. This makes it easier and faster to process orders. In the automotive sector there have long been visible trends for cars to be assembled to custom orders. Manufacturers such as GM and Toyota began working on the Five-Day-Car project in the late 1990s. This project assumed that the time from the moment the customer placed the order to the moment the car was delivered to them, which used to be approximately two weeks, would be reduced to a maximum of five days. The prerequisite for success of such projects is precise coordination of activities between the manufacturer and component suppliers, and information about each order must reach many places at the same time.

The result of shortening product life cycles and rapidly changing technologies is an increase in the slope of the **knowledge and experience curve**. Greater dynamics and accumulation of effects resulting from learning may, in turn, be an important motive for making the decision to expand abroad.

Cost differentiation between countries is also an important accelerator of internationalization. It enables concentration of production functions in regions with favorable cost levels, diversifying sources of competitive advantage.

High **development costs** place a huge burden on even the largest enterprises. Investments in the R&D sphere are accompanied by a high degree of risk. In order to minimize it, it is necessary to quickly implement results of R&D on as many foreign markets as possible. Another way is to undertake joint R&D, even by directly competing companies. If the partner is an existing foreign competitor, this is another contribution to internationalization of the business.

Increasing efficiency of supply sources and **logistic improvements** are another accelerators of internationalization in the sector. Integrated supply chains are currently becoming an important factor of competitive advantage. This term refers to groups of cooperating enterprises that create chains, networks or spider webs. Their goal is to optimize value added throughout the entire chain through effective management of the entire network of enterprises (Laskowska, 2002). In the times of rapidly changing technologies, the sequential transfer of information between individual entities is ineffective. Modern methods of managing supply chains of automotive companies aim to coordinate functions of a specific group of cooperating companies connected by a logistics network, including suppliers, manufacturers, distributors and customers. Dynamic information transfer within this network is intended to achieve jointly set strategic goals. An example of an integrated system supporting supply chain management is mySAP SCM (mySAP Supply Chain Management) and its module intended for automotive companies: mySAP Automotive. They support the management of modern networked supply chains – from the selection of supply sources, through planning demand for finished products, to controlling their physical distribution. This system enables partners to quickly identify changes on the demand side and use this information throughout the entire logistics chain. It also provides a basis for creating a fully cooperative supply chain that allows for a much more effective response to changes in the company's environment. This translates directly into reduced costs, increased operating efficiency and profits. Other benefits obtained from integrated supply chains include:

- shorter delivery times,
- less disruptions in production,
- lower inventory level,
- higher quality.

In addition to striving to improve efficiency of supply sources and implementing logistical improvements, companies are constantly looking for optimal production systems. A classic example is the Toyota Production System (TPS) that initiated a real revolution of “lean production” in the automotive sector (Monden, 2011). It is based on just-in-time deliveries, Total Quality Management (TQM) and continuous improvement. For many years it was a determinant of efficiency in the sector. Today, strong competition from rivals who copied Toyota's production system has reduced national productivity gaps.

Cost differences between countries are one of the most important factors in choosing the location for a business. It largely explains the inflow of foreign direct investment to in Asia, South America and Central and Eastern Europe. Labor costs were one of the most important reasons for moving production activities abroad in the 1990s. Figure 1 shows differences in hourly wages in the countries that were then the main area of activity of car companies.

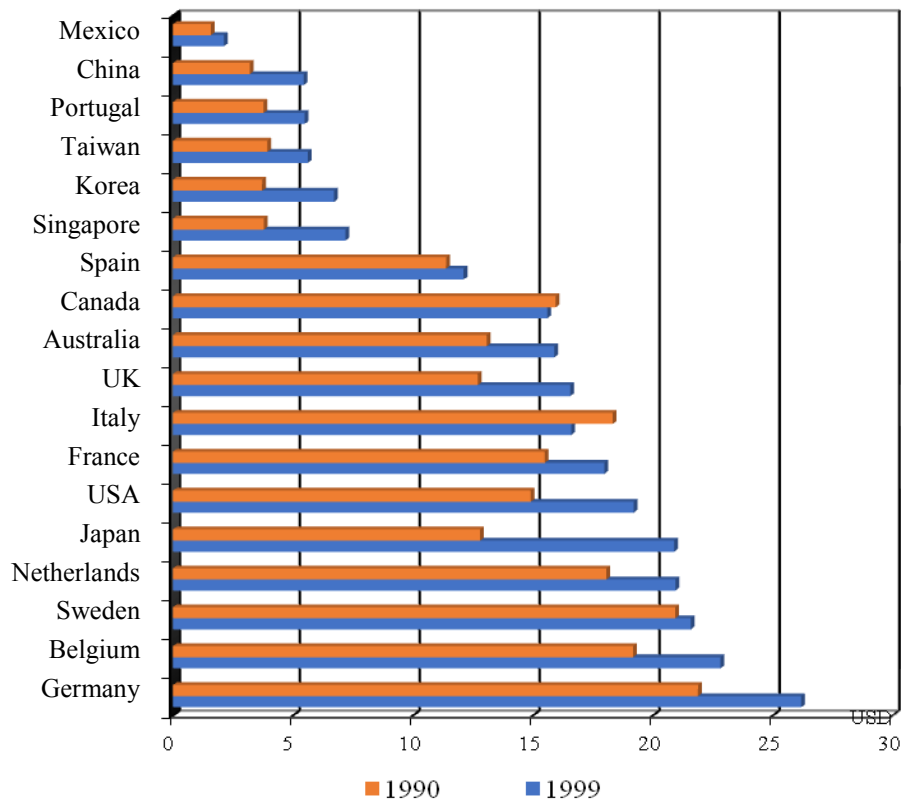


Figure 1. Comparison of hourly labor costs in selected countries in 1990 and 1999.

Source: International Labor Organization 2002, pp. 610-615.

The countries with the highest labor costs are the highly developed countries of Western Europe, Japan and the USA. These are the countries of origin of the largest car manufacturers. High production costs on home markets encouraged companies to move their operations to countries with lower labor costs and cheap raw materials. The dynamics of the internationalization process was influenced by the rates of increase in labor costs in the home countries of these manufacturers. Japan recorded a particularly strong increase in labor costs. This is the main reason for the high dynamics of internationalization of Japanese enterprises. A strong increase in labor costs also occurred in developing Asian countries. They have almost doubled within 10 years in South Korea and Singapore.

In order to assess the impact of labor costs on the choice of location for manufacturing activities, production volumes during the same period were analyzed.

Table 2.*Car production volume in selected countries in the world in 1990 and 2000¹*

| Country | Production (000's) | | Production dynamics (w %) ² | Country's position by production dynamics |
|-----------------------|--------------------|--------|--|---|
| | 1990 | 2000 | | |
| Triad: | | | | |
| EU: | | | | |
| Belgium | 1184,7 | 1156,4 | 97,6 | (20) |
| France | 3295,0 | 2879,6 | 87,4 | (22) |
| Spain | 1971,7 | 2366,4 | 120,0 | (16) |
| Netherlands | 121,3 | 215,1 | 177,3 | (12) |
| Germany | 4626,2 | 5144,2 | 111,2 | (18) |
| Portugal | 60,2 | 190,9 | 317,1 | (5) |
| Sweden | 342,2 | 406,2 | 118,7 | (17) |
| UK | 1334,5 | 1620,5 | 121,4 | (15) |
| Italy | 1874,7 | 1422,5 | 75,9 | (25) |
| North America: | | | | |
| USA | 6077,4 | 5542,7 | 91,2 | (21) |
| Canada | 1226,0 | 1551,2 | 126,5 | (14) |
| Japan | 9948,0 | 8363,5 | 84,1 | (24) |
| Latin America: | | | | |
| Argentina | 81,1 | 238,9 | 294,6 | (6) |
| Brazil | 663,4 | 1347,9 | 203,2 | (10) |
| Mexico | 318,6 | 1132,7 | 355,5 | (2) |
| Asia: | | | | |
| China | 86,6 | 604,7 | 698,3 | (1) |
| India | 189,0 | 632,1 | 334,4 | (4) |
| South Korea | 932,7 | 2602,0 | 279,0 | (7) |
| Malaysia | 85,6 | 295,0 | 344,6 | (3) |
| Taiwan | 107,7 | 263,0 | 244,2 | (8) |
| Türkiye | 149,0 | 297,5 | 199,7 | (11) |
| CE Europe: | | | | |
| Czechia | 190,9 | 428,2 | 224,3 | (9) |
| Poland | 292,0 | 487,1 | 166,8 | (13) |
| Russia | 951,0 | 1022,0 | 107,5 | (19) |
| Australia | 376,8 | 323,6 | 85,9 | (23) |

¹ The list refers to passenger cars and station wagons.² The reference point for calculating production dynamics is the state figures from 1990.

Source: VDA, 2002.

European countries with high labor costs (Germany, Belgium, Sweden, France, Italy and the UK) recorded a relatively small increase in production in the analyzed period. It even decreased in Italy, France and Belgium. The competition structure in these countries did not change significantly. There was no foreign manufacturers on the Swedish and Italian markets, and only Ford in Germany. Fiat assembled small numbers of its cars in France. European and American companies have located their plants in Belgium which does not have its own automotive industry. On the UK market, previously dominated by GM and Ford, Japanese manufacturers began to play an increasingly important role (every third car manufactured there). In the 1990s, strong growth dynamics was observed in the countries of Central and Eastern Europe: in Poland by 66.8%, and in Czechia more than twice.

A higher rate of production growth than on the European continent was then observed in South American countries: Brazil, Argentina and Mexico. Within a decade, car production in Brazil doubled, in Argentina tripled, and in Mexico increased by more than 2.5 times. These countries had very low labor costs at that time. The analysis of the relationship between production volume and labor costs supports the thesis that low labor costs are a factor that strongly attracts foreign investments in the production sphere, and the relationship is as follows: the lower labor costs, the higher the production growth rate.

Cost-driven motives also determined the placement of production in South Asian countries. For example, production in Taiwan and Malaysia increased during the analyzed period by 2.5 and 3.5 times, respectively. However, it was the development of the Chinese market that had the greatest consequences for changes in the competitive structure of the global automotive sector, as is known from today's perspective.

The presented analysis shows that the highest growth is recorded in countries with the lowest labor costs. This means that cost-driven factors, especially labor costs, are one of the most important accelerators of the internationalization of automotive companies. The top 10 countries that recorded the highest production growth rates during the last decade of the last century were China, Mexico, Malaysia, India, Portugal, Argentina, South Korea, Taiwan, Czechia and Brazil. Apart from Czechia and Portugal, all the other countries are situated in South Asia and Latin America. Czechia and Portugal also had some of the lowest labor costs in their region. Therefore, there is a clear relationship between the level of costs and the dynamics of production growth.

High labor costs were one of the reasons why Japanese auto companies lost their cost advantage in the 1990s. This was mainly due to overemployment and low productivity of managerial staff. Japan's share in global employment had been steadily increasing since the early 1980s. To counteract this, Toyota's management decided in 1994 to introduce revolutionary changes in their employment system. They decided to break with the tradition of "lifetime employment", especially observed in the automotive sector, and hire specialists just for the time needed to complete a specific project. Labor costs are the subject of constant analysis also in European and American companies. In their constant fight to reduce costs, companies are often forced to significantly reduce employment and renegotiate remuneration policies.

4.4. Competition-driven factors

Competition-driven factors are related to broadly understood changes in the area of competition. As the protection of domestic markets decreases, the flow of resources between subsidiaries is becoming increasingly easier. Therefore, large areas of integrated economy emerge, in which competitive fight is becoming ever fiercer. Attempts to cope with global competition are made by expanding commercial activities to new foreign markets and by creating new production and distribution networks there (Cygler, 2002). These factors have

a significant impact on all instruments of the global strategy. However, it should be noted that different sectors have different levels of globalization (Yip, 1996). Individual companies, sectors, markets and even countries are affected by these trends to varying degrees and with varying intensity. However, the general global trend supports the thesis about the ongoing process and its strong dynamics.

The competition-driven factors most important in the automotive sector include:

- changes in demand and supply,
- price competition,
- innovative potential,
- strategies towards competitors:
 - market capture,
 - accepting initial losses,
- technical innovations,
- cooperation agreements.

Internationalization in this sector is driven largely by changes in international competition. The most important changes include those on the **demand and supply** sides. The ascending process of concentration of ownership and capital is reflected in the increasing production potential of automotive enterprises. Other premises for internationalization include the acceleration of demand growth on emerging markets and the equalization of mean levels of gross domestic product and consumer income. These trends are accompanied by a tendency for unification of tastes and needs of customers around the world, enabling the marketing of universal models intended for large groups of buyers in many countries. Strong competition in the sector and increasing end user requirements contribute to improvements in terms of quality, durability, style, functionality, reliability and cost effectiveness of cars.

Price competition was one of the most important tools of competitive struggle two or three decades ago. This strategy was particularly often used on developing markets because achieving a production scale enabling competition with leaders is very difficult in mature sectors. Enterprises entering the sector or trying to increase their market shares often engage in price competition.

Strategies towards competitors are also important for the overall course of internationalization. In the 1980s, Renault increased its share in the truck segment using a market capture strategy. For this purpose, they decided to sell cars at prices lower than their competitors, and even dumping prices. The company suffered huge losses but significantly improved its competitive position. The strategy of accepting initial losses in order to introduce a substitute product serves the same purpose. This strategy was used by Japanese companies in the 1960s and 1970s and by Korean companies (Hyundai, Daewoo, Kia) in the 1980s and early 1990s. When introducing a new product to the market, Korean companies imitated Japanese and Western European manufacturers in terms of vehicle style and additional equipment standards. They used cheap, but often outdated, technologies. The market success of such

a product is very strongly correlated with its price. Therefore, it is initially low and competitive vs. other products. Initial losses are accepted in the hope that low costs will gradually lead to production profitability. This strategy carries a serious threat, as low profitability may result in loss of liquidity, then the ability to service debt, and ultimately even bankruptcy of the company. An example is Daewoo Motor which was closed down in 1999 for this reason. Their strategy failed because of the optimistic assumption that the cost decline would be much faster than would result from the principle of accumulating experience. This manufacturer assumed, when entering the automotive sector, that it would not need to accumulate experience from the very beginning, as it could already take advantage of most of the hitherto technical developments of the global automotive industry. Moreover, Daewoo assumed that having more modern machinery than their competitors would enable them to manufacture cars at lower costs. However, it turns out that full use of volume and cost strategies may only occur with high standardization of the product and manufacturing processes. Striving to maximize economies of scale may lead to the so-called “stiffness” of the organization, which means a reduction in adaptability to changes taking place in the company’s environment.

In the current conditions, **technical innovations** have become more important than prices. An example of this phenomenon is Volkswagen which achieved an unquestionable market success (it is the largest manufacturer in Europe) despite prices set at levels clearly higher than those of their competitors (approximately by 10-15%). However, the company’s cars are widely appreciated for their durability and quality of workmanship, which compensate for their high price.

The increasingly weaker market protection and more efficient capital flow promote various **forms of cooperation**. In some cases even between companies directly competing with each other. Cooperation agreements in the automotive sector are concluded in all basic business functions (R&D, manufacture and sales) and adopt various structural configurations.

5. Conclusions and recommendations

Internationalization of a company’s operations may be driven by a number of factors that are strongly interconnected and largely interdependent. They contribute to this process to varying degrees and with varying strength. Those that significantly advance internationalization may be called accelerators. They were divided into the following groups: politics, market, costs and competition. Among the politics-driven factors in the automotive sector, the most important are economic integration, trade liberalization, state interventionism reflected in tax policies, import policies and foreign investment host countries’ policies. Among the market-driven factors with the greatest impact on the internationalization of automotive companies are unification of consumer tastes, new information and communication technologies (IT) and

development of transport. Among the cost-driven factors, the most important are economies of scale, shortening of the product life cycle, rapidly changing technologies, the effect of learning and experience, logistical improvements, cost differentiation between countries and high product development costs. The most important competition-driven factors in the automotive sector include changes in demand and supply, price competition, innovation potential, competitive strategies, technical innovations and cooperation agreements.

This study is a report on qualitative research, the aim of which was to analyze factors influencing the adoption and development of internationalization strategies by automotive enterprises from the birth of the sector to the present day. The research results make a contribution to the knowledge about internationalization and provide a context that makes it easier to understand the current balance of power and competition structure in this sector.

The limitations of the study include its lack of comprehensiveness. This is because of the inability to obtain sufficient data. The data on the subject is dispersed, discontinuous and offered in various layouts. This makes it impossible to precisely track the development of specific phenomena over time and to conduct comprehensive comparative analyses. The research must be fragmentary, which seems obvious in the light of the above comments. However, despite these limitations, it expands knowledge in the researched area.

Further research in this area is justified for the reasons mentioned above. It is highly probable that not all relationships have been discovered and described. An additional premise is that the world economy is in the process of constant transformation. The importance of the described factors and the strength of their impact on the overall shape of enterprise internationalization are changing.

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